WEBVTT

NOTE duration:"01:14:10" NOTE recognizability:0.824

NOTE language:en-us

NOTE Confidence: 0.857381942857143

 $00:00:00.000 \longrightarrow 00:00:04.298$ Thank you Trisha and and welcome everybody.

NOTE Confidence: 0.857381942857143

 $00:00:04.300 \longrightarrow 00:00:07.055$ The and welcome to the

NOTE Confidence: 0.857381942857143

 $00:00:07.055 \longrightarrow 00:00:08.708$ Lussman Award celebration.

NOTE Confidence: 0.857381942857143

 $00:00:08.710 \longrightarrow 00:00:13.435$ The Lussman Awards are just a wonderful.

NOTE Confidence: 0.857381942857143

 $00:00:13.440 \longrightarrow 00:00:15.770$ Opportunity to acknowledge the incredible

NOTE Confidence: 0.857381942857143

 $00:00:15.770 \longrightarrow 00:00:18.589$ work done by young scientists in

NOTE Confidence: 0.857381942857143

00:00:18.589 --> 00:00:21.109 the Department of Psychiatry and the

NOTE Confidence: 0.857381942857143

 $00:00:21.109 \longrightarrow 00:00:23.030$ Residency and Fellowship programs.

NOTE Confidence: 0.857381942857143

 $00:00:23.030 \longrightarrow 00:00:25.487$ It's also a great time to celebrate

NOTE Confidence: 0.857381942857143

 $00:00:25.487 \longrightarrow 00:00:27.571$ the the career and accomplishments

NOTE Confidence: 0.857381942857143

 $00{:}00{:}27.571 \dashrightarrow 00{:}00{:}30.439$ of Seymour Lassman and and Doctor

NOTE Confidence: 0.857381942857143

 $00{:}00{:}30.439 \dashrightarrow 00{:}00{:}32.256$ Pittenger will describe his

NOTE Confidence: 0.857381942857143

 $00:00:32.256 \longrightarrow 00:00:34.626$ background in just a little bit.

 $00:00:34.630 \longrightarrow 00:00:36.634$ But the Lussman family plays a

NOTE Confidence: 0.857381942857143

00:00:36.634 --> 00:00:38.909 special role in the hearts of

NOTE Confidence: 0.857381942857143

 $00:00:38.909 \longrightarrow 00:00:40.645$ the Department of Psychiatry.

NOTE Confidence: 0.857381942857143

 $00:00:40.650 \longrightarrow 00:00:42.570$ It's a family that's been involved,

NOTE Confidence: 0.857381942857143

 $00:00:42.570 \longrightarrow 00:00:44.370$ connected to the department

NOTE Confidence: 0.857381942857143

 $00:00:44.370 \longrightarrow 00:00:45.720$ across 3 generations,

NOTE Confidence: 0.857381942857143

 $00:00:45.720 \longrightarrow 00:00:47.814$ and I particularly want to add

NOTE Confidence: 0.857381942857143

 $00:00:47.814 \longrightarrow 00:00:50.334$ my thanks to the the things that

NOTE Confidence: 0.857381942857143

 $00:00:50.334 \longrightarrow 00:00:52.777$ I know that that Chris and and.

NOTE Confidence: 0.857381942857143

00:00:52.780 --> 00:00:55.810 And perhaps others will express

NOTE Confidence: 0.857381942857143

 $00{:}00{:}55.810 \dashrightarrow 00{:}00{:}58.840$ to Susan and Jonathan Katz,

NOTE Confidence: 0.857381942857143

00:00:58.840 --> 00:01:02.000 who've been really incredibly supportive

NOTE Confidence: 0.857381942857143

 $00:01:02.000 \longrightarrow 00:01:06.302$ of our ability to continue the lesbian

NOTE Confidence: 0.857381942857143

 $00{:}01{:}06.302 \dashrightarrow 00{:}01{:}09.416$ awards over the last many years.

NOTE Confidence: 0.857381942857143

 $00:01:09.420 \longrightarrow 00:01:11.485$ The last man awards have really emerged

NOTE Confidence: 0.857381942857143

 $00:01:11.485 \longrightarrow 00:01:14.300$ as one of the nation's leading awards

 $00:01:14.300 \longrightarrow 00:01:17.660$ for research done in the residency.

NOTE Confidence: 0.857381942857143

 $00{:}01{:}17.660 \dashrightarrow 00{:}01{:}20.830$ And if you go back over the list of honorees,

NOTE Confidence: 0.857381942857143

 $00:01:20.830 \longrightarrow 00:01:22.665$ you'll see many people who

NOTE Confidence: 0.857381942857143

 $00:01:22.665 \longrightarrow 00:01:24.965$ have emerged as leaders in the

NOTE Confidence: 0.857381942857143

 $00{:}01{:}24.965 \dashrightarrow 00{:}01{:}27.335$ Department of Symmetry here at Yale.

NOTE Confidence: 0.857381942857143 00:01:27.340 --> 00:01:27.990 But really,

NOTE Confidence: 0.857381942857143

 $00:01:27.990 \longrightarrow 00:01:31.975$ all across the country and and people

NOTE Confidence: 0.857381942857143

 $00{:}01{:}31.975 \dashrightarrow 00{:}01{:}34.960$ who've had whose impact has really.

NOTE Confidence: 0.90280067777778

 $00:01:37.930 \longrightarrow 00:01:40.384$ Been measurable on the overall effort

NOTE Confidence: 0.90280067777778

 $00{:}01{:}40.384 \dashrightarrow 00{:}01{:}43.765$ to relieve the the public health burden

NOTE Confidence: 0.90280067777778

00:01:43.765 --> 00:01:46.550 of psychiatric disorders and addictions,

NOTE Confidence: 0.90280067777778

 $00:01:46.550 \longrightarrow 00:01:48.776$ so this is really an incredibly

NOTE Confidence: 0.90280067777778

 $00{:}01{:}48.776 \dashrightarrow 00{:}01{:}51.092$ exciting and special day and I

NOTE Confidence: 0.90280067777778

 $00{:}01{:}51.092 \dashrightarrow 00{:}01{:}52.987$ look forward to the presentations.

NOTE Confidence: 0.90280067777778

 $00:01:52.990 \longrightarrow 00:01:54.694$ I just wanted to add one

 $00:01:54.694 \longrightarrow 00:01:55.830$ thing before I close.

NOTE Confidence: 0.90280067777778

 $00:01:55.830 \longrightarrow 00:01:58.702$ There's no grand rounds next week due to

NOTE Confidence: 0.90280067777778

00:01:58.702 --> 00:02:01.386 more because of the Memorial Day holiday,

NOTE Confidence: 0.90280067777778

 $00:02:01.390 \longrightarrow 00:02:02.866$ but the following Friday,

NOTE Confidence: 0.90280067777778

 $00:02:02.866 \longrightarrow 00:02:05.892$ June 3rd will have the state of the

NOTE Confidence: 0.90280067777778

 $00{:}02{:}05.892 \dashrightarrow 00{:}02{:}08.100$ the state of the department address.

NOTE Confidence: 0.90280067777778

 $00:02:08.100 \longrightarrow 00:02:10.924$ So I hope that we'll see everybody there

NOTE Confidence: 0.90280067777778

 $00:02:10.924 \longrightarrow 00:02:14.066$ for the state of the department address.

NOTE Confidence: 0.9330850525

 $00:02:16.630 \longrightarrow 00:02:18.440$ Which is also another great

NOTE Confidence: 0.9330850525

 $00:02:18.440 \longrightarrow 00:02:20.250$ opportunity to reflect on the

NOTE Confidence: 0.9330850525

 $00{:}02{:}20.314 \longrightarrow 00{:}02{:}22.408$ year that we've all been through.

NOTE Confidence: 0.9330850525

 $00:02:22.410 \longrightarrow 00:02:24.094$ So without further ado,

NOTE Confidence: 0.9330850525

 $00{:}02{:}24.094 \dashrightarrow 00{:}02{:}26.199$ let me introduce Doctor Chris

NOTE Confidence: 0.9330850525

00:02:26.199 --> 00:02:28.359 Bittinger who will get us underway.

NOTE Confidence: 0.826254696666667

00:02:42.140 --> 00:02:43.268 Chris, you're muted.

NOTE Confidence: 0.89862052

 $00{:}02{:}55.980 \dashrightarrow 00{:}02{:}57.870$ There we go. You think that after two

 $00:02:57.880 \dashrightarrow 00:03:01.230$ years I have this figured out. That's OK.

NOTE Confidence: 0.91852538

 $00:03:03.760 \longrightarrow 00:03:05.422$ So now I just need your

NOTE Confidence: 0.91852538

 $00:03:05.422 \longrightarrow 00:03:07.810$ screen back slides back.

NOTE Confidence: 0.34211177

00:03:19.250 --> 00:03:21.530 And multitude of slide decks,

NOTE Confidence: 0.34211177

 $00{:}03{:}21.530 \dashrightarrow 00{:}03{:}26.078$ it's all well. There we go.

NOTE Confidence: 0.34211177

 $00:03:26.080 \longrightarrow 00:03:29.872$ Good alright, let me try again.

NOTE Confidence: 0.34211177

 $00:03:29.872 \longrightarrow 00:03:30.838$ Welcome everyone.

NOTE Confidence: 0.34211177

00:03:30.840 --> 00:03:32.656 It's a pleasure to have you all join

NOTE Confidence: 0.34211177

 $00:03:32.656 \longrightarrow 00:03:34.798$ us for this year's last minute awards.

NOTE Confidence: 0.34211177

 $00:03:34.800 \longrightarrow 00:03:35.454$ As John said,

NOTE Confidence: 0.34211177

 $00:03:35.454 \longrightarrow 00:03:36.980$ this is really a special day in

NOTE Confidence: 0.34211177

 $00{:}03{:}37.032 \dashrightarrow 00{:}03{:}38.691$ the life of the department and one

NOTE Confidence: 0.34211177

 $00{:}03{:}38.691 \dashrightarrow 00{:}03{:}40.778$ of my favorite grand rounds of the

NOTE Confidence: 0.34211177

 $00{:}03{:}40.778 \dashrightarrow 00{:}03{:}42.992$ year as we celebrate our commitment

NOTE Confidence: 0.34211177

 $00:03:42.992 \longrightarrow 00:03:44.769$ to training and the spectacular

00:03:44.769 --> 00:03:47.777 work of some of our of some of our

NOTE Confidence: 0.34211177

 $00{:}03{:}47.777 \dashrightarrow 00{:}03{:}50.010$ trainees as well as our commitment

NOTE Confidence: 0.34211177

 $00:03:50.010 \longrightarrow 00:03:51.900$ to mentorship and the participation

NOTE Confidence: 0.34211177

 $00:03:51.970 \longrightarrow 00:03:53.968$ of mentors in the success of

NOTE Confidence: 0.34211177

 $00:03:53.968 \longrightarrow 00:03:56.566$ these trainees and the history.

NOTE Confidence: 0.34211177

00:03:56.566 --> 00:03:58.218 Of of Seymour Lessman,

NOTE Confidence: 0.34211177

 $00:03:58.220 \longrightarrow 00:04:00.540$ who was a giant in in our department

NOTE Confidence: 0.34211177

 $00:04:00.540 \longrightarrow 00:04:02.902$ and then the Child Study center years

NOTE Confidence: 0.34211177

 $00{:}04{:}02.902 \dashrightarrow 00{:}04{:}05.158$ ago and whose family has generously

NOTE Confidence: 0.34211177

 $00:04:05.158 \longrightarrow 00:04:07.639$ supported this award since 1973.

NOTE Confidence: 0.34211177

 $00{:}04{:}07.639 \dashrightarrow 00{:}04{:}11.053$ As an in honor and continuation

NOTE Confidence: 0.34211177

 $00:04:11.053 \longrightarrow 00:04:12.760$ of his legacy.

NOTE Confidence: 0.34211177

00:04:12.760 --> 00:04:13.714 So, Seymour Lessman,

NOTE Confidence: 0.34211177

 $00:04:13.714 \longrightarrow 00:04:15.622$ for those of you who aren't

NOTE Confidence: 0.34211177

 $00:04:15.622 \longrightarrow 00:04:17.960$ familiar with him from previous from

NOTE Confidence: 0.34211177

 $00:04:17.960 \longrightarrow 00:04:19.524$ previous lesson award celebrations,

 $00:04:19.530 \longrightarrow 00:04:21.914$ had a remarkable career.

NOTE Confidence: 0.34211177

 $00:04:21.914 \longrightarrow 00:04:24.412$ He served in the Army in World War Two.

NOTE Confidence: 0.34211177

00:04:24.412 --> 00:04:26.476 Then he obtained his PhD in psychology

NOTE Confidence: 0.34211177

 $00:04:26.476 \longrightarrow 00:04:28.474$ from the University of Chicago in

NOTE Confidence: 0.34211177

 $00{:}04{:}28.474 \dashrightarrow 00{:}04{:}31.209$ his MD at the University of Illinois.

NOTE Confidence: 0.34211177

 $00{:}04{:}31.210 \dashrightarrow 00{:}04{:}33.130$ And while at the University of

NOTE Confidence: 0.34211177

 $00:04:33.130 \longrightarrow 00:04:35.129$ Illinois he became interested in the

NOTE Confidence: 0.34211177

 $00:04:35.129 \longrightarrow 00:04:37.127$ Physiology and behavior of newborn infants.

NOTE Confidence: 0.34211177

 $00:04:37.130 \longrightarrow 00:04:39.146$ This was a time when the field was rife

NOTE Confidence: 0.34211177

 $00:04:39.146 \longrightarrow 00:04:41.700$ with arguments about nature versus nurture,

NOTE Confidence: 0.34211177

 $00:04:41.700 \longrightarrow 00:04:43.408$ which I think we've long since transcended.

NOTE Confidence: 0.34211177

00:04:43.410 --> 00:04:44.298 Because of course,

NOTE Confidence: 0.34211177

 $00{:}04{:}44.298 \dashrightarrow 00{:}04{:}45.186$ all interesting things.

NOTE Confidence: 0.34211177

00:04:45.190 --> 00:04:47.810 Or both, but at that point this was a very,

NOTE Confidence: 0.34211177

00:04:47.810 --> 00:04:50.504 you know, active point of of

 $00:04:50.504 \longrightarrow 00:04:53.170$ disagreement and conflict in the field.

NOTE Confidence: 0.34211177

00:04:53.170 --> 00:04:55.510 And that became the focus of

NOTE Confidence: 0.34211177

00:04:55.510 --> 00:04:57.092 doctor Glassman's work.

NOTE Confidence: 0.34211177

 $00:04:57.092 \longrightarrow 00:04:59.390$ He came to Yale in 1955,

NOTE Confidence: 0.34211177

 $00:04:59.390 \longrightarrow 00:05:00.990$ where he completed psychiatry,

NOTE Confidence: 0.34211177

 $00{:}05{:}00.990 \dashrightarrow 00{:}05{:}02.774$ residency and Child fellowship,

NOTE Confidence: 0.34211177

 $00:05:02.774 \longrightarrow 00:05:06.350$ and he joined the psychiatry faculty in 1962.

NOTE Confidence: 0.34211177

 $00:05:06.350 \longrightarrow 00:05:07.770$ And then two years later,

NOTE Confidence: 0.34211177

 $00{:}05{:}07.770 \dashrightarrow 00{:}05{:}09.660$ he was promoted to the rank

NOTE Confidence: 0.34211177

 $00:05:09.660 \longrightarrow 00:05:10.605$ of full professor.

NOTE Confidence: 0.34211177

 $00{:}05{:}10.610 \dashrightarrow 00{:}05{:}12.199$ I can clearly remember when I was

NOTE Confidence: 0.34211177

 $00:05:12.199 \longrightarrow 00:05:13.978$ a trainee and John would make that

NOTE Confidence: 0.34211177

 $00{:}05{:}13.978 \dashrightarrow 00{:}05{:}15.857$ statement that he was promoted to full

NOTE Confidence: 0.34211177

00:05:15.857 --> 00:05:17.423 professor just two years later and

NOTE Confidence: 0.34211177

00:05:17.423 --> 00:05:19.890 John Pier out, all of us and and say,

NOTE Confidence: 0.34211177

 $00:05:19.890 \longrightarrow 00:05:23.218$ let that be a model for you, but.

 $00{:}05{:}23.218 \dashrightarrow 00{:}05{:}26.130$ But truly remarkable remarkable

NOTE Confidence: 0.34211177

 $00:05:26.130 \longrightarrow 00:05:27.676$ achievement on the faculty.

NOTE Confidence: 0.34211177

 $00:05:27.676 \longrightarrow 00:05:29.036$ He was a dedicated teacher,

NOTE Confidence: 0.34211177

 $00:05:29.040 \longrightarrow 00:05:29.844$ gifted clinician,

NOTE Confidence: 0.34211177

 $00{:}05{:}29.844 \dashrightarrow 00{:}05{:}32.256$ and a careful and creative scientist.

NOTE Confidence: 0.34211177

 $00:05:32.260 \longrightarrow 00:05:34.514$ He became increasingly interested in

NOTE Confidence: 0.34211177

 $00:05:34.514 \longrightarrow 00:05:36.998$ problems of impulse control and adolescence,

NOTE Confidence: 0.34211177

 $00:05:37.000 \longrightarrow 00:05:39.080$ and among numerous other contributions.

NOTE Confidence: 0.34211177

 $00:05:39.080 \longrightarrow 00:05:40.934$ He was a key member of a group of

NOTE Confidence: 0.34211177

 $00:05:40.934 \longrightarrow 00:05:42.378$ scholars together with Al Solnit,

NOTE Confidence: 0.34211177

 $00{:}05{:}42.380 \dashrightarrow 00{:}05{:}43.890$ Anna Freud and Joe Goldstein,

NOTE Confidence: 0.34211177

 $00{:}05{:}43.890 \dashrightarrow 00{:}05{:}46.130$ who wrote a landmark text in the

NOTE Confidence: 0.34211177

 $00{:}05{:}46.130 \dashrightarrow 00{:}05{:}48.050$ field of child maltreatment beyond

NOTE Confidence: 0.34211177

 $00:05:48.050 \longrightarrow 00:05:50.708$ the best interests of the child.

NOTE Confidence: 0.34211177 00:05:50.710 --> 00:05:51.031 See, NOTE Confidence: 0.34211177 $00:05:51.031 \longrightarrow 00:05:52.636$ we're lussman died tragically at

NOTE Confidence: 0.34211177

 $00{:}05{:}52.636 \dashrightarrow 00{:}05{:}54.948$ a young age in a boating accident

NOTE Confidence: 0.34211177

 $00:05:54.948 \longrightarrow 00:05:57.425$ in the early 1970s and one of the

NOTE Confidence: 0.34211177

 $00:05:57.425 \longrightarrow 00:06:00.085$ leading lights in our in our field was

NOTE Confidence: 0.34211177

 $00:06:00.085 \longrightarrow 00:06:02.960$ taken from us and shortly thereafter in 1973.

NOTE Confidence: 0.34211177

 $00{:}06{:}02.960 \dashrightarrow 00{:}06{:}04.810$ His family created this award,

NOTE Confidence: 0.34211177

 $00:06:04.810 \longrightarrow 00:06:06.785$ and it's been given continuously

NOTE Confidence: 0.34211177

00:06:06.785 --> 00:06:08.498 every year since 1973 with I,

NOTE Confidence: 0.34211177

00:06:08.498 --> 00:06:08.850 I think,

NOTE Confidence: 0.34211177

 $00:06:08.850 \longrightarrow 00:06:11.940$ puts us at 49 years.

NOTE Confidence: 0.34211177

00:06:11.940 --> 00:06:12.885 As John said,

NOTE Confidence: 0.34211177

 $00:06:12.885 \longrightarrow 00:06:14.775$ if you look at the the

NOTE Confidence: 0.34211177

 $00:06:14.775 \longrightarrow 00:06:16.340$ plaque of past winners,

NOTE Confidence: 0.34211177

 $00:06:16.340 \longrightarrow 00:06:17.550$ you'll see quite a few

NOTE Confidence: 0.34211177

 $00:06:17.550 \longrightarrow 00:06:18.518$ leading lights of psychic.

NOTE Confidence: 0.84228034

 $00{:}06{:}18.520 \dashrightarrow 00{:}06{:}20.134$ If you're both at our institution

 $00:06:20.134 \longrightarrow 00:06:21.210$ and across the country,

NOTE Confidence: 0.84228034

 $00:06:21.210 \longrightarrow 00:06:24.633$ and so are our awardees today are

NOTE Confidence: 0.84228034

00:06:24.633 --> 00:06:26.890 joining an illustrious company.

NOTE Confidence: 0.87271613

 $00:06:28.110 \longrightarrow 00:06:29.910$ As I said, we're not only

NOTE Confidence: 0.870953511111111

 $00{:}06{:}29.920 \dashrightarrow 00{:}06{:}32.185$ celebrating the awardees and the

NOTE Confidence: 0.870953511111111

 $00:06:32.185 \longrightarrow 00:06:34.222$ accomplishments of our trainings here

NOTE Confidence: 0.870953511111111

00:06:34.222 --> 00:06:35.554 in the Yale Department of Psychiatry,

NOTE Confidence: 0.870953511111111

 $00:06:35.560 \longrightarrow 00:06:37.720$ but also of their mentors.

NOTE Confidence: 0.870953511111111

 $00:06:37.720 \longrightarrow 00:06:39.496$ None of us succeed without the

NOTE Confidence: 0.870953511111111

 $00:06:39.496 \longrightarrow 00:06:41.490$ support of our of our mentors.

NOTE Confidence: 0.8709535111111111

 $00:06:41.490 \longrightarrow 00:06:42.270$ They're modeling.

NOTE Confidence: 0.870953511111111

00:06:42.270 --> 00:06:45.236 You know financial support, their guidance,

NOTE Confidence: 0.870953511111111

 $00{:}06{:}45.236 \dashrightarrow 00{:}06{:}47.476$ and so we're going to have each of our

NOTE Confidence: 0.870953511111111

 $00:06:47.476 \longrightarrow 00:06:51.723$ awardees introduced by by a key mentor and.

NOTE Confidence: 0.870953511111111

 $00:06:51.723 \longrightarrow 00:06:54.054$ And while the focus today is on

 $00:06:54.054 \longrightarrow 00:06:55.810$ the trainees and their work,

NOTE Confidence: 0.870953511111111

 $00{:}06{:}55.810 \dashrightarrow 00{:}06{:}59.177$ we we applaud the mentors as well.

NOTE Confidence: 0.870953511111111

 $00:06:59.180 \longrightarrow 00:07:01.574$ So with no, I'm sorry I should just be.

NOTE Confidence: 0.870953511111111

 $00:07:01.580 \dashrightarrow 00:07:03.449$ I've already thanked the the Lussman family.

NOTE Confidence: 0.870953511111111

 $00:07:03.450 \longrightarrow 00:07:05.424$ I also want to thank the

NOTE Confidence: 0.870953511111111

00:07:05.424 --> 00:07:06.740 Lussman Awards Review Committee,

NOTE Confidence: 0.870953511111111

 $00:07:06.740 \longrightarrow 00:07:09.158$ group of faculty who joined us,

NOTE Confidence: 0.870953511111111

 $00:07:09.160 \longrightarrow 00:07:11.688$ YOUNGSTON show Marina Picciotto.

NOTE Confidence: 0.8709535111111111

00:07:11.688 --> 00:07:13.070 Wow, if I just rattle them off

NOTE Confidence: 0.870953511111111

 $00:07:13.070 \longrightarrow 00:07:13.770$ the top of my head,

NOTE Confidence: 0.870953511111111

 $00:07:13.770 \longrightarrow 00:07:14.845$ I'm going to leave someone

NOTE Confidence: 0.870953511111111

 $00:07:14.845 \longrightarrow 00:07:16.240$ out and that would be upset.

NOTE Confidence: 0.870953511111111

 $00:07:16.240 \longrightarrow 00:07:18.552$ But just I appreciate the Group of the

NOTE Confidence: 0.8709535111111111

00:07:18.552 --> 00:07:20.884 Group of faculty who helped us review

NOTE Confidence: 0.870953511111111

 $00:07:20.884 \longrightarrow 00:07:23.010$ these for the last several years.

NOTE Confidence: 0.870953511111111

 $00:07:23.010 \longrightarrow 00:07:25.050$ So without further ado,

 $00:07:25.050 \longrightarrow 00:07:28.432$ I will invite Bob Rosenheck guns to

NOTE Confidence: 0.870953511111111

 $00:07:28.432 \longrightarrow 00:07:30.686$ introduce our first winner of us been

NOTE Confidence: 0.870953511111111

 $00:07:30.686 \longrightarrow 00:07:34.230$ awarded first prize winner for 2022.

NOTE Confidence: 0.870953511111111

00:07:34.230 --> 00:07:39.830 And that's the wrong one. All right?

NOTE Confidence: 0.870953511111111

 $00:07:39.830 \longrightarrow 00:07:42.306$ So while we go ahead, go ahead.

NOTE Confidence: 0.870953511111111

00:07:42.306 --> 00:07:43.676 I'm working out the technical.

NOTE Confidence: 0.584260775

00:07:43.970 --> 00:07:46.660 Yeah well, while we fiddled with the slides,

NOTE Confidence: 0.584260775

00:07:46.660 --> 00:07:49.450 I very happy to introduce Tanner

NOTE Confidence: 0.584260775

 $00:07:49.450 \longrightarrow 00:07:53.620$ boomers back from Grand Forks, ND.

NOTE Confidence: 0.584260775

 $00:07:53.620 \longrightarrow 00:07:57.292$ And of course, he has been a superstar

NOTE Confidence: 0.584260775

 $00{:}07{:}57.292 \dashrightarrow 00{:}08{:}00.570$ who published 15 papers as a resident.

NOTE Confidence: 0.584260775

 $00{:}08{:}00.570 \dashrightarrow 00{:}08{:}03.699$ And worked very closely with me and

NOTE Confidence: 0.584260775

 $00{:}08{:}03.699 \dashrightarrow 00{:}08{:}06.800$ a group that was Co led by Greg Lee,

NOTE Confidence: 0.584260775

 $00:08:06.800 \longrightarrow 00:08:08.416$ who's a young investigator.

NOTE Confidence: 0.584260775

 $00:08:08.416 \longrightarrow 00:08:11.000$ All of you should get to know.

00:08:13.360 --> 00:08:16.828 Tanner, I thought his magnificent

NOTE Confidence: 0.86296636

 $00:08:16.828 \longrightarrow 00:08:20.220$ productivity was a product of coming

NOTE Confidence: 0.913016714285715

 $00:08:20.220 \longrightarrow 00:08:23.514$ to Yale, but in fact he was the superstar

NOTE Confidence: 0.913016714285715

00:08:23.514 --> 00:08:26.250 before he came to Yale, graduating

NOTE Confidence: 0.630762337

00:08:26.360 --> 00:08:29.500 summa *** laude from college and getting an

NOTE Confidence: 0.630762337

 $00{:}08{:}29.500 \dashrightarrow 00{:}08{:}32.667$ MPH from Hopkins and working with a number

NOTE Confidence: 0.91191656

 $00:08:32.680 \longrightarrow 00:08:36.228$ of leading lights there.

NOTE Confidence: 0.91191656

 $00:08:36.230 \longrightarrow 00:08:37.802$ His interests are broad.

NOTE Confidence: 0.91191656

 $00{:}08{:}37.802 \longrightarrow 00{:}08{:}39.767$ His curiosity of is boundless,

NOTE Confidence: 0.91191656

00:08:39.770 --> 00:08:42.170 and what I particularly would emphasize

NOTE Confidence: 0.91191656

 $00:08:42.170 \longrightarrow 00:08:45.726$ is the not just the number of papers,

NOTE Confidence: 0.91191656

 $00:08:45.730 \longrightarrow 00:08:48.068$ but the fact that he has emerged

NOTE Confidence: 0.91191656

 $00:08:48.068 \longrightarrow 00:08:50.429$ as a very talented writer.

NOTE Confidence: 0.91191656

 $00:08:50.430 \longrightarrow 00:08:53.482$ And I think we often don't recognize

NOTE Confidence: 0.91191656

 $00:08:53.482 \longrightarrow 00:08:56.891$ how important it is to cultivate the

NOTE Confidence: 0.91191656

 $00{:}08{:}56.891 \dashrightarrow 00{:}08{:}59.406$ skills of clear scientific writing.

 $00:08:59.410 \longrightarrow 00:09:02.133$ And he's become just a pleasure to

NOTE Confidence: 0.91191656

 $00:09:02.133 \longrightarrow 00:09:05.680$ to read his work as it's developed.

NOTE Confidence: 0.91191656

 $00:09:05.680 \longrightarrow 00:09:07.720$ And so without.

NOTE Confidence: 0.91191656

00:09:07.720 --> 00:09:10.033 More ado, let me hand it over to Tanner,

NOTE Confidence: 0.91191656

 $00:09:10.040 \longrightarrow 00:09:12.160$ who will present his paper that

NOTE Confidence: 0.91191656

00:09:12.160 --> 00:09:13.579 appeared in JAMA Psychiatry.

NOTE Confidence: 0.907708724

 $00:09:16.490 \longrightarrow 00:09:19.040$ Well, thank you so much Doctor

NOTE Confidence: 0.907708724

00:09:19.040 --> 00:09:21.925 Rosenak and I just want to thank Bob.

NOTE Confidence: 0.907708724

 $00:09:21.930 \longrightarrow 00:09:23.370$ You know, despite what he

NOTE Confidence: 0.907708724

 $00:09:23.370 \longrightarrow 00:09:24.522$ says coming into residency,

NOTE Confidence: 0.907708724

00:09:24.530 --> 00:09:27.470 I knew very very little about about

NOTE Confidence: 0.907708724

 $00:09:27.470 \dashrightarrow 00:09:30.200$ research and and most of what I've learned

NOTE Confidence: 0.907708724

 $00:09:30.200 \longrightarrow 00:09:32.201$ can be attributed to Doctor Rosenak,

NOTE Confidence: 0.907708724

00:09:32.201 --> 00:09:34.560 who's who's just been such an amazing

NOTE Confidence: 0.907708724

 $00:09:34.626 \longrightarrow 00:09:36.565$ mentor to me and I really could

00:09:36.565 --> 00:09:38.544 not have asked for a better mentor

NOTE Confidence: 0.907708724

 $00{:}09{:}38.544 \dashrightarrow 00{:}09{:}40.584$ when I came into to residency.

NOTE Confidence: 0.907708724

 $00:09:40.584 \longrightarrow 00:09:43.948$ I also want to thank Gregory as.

NOTE Confidence: 0.907708724

 $00:09:43.948 \longrightarrow 00:09:46.882$ Thompson, our senior author on this

NOTE Confidence: 0.907708724

 $00:09:46.882 \longrightarrow 00:09:49.932$ paper who's been a friend and a mentor

NOTE Confidence: 0.907708724

 $00:09:49.932 \longrightarrow 00:09:51.600$ to me over the last couple years,

NOTE Confidence: 0.907708724

 $00:09:51.600 \longrightarrow 00:09:51.859$ especially.

NOTE Confidence: 0.907708724

 $00:09:51.859 \longrightarrow 00:09:53.672$ And I also just want to thank

NOTE Confidence: 0.907708724

00:09:53.672 --> 00:09:55.260 the the Lossman Foundation.

NOTE Confidence: 0.907708724

 $00:09:55.260 \longrightarrow 00:09:57.908$ It was fun to hear more about about

NOTE Confidence: 0.907708724

 $00:09:57.908 \longrightarrow 00:09:59.764$ Doctor Lossman for for their support

NOTE Confidence: 0.907708724

 $00:09:59.764 \longrightarrow 00:10:01.612$ of of resident research and giving

NOTE Confidence: 0.907708724

 $00:10:01.612 \longrightarrow 00:10:03.798$ us really the opportunity to share

NOTE Confidence: 0.907708724

00:10:03.798 --> 00:10:05.618 our research with the department.

NOTE Confidence: 0.907708724

 $00:10:05.620 \longrightarrow 00:10:07.588$ So thank you.

NOTE Confidence: 0.907708724

 $00:10:07.590 \longrightarrow 00:10:09.582$ Turning to the title of our paper

 $00:10:09.582 \longrightarrow 00:10:11.660$ over the next 15 or 20 minutes or so,

NOTE Confidence: 0.907708724

00:10:11.660 --> 00:10:13.683 I'm going to be talking about recent

NOTE Confidence: 0.907708724

 $00:10:13.683 \longrightarrow 00:10:15.877$ trends in the national suicide attempt

NOTE Confidence: 0.907708724

00:10:15.877 --> 00:10:17.977 rate and specifically looking at.

NOTE Confidence: 0.907708724

 $00{:}10{:}17.980 \dashrightarrow 00{:}10{:}19.924$ The mental health utilization

NOTE Confidence: 0.907708724

 $00:10:19.924 \longrightarrow 00:10:21.868$ of individuals who attempted

NOTE Confidence: 0.907708724

 $00:10:21.868 \longrightarrow 00:10:24.919$ suicide from 2008 to 2019.

NOTE Confidence: 0.907708724

 $00:10:24.919 \longrightarrow 00:10:27.913$ Suicide prevention has been an interest

NOTE Confidence: 0.907708724

00:10:27.913 --> 00:10:31.280 of mine since since medical school,

NOTE Confidence: 0.907708724

 $00:10:31.280 \longrightarrow 00:10:33.570$ and I think it's one of not only the greatest

NOTE Confidence: 0.907708724

00:10:33.622 --> 00:10:35.758 challenges facing the field of psychiatry,

NOTE Confidence: 0.907708724

 $00{:}10{:}35.760 \dashrightarrow 00{:}10{:}37.182$ but also one of our greatest

NOTE Confidence: 0.907708724

 $00{:}10{:}37.182 \dashrightarrow 00{:}10{:}38.130$ current public health challenges.

NOTE Confidence: 0.907708724

 $00:10:38.130 \longrightarrow 00:10:40.186$ And so I think it's a really important

NOTE Confidence: 0.907708724

 $00:10:40.186 \longrightarrow 00:10:42.022$ topic that we need to continue to

00:10:42.022 --> 00:10:46.570 invest research in next slide, please.

NOTE Confidence: 0.907708724

 $00{:}10{:}46.570 \dashrightarrow 00{:}10{:}48.210$ And the reason that it's such a challenge

NOTE Confidence: 0.907708724

 $00:10:48.210 \longrightarrow 00:10:50.249$ for us currently is over the last two years,

NOTE Confidence: 0.907708724

 $00:10:50.250 \longrightarrow 00:10:52.494$ we've seen a pretty precipitous rise

NOTE Confidence: 0.907708724

 $00:10:52.494 \longrightarrow 00:10:55.048$ in deaths by suicide in our country.

NOTE Confidence: 0.907708724

00:10:55.050 --> 00:10:56.290 Our national suicide attempt,

NOTE Confidence: 0.907708724

 $00:10:56.290 \longrightarrow 00:10:58.150$ our national suicide rate over the

NOTE Confidence: 0.907708724

 $00:10:58.205 \longrightarrow 00:11:00.950$ last two decades, has risen by 35%,

NOTE Confidence: 0.907708724

 $00:11:00.950 \longrightarrow 00:11:04.196$ and that's in the context of declines

NOTE Confidence: 0.907708724

 $00:11:04.196 \longrightarrow 00:11:07.452$ that we saw in the 1980s and the 1990s.

NOTE Confidence: 0.907708724

00:11:07.452 --> 00:11:09.062 It's also very concerning because

NOTE Confidence: 0.907708724

 $00:11:09.062 \longrightarrow 00:11:10.850$ over the last two decades,

NOTE Confidence: 0.907708724

 $00:11:10.850 \longrightarrow 00:11:12.578$ other developed countries across the world,

NOTE Confidence: 0.907708724

 $00{:}11{:}12.580 \dashrightarrow 00{:}11{:}14.040$ especially countries in Europe,

NOTE Confidence: 0.907708724

 $00:11:14.040 \longrightarrow 00:11:15.865$ have actually seen a decline

NOTE Confidence: 0.907708724

 $00:11:15.865 \longrightarrow 00:11:17.390$ in their suicide rate.

00:11:17.390 --> 00:11:19.245 While we've continued to see

NOTE Confidence: 0.907708724

 $00:11:19.245 \longrightarrow 00:11:22.250$ a pretty steady increase.

NOTE Confidence: 0.907708724

00:11:22.250 --> 00:11:23.942 Next slide,

NOTE Confidence: 0.907708724

 $00:11:23.942 \longrightarrow 00:11:24.788$ please.

NOTE Confidence: 0.907708724

 $00:11:24.790 \longrightarrow 00:11:26.030$ And when we're thinking about

NOTE Confidence: 0.907708724

00:11:26.030 --> 00:11:26.526 suicide prevention,

NOTE Confidence: 0.907708724

00:11:26.530 --> 00:11:28.470 it's not only important to

NOTE Confidence: 0.907708724

 $00:11:28.470 \longrightarrow 00:11:30.450$ look at deaths by suicide,

NOTE Confidence: 0.907708724

 $00:11:30.450 \longrightarrow 00:11:32.473$ but it's also important to look at

NOTE Confidence: 0.907708724

00:11:32.473 --> 00:11:34.675 trends in all types of suicidal

NOTE Confidence: 0.907708724

 $00:11:34.675 \longrightarrow 00:11:36.785$ behavior across the suicide continuum.

NOTE Confidence: 0.907708724

00:11:36.790 --> 00:11:38.652 So this was data that was just

NOTE Confidence: 0.907708724

 $00{:}11{:}38.652 \dashrightarrow 00{:}11{:}40.289$ released by Samsa for last year.

NOTE Confidence: 0.907708724

 $00:11:40.290 \longrightarrow 00:11:41.232$ For year 2021.

NOTE Confidence: 0.907708724

 $00:11:41.232 \longrightarrow 00:11:44.195$ You can see at the bottom of the pyramid

00:11:44.195 --> 00:11:46.865 here at 12.2 million adults are reported

NOTE Confidence: 0.907708724

00:11:46.865 --> 00:11:49.210 serious thoughts of suicide last year,

NOTE Confidence: 0.907708724

 $00{:}11{:}49.210 \dashrightarrow 00{:}11{:}51.465$ and that corresponds to almost

NOTE Confidence: 0.907708724

00:11:51.465 --> 00:11:53.810 5\% of the total US population,

NOTE Confidence: 0.907708724

 $00:11:53.810 \longrightarrow 00:11:55.781$ one in 20.

NOTE Confidence: 0.907708724

00:11:55.781 --> 00:11:59.060 Individuals 1.2% of the total US

NOTE Confidence: 0.907708724

 $00:11:59.060 \longrightarrow 00:12:01.156$ population reported making suicide

NOTE Confidence: 0.907708724

 $00:12:01.156 \longrightarrow 00:12:04.313$ plans in the last year .5% about 1.2

NOTE Confidence: 0.907708724

 $00{:}12{:}04.313 \dashrightarrow 00{:}12{:}05.877$ million reported suicide attempts

NOTE Confidence: 0.907708724

 $00:12:05.877 \longrightarrow 00:12:09.118$ and a much smaller fraction of those

NOTE Confidence: 0.907708724

 $00{:}12{:}09.118 \dashrightarrow 00{:}12{:}11.424$ individuals died by suicide, about

NOTE Confidence: 0.907708724

 $00:12:11.424 \longrightarrow 00:12:15.278$ 46,000 so still way too high of a number.

NOTE Confidence: 0.907708724

 $00:12:15.280 \longrightarrow 00:12:16.060$ Next slide, please.

NOTE Confidence: 0.904560355882353

00:12:18.840 --> 00:12:20.868 And so while the majority of

NOTE Confidence: 0.904560355882353

 $00:12:20.868 \longrightarrow 00:12:22.220$ individuals who attempt suicide

NOTE Confidence: 0.904560355882353

00:12:22.285 --> 00:12:23.979 don't go on to die by suicide,

 $00{:}12{:}23.980 \dashrightarrow 00{:}12{:}25.775$ we know that suicide attempt

NOTE Confidence: 0.904560355882353

 $00:12:25.775 \longrightarrow 00:12:27.570$ continues to remain the strongest

NOTE Confidence: 0.904560355882353

00:12:27.637 --> 00:12:29.617 predictor of future suicide and is

NOTE Confidence: 0.904560355882353

00:12:29.617 --> 00:12:31.699 an important group for us to study.

NOTE Confidence: 0.904560355882353

 $00:12:31.700 \longrightarrow 00:12:33.480$ Longitudinal studies indicate that

NOTE Confidence: 0.904560355882353

 $00:12:33.480 \longrightarrow 00:12:36.328$ anywhere from 7 to 13% of individuals

NOTE Confidence: 0.904560355882353

 $00:12:36.328 \longrightarrow 00:12:38.820$ who attempt suicide will go on to

NOTE Confidence: 0.904560355882353

00:12:38.896 --> 00:12:41.158 die by suicide in their lifetime,

NOTE Confidence: 0.904560355882353

 $00{:}12{:}41.160 \dashrightarrow 00{:}12{:}43.350$ and the majority of these deaths

NOTE Confidence: 0.904560355882353

 $00:12:43.350 \longrightarrow 00:12:44.810$ estimated anywhere between 70

NOTE Confidence: 0.904560355882353

 $00{:}12{:}44.876 \dashrightarrow 00{:}12{:}46.856$ to 80% tend to occur in the 12

NOTE Confidence: 0.904560355882353

 $00{:}12{:}46.856 \dashrightarrow 00{:}12{:}48.470$ months after a suicide attempt.

NOTE Confidence: 0.904560355882353

 $00{:}12{:}48.470 \dashrightarrow 00{:}12{:}50.806$ And so we know this year after a

NOTE Confidence: 0.904560355882353

 $00:12:50.806 \longrightarrow 00:12:52.552$ suicide attempt is a really critical

NOTE Confidence: 0.904560355882353

 $00:12:52.552 \longrightarrow 00:12:54.727$ period of time for us to intervene

 $00:12:54.727 \longrightarrow 00:12:56.603$ and prevention strategies really

NOTE Confidence: 0.904560355882353

00:12:56.603 --> 00:12:58.948 rely on individuals receiving some

NOTE Confidence: 0.904560355882353

 $00:12:58.950 \longrightarrow 00:13:01.105$ sort of mental health intervention

NOTE Confidence: 0.904560355882353

 $00:13:01.105 \longrightarrow 00:13:02.829$ after a suicide attempt.

NOTE Confidence: 0.904560355882353

 $00:13:02.830 \longrightarrow 00:13:05.588$ Yet we know that a fairly large

NOTE Confidence: 0.904560355882353

00:13:05.588 --> 00:13:07.997 amount of individuals don't actually

NOTE Confidence: 0.904560355882353

 $00:13:07.997 \longrightarrow 00:13:10.614$ receive services in the year after

NOTE Confidence: 0.904560355882353

 $00:13:10.614 \longrightarrow 00:13:12.810$ a suicide as a suicide attempt,

NOTE Confidence: 0.904560355882353

 $00:13:12.810 \longrightarrow 00:13:16.026$ and we don't know this percentage very well.

NOTE Confidence: 0.904560355882353

 $00:13:16.030 \longrightarrow 00:13:17.450$ We don't actually have a

NOTE Confidence: 0.904560355882353

 $00{:}13{:}17.450 \dashrightarrow 00{:}13{:}18.586$ great understanding of what.

NOTE Confidence: 0.904560355882353

00:13:18.590 --> 00:13:20.954 Percent of individuals actually

NOTE Confidence: 0.904560355882353

 $00:13:20.954 \longrightarrow 00:13:24.500$ receive services in proximity to their

NOTE Confidence: 0.904560355882353

00:13:24.592 --> 00:13:26.860 suicide attempt because most of the

NOTE Confidence: 0.904560355882353

 $00:13:26.860 \longrightarrow 00:13:28.705$ studies that have been done on this

NOTE Confidence: 0.904560355882353

00:13:28.705 --> 00:13:30.707 topic have been done either in fully

 $00:13:30.707 \longrightarrow 00:13:32.454$ insured samples or in individuals who

NOTE Confidence: 0.904560355882353

 $00{:}13{:}32.454 \dashrightarrow 00{:}13{:}34.512$ receive care after a suicide after a

NOTE Confidence: 0.904560355882353

 $00:13:34.512 \longrightarrow 00:13:36.372$ suicide attempt because they present

NOTE Confidence: 0.904560355882353

00:13:36.372 --> 00:13:38.234 to emergency departments or they

NOTE Confidence: 0.904560355882353

 $00:13:38.234 \longrightarrow 00:13:40.118$ get admitted to an inpatient unit.

NOTE Confidence: 0.904560355882353

 $00:13:40.120 \longrightarrow 00:13:41.944$ Several studies that have been done

NOTE Confidence: 0.904560355882353

00:13:41.944 --> 00:13:45.440 in a large HMO population of a fully

NOTE Confidence: 0.904560355882353

 $00:13:45.440 \longrightarrow 00:13:48.630$ insured sample show that about 40%.

NOTE Confidence: 0.904560355882353

 $00:13:48.630 \longrightarrow 00:13:50.555$ Suicide Attempters had a healthcare

NOTE Confidence: 0.904560355882353

 $00{:}13{:}50.555 \dashrightarrow 00{:}13{:}52.480$ visit within the week before

NOTE Confidence: 0.904560355882353

 $00:13:52.546 \longrightarrow 00:13:54.978$ their attempt and 95% had a visit

NOTE Confidence: 0.904560355882353

 $00:13:54.978 \longrightarrow 00:13:56.386$ within the preceding year.

NOTE Confidence: 0.904560355882353 00:13:56.390 --> 00:13:56.658 Yeah,

NOTE Confidence: 0.904560355882353

00:13:56.658 --> 00:13:57.462 like I said,

NOTE Confidence: 0.904560355882353

 $00:13:57.462 \longrightarrow 00:13:59.476$ we know that a large percentage of

 $00:13:59.476 \longrightarrow 00:14:00.852$ individuals actually don't receive

NOTE Confidence: 0.904560355882353

00:14:00.852 --> 00:14:02.944 care in proximity to their attempt

NOTE Confidence: 0.904560355882353

 $00:14:02.944 \longrightarrow 00:14:04.846$ and and looking at veterans and

NOTE Confidence: 0.904560355882353

 $00:14:04.846 \longrightarrow 00:14:06.104$ the Veterans Health Administration

NOTE Confidence: 0.904560355882353

 $00:14:06.104 \longrightarrow 00:14:07.928$ is a good example of this.

NOTE Confidence: 0.904560355882353

 $00:14:07.930 \longrightarrow 00:14:11.461$ So in 2018 it was estimated that 63%

NOTE Confidence: 0.904560355882353

 $00:14:11.461 \longrightarrow 00:14:13.778$ of veterans who died by suicide didn't

NOTE Confidence: 0.904560355882353

 $00:14:13.778 \longrightarrow 00:14:16.130$ have an encounter within the VA in

NOTE Confidence: 0.904560355882353

 $00{:}14{:}16.130 \dashrightarrow 00{:}14{:}18.619$ the 12 months prior to their death.

NOTE Confidence: 0.904560355882353 00:14:18.620 --> 00:14:19.640 And so.

NOTE Confidence: 0.904560355882353

00:14:19.640 --> 00:14:21.170 An alternative way,

NOTE Confidence: 0.904560355882353

 $00:14:21.170 \longrightarrow 00:14:23.025$ and perhaps a more accurate

NOTE Confidence: 0.904560355882353

 $00:14:23.025 \longrightarrow 00:14:24.509$ approach to really understanding

NOTE Confidence: 0.904560355882353

00:14:24.509 --> 00:14:26.635 how often individuals who attempt

NOTE Confidence: 0.904560355882353

00:14:26.635 --> 00:14:28.327 suicide are receiving services

NOTE Confidence: 0.904560355882353

00:14:28.327 --> 00:14:30.109 in proximity to their death,

 $00:14:30.110 \longrightarrow 00:14:32.102$ maybe to use population based survey

NOTE Confidence: 0.904560355882353

 $00{:}14{:}32.102 \dashrightarrow 00{:}14{:}34.538$ data of individuals who are insured and

NOTE Confidence: 0.904560355882353

 $00:14:34.538 \longrightarrow 00:14:36.283$ individuals who aren't individuals who

NOTE Confidence: 0.904560355882353

00:14:36.283 --> 00:14:38.590 got care after their suicide attempt,

NOTE Confidence: 0.904560355882353

00:14:38.590 --> 00:14:40.844 and individuals who have gotten no care,

NOTE Confidence: 0.904560355882353

 $00:14:40.850 \longrightarrow 00:14:43.069$ and so that was the approach that

NOTE Confidence: 0.904560355882353

 $00:14:43.069 \longrightarrow 00:14:45.337$ we wanted to take in our study.

NOTE Confidence: 0.904560355882353

 $00:14:45.340 \longrightarrow 00:14:46.460$ So, next slide, please.

NOTE Confidence: 0.867036149565217

 $00:14:48.700 \longrightarrow 00:14:50.968$ So this was the title of our paper that

NOTE Confidence: 0.867036149565217

 $00:14:50.968 \longrightarrow 00:14:53.333$ was published this spring and we were

NOTE Confidence: 0.867036149565217

 $00:14:53.333 \longrightarrow 00:14:55.579$ interested in looking at 4 main issues.

NOTE Confidence: 0.867036149565217

 $00:14:55.580 \longrightarrow 00:14:57.884$ The first is what are recent trends in

NOTE Confidence: 0.867036149565217

 $00:14:57.884 \longrightarrow 00:15:00.140$ past year suicide attempts from years

NOTE Confidence: 0.867036149565217

 $00:15:00.140 \longrightarrow 00:15:03.756$ 2008 to 2019 among adults in the US.

NOTE Confidence: 0.867036149565217

00:15:03.760 --> 00:15:06.189 We also wanted to know what risk

 $00:15:06.189 \longrightarrow 00:15:08.129$ factors were associated with increased

NOTE Confidence: 0.867036149565217

 $00:15:08.129 \longrightarrow 00:15:10.637$ suicide attempts over this time period.

NOTE Confidence: 0.867036149565217

 $00:15:10.640 \longrightarrow 00:15:13.124$ Third, we wanted to understand that

NOTE Confidence: 0.867036149565217

00:15:13.124 --> 00:15:15.320 amongst individuals who attempted suicide,

NOTE Confidence: 0.867036149565217

 $00:15:15.320 \longrightarrow 00:15:16.830$ what were their self reported

NOTE Confidence: 0.867036149565217

00:15:16.830 --> 00:15:18.340 trends in using mental health?

NOTE Confidence: 0.867036149565217

00:15:18.340 --> 00:15:20.482 Services during the year of their

NOTE Confidence: 0.867036149565217

 $00:15:20.482 \longrightarrow 00:15:22.487$ attempt and finally of individuals

NOTE Confidence: 0.867036149565217

 $00:15:22.487 \longrightarrow 00:15:24.527$ who didn't receive services.

NOTE Confidence: 0.867036149565217

00:15:24.530 --> 00:15:27.802 We wanted to know what were their self

NOTE Confidence: 0.867036149565217

 $00:15:27.802 \longrightarrow 00:15:30.378$ reported barriers to receiving that care.

NOTE Confidence: 0.867036149565217 00:15:30.380 --> 00:15:32.260 Next please.

NOTE Confidence: 0.867036149565217

 $00:15:32.260 \longrightarrow 00:15:33.956$ So just a quick note on our method.

NOTE Confidence: 0.867036149565217

 $00{:}15{:}33.960 \dashrightarrow 00{:}15{:}36.466$ So we used a population based nationally

NOTE Confidence: 0.867036149565217

 $00:15:36.466 \longrightarrow 00:15:38.164$ representative survey data from the

NOTE Confidence: 0.867036149565217

00:15:38.164 --> 00:15:40.159 National Survey on Drug Use and Health,

00:15:40.160 --> 00:15:43.240 which is a population based survey that's

NOTE Confidence: 0.867036149565217

 $00:15:43.240 \longrightarrow 00:15:46.068$ administered annually by Samsa and it

NOTE Confidence: 0.867036149565217

 $00:15:46.068 \longrightarrow 00:15:47.988$ administers computer question naires to

NOTE Confidence: 0.867036149565217

00:15:47.988 --> 00:15:50.830 individuals at their household addresses,

NOTE Confidence: 0.867036149565217

 $00:15:50.830 \longrightarrow 00:15:53.610$ or delivers in person questionnaires

NOTE Confidence: 0.867036149565217

 $00:15:53.610 \longrightarrow 00:15:55.834$ by a trained interviewer,

NOTE Confidence: 0.867036149565217

 $00:15:55.840 \longrightarrow 00:15:58.006$ and so our sample included adults

NOTE Confidence: 0.867036149565217

 $00:15:58.006 \longrightarrow 00:16:01.372$ over the age of 18 from 2008 to 2019.

NOTE Confidence: 0.867036149565217

 $00{:}16{:}01.372 \dashrightarrow 00{:}16{:}04.036$ And the Nysda assesses suicide attempts

NOTE Confidence: 0.867036149565217

 $00{:}16{:}04.036 \dashrightarrow 00{:}16{:}06.790$ with a relatively simple question.

NOTE Confidence: 0.867036149565217

 $00:16:06.790 \longrightarrow 00:16:08.505$ It asks in the last 12 months,

NOTE Confidence: 0.867036149565217

00:16:08.510 --> 00:16:10.406 did you try to kill yourself?

NOTE Confidence: 0.867036149565217

 $00{:}16{:}10.410 \dashrightarrow 00{:}16{:}12.300$ So in this way it really tries to get

NOTE Confidence: 0.867036149565217

 $00:16:12.300 \longrightarrow 00:16:14.070$ at suicide attempts with fatal intent

NOTE Confidence: 0.867036149565217

 $00:16:14.070 \longrightarrow 00:16:16.527$ and it tries to screen out other types

00:16:16.527 --> 00:16:18.327 of suicidal behavior such as non

NOTE Confidence: 0.867036149565217

 $00:16:18.327 \longrightarrow 00:16:20.475$ suicidal self injury and this resulted

NOTE Confidence: 0.867036149565217

00:16:20.475 --> 00:16:23.157 in us having a pretty large sample

NOTE Confidence: 0.867036149565217

 $00:16:23.157 \longrightarrow 00:16:25.803$ of close to half a million adults.

NOTE Confidence: 0.867036149565217

 $00:16:25.810 \longrightarrow 00:16:28.129$ Next slide please.

NOTE Confidence: 0.867036149565217

00:16:28.130 --> 00:16:30.286 And so for our first question are

NOTE Confidence: 0.867036149565217

 $00:16:30.286 \longrightarrow 00:16:32.750$ what are recent trends in past year

NOTE Confidence: 0.867036149565217

 $00:16:32.750 \longrightarrow 00:16:34.793$ suicide attempts from 2008 to 2019?

NOTE Confidence: 0.867036149565217

00:16:34.793 --> 00:16:37.473 The bottom line here is we found that

NOTE Confidence: 0.867036149565217

 $00:16:37.473 \longrightarrow 00:16:39.603$ the suicide attempt rate increased

NOTE Confidence: 0.867036149565217

 $00{:}16{:}39.603 \dashrightarrow 00{:}16{:}42.970$ from 481 per 100,000 individuals to

NOTE Confidence: 0.867036149565217

 $00:16:42.970 \longrightarrow 00:16:45.255$ 564 per 100,000 individuals which

NOTE Confidence: 0.867036149565217

 $00{:}16{:}45.255 \dashrightarrow 00{:}16{:}47.772$ corresponded to about a 23% increase

NOTE Confidence: 0.867036149565217

 $00:16:47.772 \longrightarrow 00:16:50.159$ when we adjusted for other changes in

NOTE Confidence: 0.867036149565217

 $00:16:50.159 \longrightarrow 00:16:52.650$ the population over this time period.

NOTE Confidence: 0.867036149565217

 $00:16:52.650 \longrightarrow 00:16:54.974$ And you can see the pretty precipitous

 $00:16:54.974 \longrightarrow 00:16:57.970$ rise in the graph here from 2008 2009.

NOTE Confidence: 0.867036149565217

 $00:16:57.970 \longrightarrow 00:17:01.560$ All the way to 2018-2019.

NOTE Confidence: 0.867036149565217

 $00:17:01.560 \longrightarrow 00:17:03.879$ Next slide, please.

NOTE Confidence: 0.867036149565217 $00:17:03.880 \longrightarrow 00:17:04.166$ Secondly, NOTE Confidence: 0.867036149565217 $00:17:04.166 \longrightarrow 00:17:05.024$ as I said, NOTE Confidence: 0.867036149565217

 $00:17:05.024 \longrightarrow 00:17:06.740$ we were interested in what risk

NOTE Confidence: 0.867036149565217

00:17:06.801 --> 00:17:08.616 factors were associated with this

NOTE Confidence: 0.867036149565217

 $00{:}17{:}08.616 \dashrightarrow 00{:}17{:}10.431$ increase in suicide attempts and

NOTE Confidence: 0.867036149565217

 $00{:}17{:}10.493 \dashrightarrow 00{:}17{:}12.448$ we found a significant increases

NOTE Confidence: 0.867036149565217

00:17:12.448 --> 00:17:14.012 in several different subgroups,

NOTE Confidence: 0.867036149565217

00:17:14.020 --> 00:17:16.100 but especially among the unemployed,

NOTE Confidence: 0.867036149565217

00:17:16.100 --> 00:17:16.776 the unemployed,

NOTE Confidence: 0.867036149565217

 $00{:}17{:}16.776 \dashrightarrow 00{:}17{:}18.804$ their suicide attempt rate more than

NOTE Confidence: 0.867036149565217

 $00:17:18.804 \longrightarrow 00:17:20.777$ doubled over the course of the study.

NOTE Confidence: 0.867036149565217

 $00:17:20.780 \longrightarrow 00:17:23.475$ We also saw a pretty large increases

 $00:17:23.475 \longrightarrow 00:17:26.331$ among young adults aged 18 to 25

NOTE Confidence: 0.867036149565217

 $00{:}17{:}26.331 \dashrightarrow 00{:}17{:}27.955$ individuals with substance use

NOTE Confidence: 0.867036149565217

 $00:17:27.955 \longrightarrow 00:17:29.849$ disorders and individuals who

NOTE Confidence: 0.867036149565217

00:17:29.849 --> 00:17:31.857 were not currently married,

NOTE Confidence: 0.867036149565217

 $00:17:31.860 \longrightarrow 00:17:33.849$ and after we tried to control for all these.

NOTE Confidence: 0.867036149565217

 $00:17:33.850 \longrightarrow 00:17:35.485$ Factors and put them all

NOTE Confidence: 0.867036149565217

 $00:17:35.485 \longrightarrow 00:17:36.793$ into a multivariate model.

NOTE Confidence: 0.867036149565217

 $00:17:36.800 \longrightarrow 00:17:39.400$ We found that the time trend of increasing

NOTE Confidence: 0.867036149565217

 $00:17:39.400 \longrightarrow 00:17:41.142$ suicide attempts over the course of

NOTE Confidence: 0.867036149565217

00:17:41.142 --> 00:17:42.839 our study still remains significant,

NOTE Confidence: 0.867036149565217

 $00{:}17{:}42.839 \dashrightarrow 00{:}17{:}45.197$ which means that we weren't able

NOTE Confidence: 0.867036149565217

 $00:17:45.197 \longrightarrow 00:17:47.594$ to identify all of the factors

NOTE Confidence: 0.867036149565217

 $00:17:47.594 \longrightarrow 00:17:49.340$ that were responsible for this

NOTE Confidence: 0.867036149565217

 $00:17:49.340 \longrightarrow 00:17:50.500$ rise in suicide attempt,

NOTE Confidence: 0.867036149565217

 $00:17:50.500 \longrightarrow 00:17:52.375$ and there's likely other factors

NOTE Confidence: 0.867036149565217

 $00:17:52.375 \longrightarrow 00:17:54.704$ that we didn't have access to

 $00:17:54.704 \longrightarrow 00:17:56.232$ that were likely contributing

NOTE Confidence: 0.867036149565217

 $00:17:56.232 \longrightarrow 00:17:58.142$ to this increase in suicide

NOTE Confidence: 0.902304600952381

00:17:58.207 --> 00:18:01.039 attempts. Next slide, please.

NOTE Confidence: 0.902304600952381

00:18:01.040 --> 00:18:02.410 Now, turning to mental health

NOTE Confidence: 0.902304600952381

 $00:18:02.410 \longrightarrow 00:18:04.100$ service use in the last year.

NOTE Confidence: 0.902304600952381

 $00:18:04.100 \longrightarrow 00:18:06.347$ We wanted to know what were the

NOTE Confidence: 0.902304600952381

 $00:18:06.347 \longrightarrow 00:18:07.978$ trends among individuals who attempted

NOTE Confidence: 0.902304600952381

 $00{:}18{:}07.978 \dashrightarrow 00{:}18{:}10.113$ suicide in their use of past year,

NOTE Confidence: 0.902304600952381

 $00:18:10.120 \longrightarrow 00:18:11.884$ mental health services and what we found

NOTE Confidence: 0.902304600952381

 $00:18:11.884 \longrightarrow 00:18:13.619$ was that there was no significant change

NOTE Confidence: 0.902304600952381

 $00:18:13.619 \longrightarrow 00:18:15.530$ in any of the services we looked at.

NOTE Confidence: 0.902304600952381

 $00:18:15.530 \longrightarrow 00:18:17.785$ We looked at outpatient in patient

NOTE Confidence: 0.902304600952381

 $00{:}18{:}17.785 \dashrightarrow 00{:}18{:}19.589$ and psychotropic medication use

NOTE Confidence: 0.902304600952381

 $00:18:19.589 \longrightarrow 00:18:22.133$ from 2008 to 2019 and if you can

NOTE Confidence: 0.902304600952381

00:18:22.133 --> 00:18:24.639 see the the dark blue line here,

 $00:18:24.640 \longrightarrow 00:18:26.160$ this was prescription medication use.

NOTE Confidence: 0.902304600952381

 $00:18:26.160 \longrightarrow 00:18:28.136$ So this was the most common type of

NOTE Confidence: 0.902304600952381

 $00:18:28.136 \longrightarrow 00:18:29.851$ mental health service received by

NOTE Confidence: 0.902304600952381

 $00:18:29.851 \longrightarrow 00:18:31.407$ individuals who attempted suicide.

NOTE Confidence: 0.902304600952381

 $00:18:31.410 \longrightarrow 00:18:34.138$ Anywhere from 40 to 50% of individuals

NOTE Confidence: 0.902304600952381

00:18:34.138 --> 00:18:36.292 who attempted suicide in our study

NOTE Confidence: 0.902304600952381

00:18:36.292 --> 00:18:38.023 reported receiving some sort of

NOTE Confidence: 0.902304600952381

 $00:18:38.023 \longrightarrow 00:18:39.925$ psychotropic medication in the last year.

NOTE Confidence: 0.902304600952381

00:18:39.930 --> 00:18:41.870 Outpatient services were then the

NOTE Confidence: 0.902304600952381

00:18:41.870 --> 00:18:44.206 next most common and right around

NOTE Confidence: 0.902304600952381

 $00:18:44.206 \longrightarrow 00:18:46.159$ 40% of individuals reported

NOTE Confidence: 0.902304600952381

00:18:46.159 --> 00:18:47.788 receiving outpatient services.

NOTE Confidence: 0.902304600952381

 $00:18:47.790 \longrightarrow 00:18:49.515$ A smaller amount received inpatient

NOTE Confidence: 0.902304600952381

 $00:18:49.515 \longrightarrow 00:18:51.680$ services and a much smaller amount.

NOTE Confidence: 0.902304600952381

 $00:18:51.680 \longrightarrow 00:18:54.084$ Received substance use services.

NOTE Confidence: 0.902304600952381

00:18:54.084 --> 00:18:57.190 Next slide, please.

 $00:18:57.190 \longrightarrow 00:18:59.215$ And so finally we wanted to know what were

NOTE Confidence: 0.902304600952381

 $00:18:59.215 \longrightarrow 00:19:01.056$ the percent of individuals who reported

NOTE Confidence: 0.902304600952381

 $00:19:01.056 \dashrightarrow 00:19:03.310$ needing services but did not get services.

NOTE Confidence: 0.902304600952381

 $00:19:03.310 \longrightarrow 00:19:05.983$ And so in this most recent year in 2019,

NOTE Confidence: 0.902304600952381

 $00:19:05.990 \longrightarrow 00:19:08.825$ we found that 45% almost half of

NOTE Confidence: 0.902304600952381

 $00:19:08.825 \longrightarrow 00:19:11.104$ individuals who attempted suicide reported

NOTE Confidence: 0.902304600952381

 $00:19:11.104 \longrightarrow 00:19:14.086$ needing services but not receiving them.

NOTE Confidence: 0.902304600952381

 $00:19:14.090 \longrightarrow 00:19:15.650$ And when we looked at the

NOTE Confidence: 0.902304600952381

00:19:15.650 --> 00:19:16.690 most common reported reasons

NOTE Confidence: 0.902304600952381

00:19:16.743 --> 00:19:18.188 that they didn't receive care,

NOTE Confidence: 0.902304600952381

 $00:19:18.190 \longrightarrow 00:19:19.675$ about half of individuals said

NOTE Confidence: 0.902304600952381

 $00:19:19.675 \longrightarrow 00:19:21.160$ they didn't receive care because

NOTE Confidence: 0.902304600952381

00:19:21.213 --> 00:19:22.628 they couldn't afford the cost,

NOTE Confidence: 0.902304600952381

 $00:19:22.630 \longrightarrow 00:19:24.688$ about 1/4 of individuals said they simply

NOTE Confidence: 0.902304600952381

00:19:24.688 --> 00:19:26.967 didn't know where to go for treatment and 16.

 $00:19:26.970 \longrightarrow 00:19:28.325$ Percent were either concerned about

NOTE Confidence: 0.902304600952381

 $00:19:28.325 \longrightarrow 00:19:30.144$ the opinions of others or were

NOTE Confidence: 0.902304600952381

00:19:30.144 --> 00:19:31.380 concerned about confidentiality,

NOTE Confidence: 0.902304600952381

 $00:19:31.380 \longrightarrow 00:19:33.966$ which both are related to mental

NOTE Confidence: 0.902304600952381

 $00:19:33.966 \longrightarrow 00:19:35.690$ health stigma related concerns

NOTE Confidence: 0.902304600952381

 $00:19:35.766 \longrightarrow 00:19:37.920$ about seeking care for.

NOTE Confidence: 0.902304600952381

 $00:19:37.920 \longrightarrow 00:19:39.760$ For suicidality.

NOTE Confidence: 0.90230460095238100:19:39.760 --> 00:19:40.486 Next slide.

00:19:40.486 --> 00:19:44.579 So when we look at a summary of our findings,

NOTE Confidence: 0.902304600952381

NOTE Confidence: 0.902304600952381

 $00:19:44.580 \longrightarrow 00:19:46.176$ the first point is there's been a

NOTE Confidence: 0.902304600952381

 $00:19:46.176 \longrightarrow 00:19:47.580$ substantial increase in suicide attempts,

NOTE Confidence: 0.902304600952381

 $00:19:47.580 \longrightarrow 00:19:49.602$ about a 23% rise in suicide

NOTE Confidence: 0.902304600952381

 $00:19:49.602 \longrightarrow 00:19:52.508$ attempts from 08 to 2019 without any

NOTE Confidence: 0.902304600952381

 $00:19:52.508 \longrightarrow 00:19:54.973$ corresponding increase in service use.

NOTE Confidence: 0.902304600952381

 $00:19:54.980 \longrightarrow 00:19:57.017$ We found that while mental illness was

NOTE Confidence: 0.902304600952381

00:19:57.017 --> 00:19:58.759 highly associated with suicide attempts,

 $00:19:58.760 \longrightarrow 00:20:00.464$ the greatest increase has actually occurred

NOTE Confidence: 0.902304600952381

 $00:20:00.464 \longrightarrow 00:20:01.940$ among individuals without mental illness.

NOTE Confidence: 0.902304600952381

00:20:01.940 --> 00:20:03.770 It's occurred among individuals who

NOTE Confidence: 0.902304600952381

 $00:20:03.770 \longrightarrow 00:20:05.600$ are unemployed and young adults.

NOTE Confidence: 0.902304600952381

 $00:20:05.600 \longrightarrow 00:20:07.600$ Individuals with substance use disorders,

NOTE Confidence: 0.902304600952381

 $00:20:07.600 \longrightarrow 00:20:10.636$ or individuals who are never married.

NOTE Confidence: 0.902304600952381

 $00:20:10.640 \longrightarrow 00:20:12.910$ We also found that only 40% of

NOTE Confidence: 0.902304600952381

 $00:20:12.910 \longrightarrow 00:20:14.310$ individuals who attempted suicide.

NOTE Confidence: 0.902304600952381

00:20:14.310 --> 00:20:16.044 At any sort of outpatient mental

NOTE Confidence: 0.902304600952381

 $00:20:16.044 \longrightarrow 00:20:18.232$ health visit in the past year and

NOTE Confidence: 0.902304600952381

00:20:18.232 --> 00:20:19.847 nearly half of individuals reported

NOTE Confidence: 0.902304600952381

 $00:20:19.847 \longrightarrow 00:20:21.610$ an unmet need for treatment,

NOTE Confidence: 0.902304600952381

 $00{:}20{:}21.610 \longrightarrow 00{:}20{:}24.938$ which was largely due to cost barriers or

NOTE Confidence: 0.902304600952381

 $00:20:24.938 \longrightarrow 00:20:27.968$ not knowing where to go to obtain care.

NOTE Confidence: 0.902304600952381

 $00:20:27.970 \longrightarrow 00:20:30.286$ So turning now to the implications,

 $00:20:30.290 \longrightarrow 00:20:33.710$ the first implication of our study

NOTE Confidence: 0.902304600952381

00:20:33.710 --> 00:20:34.350 next bullet.

NOTE Confidence: 0.874666677619048

 $00:20:36.660 \longrightarrow 00:20:39.284$ Was that service use in our study was

NOTE Confidence: 0.874666677619048

 $00:20:39.284 \longrightarrow 00:20:41.293$ significantly less than in other studies

NOTE Confidence: 0.874666677619048

 $00:20:41.293 \longrightarrow 00:20:43.760$ that have looked at fully insured samples.

NOTE Confidence: 0.874666677619048

00:20:43.760 --> 00:20:45.454 So like I said in our study,

NOTE Confidence: 0.874666677619048

00:20:45.460 --> 00:20:48.876 only about 40% reported an outpatient visit,

NOTE Confidence: 0.874666677619048

 $00:20:48.880 \longrightarrow 00:20:51.982$ where in the previously studied insured

NOTE Confidence: 0.874666677619048

 $00{:}20{:}51.982 \dashrightarrow 00{:}20{:}54.602$ samples upwards of 95% reported an

NOTE Confidence: 0.874666677619048

00:20:54.602 --> 00:20:56.018 outpatient mental health visit,

NOTE Confidence: 0.874666677619048

00:20:56.020 --> 00:20:58.547 and so when we're thinking about research,

NOTE Confidence: 0.874666677619048

 $00:20:58.550 \longrightarrow 00:21:01.245$ it's important to to think and to

NOTE Confidence: 0.874666677619048

 $00{:}21{:}01.245 \dashrightarrow 00{:}21{:}03.142$ remember that that these insured

NOTE Confidence: 0.874666677619048

 $00:21:03.142 \longrightarrow 00:21:04.638$ samples are fully treatment,

NOTE Confidence: 0.874666677619048

 $00:21:04.640 \longrightarrow 00:21:06.716$ seeking samples of individuals who receive.

NOTE Confidence: 0.874666677619048

 $00:21:06.720 \longrightarrow 00:21:08.835$ Care and emergency departments after

00:21:08.835 --> 00:21:10.950 their attempt may actually overestimate

NOTE Confidence: 0.874666677619048

 $00:21:11.009 \longrightarrow 00:21:12.911$ the percent of individuals who are

NOTE Confidence: 0.874666677619048

 $00:21:12.911 \longrightarrow 00:21:15.129$ receiving care after a suicide attempt.

NOTE Confidence: 0.874666677619048

00:21:15.130 --> 00:21:16.202 But perhaps more importantly,

NOTE Confidence: 0.874666677619048

00:21:16.202 --> 00:21:17.274 I think it's concerning.

NOTE Confidence: 0.874666677619048

 $00:21:17.280 \longrightarrow 00:21:19.560$ Given that most of our current

NOTE Confidence: 0.874666677619048

00:21:19.560 --> 00:21:20.700 suicide prevention strategies

NOTE Confidence: 0.874666677619048

00:21:20.700 --> 00:21:22.218 really rely on healthcare,

NOTE Confidence: 0.874666677619048

 $00:21:22.220 \longrightarrow 00:21:24.355$ contact, our most common prevention

NOTE Confidence: 0.874666677619048

 $00:21:24.355 \longrightarrow 00:21:25.636$ strategies right now.

NOTE Confidence: 0.874666677619048

 $00:21:25.640 \longrightarrow 00:21:27.844$ Include things like a

NOTE Confidence: 0.874666677619048

00:21:27.844 --> 00:21:29.497 routine suicide screening,

NOTE Confidence: 0.874666677619048

 $00{:}21{:}29.500 \dashrightarrow 00{:}21{:}31.672$ making sure individuals experiencing

NOTE Confidence: 0.874666677619048

00:21:31.672 --> 00:21:34.387 suicidality receive evidence based treatment,

NOTE Confidence: 0.874666677619048

 $00:21:34.390 \longrightarrow 00:21:35.845$ and making sure individuals receive

 $00:21:35.845 \longrightarrow 00:21:37.300$ safety planning before they leave.

NOTE Confidence: 0.874666677619048

 $00{:}21{:}37.300 \to 00{:}21{:}39.385$ Training patient units or our

NOTE Confidence: 0.874666677619048

00:21:39.385 --> 00:21:40.219 emergency departments,

NOTE Confidence: 0.874666677619048

 $00:21:40.220 \longrightarrow 00:21:42.540$ but it's impossible to really do any of

NOTE Confidence: 0.874666677619048

 $00:21:42.540 \longrightarrow 00:21:44.324$ these evidence based interventions unless

NOTE Confidence: 0.874666677619048

00:21:44.324 --> 00:21:46.616 people are walking through the doors,

NOTE Confidence: 0.874666677619048

 $00:21:46.620 \longrightarrow 00:21:48.085$ and unless we're seeing them

NOTE Confidence: 0.874666677619048

 $00:21:48.085 \longrightarrow 00:21:49.257$ in our healthcare settings.

NOTE Confidence: 0.874666677619048

00:21:49.260 --> 00:21:51.150 And So what I'd like to talk

NOTE Confidence: 0.874666677619048

 $00:21:51.150 \longrightarrow 00:21:52.480$ about next is really,

NOTE Confidence: 0.874666677619048 00:21:52.480 --> 00:21:53.182 I think, NOTE Confidence: 0.874666677619048

00:21:53.182 --> 00:21:55.288 a potential need to diversify our

NOTE Confidence: 0.874666677619048

 $00:21:55.288 \longrightarrow 00:21:56.397$ suicide prevention interventions

NOTE Confidence: 0.874666677619048

00:21:56.397 --> 00:21:58.812 to not only focus on high risk

NOTE Confidence: 0.874666677619048

00:21:58.812 --> 00:22:00.658 individuals who frequently have contact

NOTE Confidence: 0.874666677619048

 $00{:}22{:}00.658 \dashrightarrow 00{:}22{:}02.842$ with us in the health care system,

00:22:02.850 --> 00:22:04.110 but to also look at more public,

NOTE Confidence: 0.874666677619048

 $00:22:04.110 \longrightarrow 00:22:05.934$ health oriented interventions that

NOTE Confidence: 0.874666677619048

 $00:22:05.934 \longrightarrow 00:22:08.670$ begin to address the social conditions.

NOTE Confidence: 0.874666677619048

00:22:08.670 --> 00:22:10.692 Which people live?

NOTE Confidence: 0.874666677619048 00:22:10.692 --> 00:22:12.040 Next point,

NOTE Confidence: 0.874666677619048

 $00{:}22{:}12.040 \dashrightarrow 00{:}22{:}14.002$ our findings also just demonstrate a

NOTE Confidence: 0.874666677619048

00:22:14.002 --> 00:22:15.996 very large unmet need for treatment

NOTE Confidence: 0.874666677619048

 $00{:}22{:}15.996 \dashrightarrow 00{:}22{:}18.201$ during the most high risk period for

NOTE Confidence: 0.874666677619048

 $00{:}22{:}18.201 \dashrightarrow 00{:}22{:}20.748$ fatal reattempts, and so we know,

NOTE Confidence: 0.874666677619048

00:22:20.748 --> 00:22:22.296 based on prior literature,

NOTE Confidence: 0.874666677619048

 $00:22:22.300 \longrightarrow 00:22:24.232$ that the most high risk time for

NOTE Confidence: 0.874666677619048

 $00{:}22{:}24.232 \dashrightarrow 00{:}22{:}26.512$ dying after a suicide attempt is in

NOTE Confidence: 0.874666677619048

 $00{:}22{:}26.512 \dashrightarrow 00{:}22{:}28.600$ the year after that suicide attempt.

NOTE Confidence: 0.874666677619048

 $00{:}22{:}28.600 \dashrightarrow 00{:}22{:}30.686$ Yet our study found that nearly half

NOTE Confidence: 0.874666677619048

00:22:30.686 --> 00:22:32.630 of individuals are reporting an unmet

00:22:32.630 --> 00:22:34.616 need for treatment during this time,

NOTE Confidence: 0.874666677619048

 $00:22:34.620 \longrightarrow 00:22:37.540$ which really speaks to.

NOTE Confidence: 0.874666677619048

 $00:22:37.540 \longrightarrow 00:22:39.484$ Just how big of an issue

NOTE Confidence: 0.874666677619048

 $00:22:39.484 \longrightarrow 00:22:40.780$ access continues to be,

NOTE Confidence: 0.874666677619048

 $00:22:40.780 \longrightarrow 00:22:42.022$ and I know that this is

NOTE Confidence: 0.874666677619048

00:22:42.022 --> 00:22:43.320 something that all of you know,

NOTE Confidence: 0.874666677619048

 $00:22:43.320 \longrightarrow 00:22:44.892$ especially those of you who who

NOTE Confidence: 0.874666677619048

00:22:44.892 --> 00:22:46.253 work in our emergency departments

NOTE Confidence: 0.874666677619048

00:22:46.253 --> 00:22:47.825 or in in patient units and try

NOTE Confidence: 0.874666677619048

 $00:22:47.825 \longrightarrow 00:22:50.118$ to get care in the community for

NOTE Confidence: 0.874666677619048

 $00{:}22{:}50.118 \dashrightarrow 00{:}22{:}51.574$ individuals after they're discharging.

NOTE Confidence: 0.874666677619048

00:22:51.580 --> 00:22:54.376 That access continues to remain a

NOTE Confidence: 0.874666677619048

 $00:22:54.376 \longrightarrow 00:22:56.240$ significant issue and specifically

NOTE Confidence: 0.874666677619048

 $00:22:56.310 \longrightarrow 00:22:58.613$ cost was cited as the number one

NOTE Confidence: 0.874666677619048

 $00:22:58.613 \longrightarrow 00:23:00.560$ barrier to care in our study.

NOTE Confidence: 0.874666677619048

 $00{:}23{:}00.560 \dashrightarrow 00{:}23{:}02.042$ It's also important to note that

 $00:23:02.042 \longrightarrow 00:23:04.396$ most of the data in our study was

NOTE Confidence: 0.874666677619048

 $00{:}23{:}04.396 \dashrightarrow 00{:}23{:}06.036$ collected after implementation of the

NOTE Confidence: 0.874666677619048

 $00:23:06.036 \longrightarrow 00:23:07.928$ Affordable Care Act when we had a lot of.

NOTE Confidence: 0.874666677619048

00:23:07.930 --> 00:23:09.938 Different policies and insurance

NOTE Confidence: 0.874666677619048

00:23:09.938 --> 00:23:11.946 expansions that were really

NOTE Confidence: 0.874666677619048

 $00:23:11.946 \longrightarrow 00:23:14.258$ targeted at lowering the cost

NOTE Confidence: 0.874666677619048

00:23:14.258 --> 00:23:16.308 of care and improving access,

NOTE Confidence: 0.874666677619048

 $00:23:16.310 \longrightarrow 00:23:18.795$ but it is discouraging to see that

NOTE Confidence: 0.874666677619048

 $00{:}23{:}18.795 \dashrightarrow 00{:}23{:}20.845$ cost still remains such a barrier

NOTE Confidence: 0.874666677619048

00:23:20.845 --> 00:23:24.020 to care for folks next slide.

NOTE Confidence: 0.874666677619048

00:23:24.020 --> 00:23:26.743 And so when we're looking at potential

NOTE Confidence: 0.874666677619048

 $00:23:26.743 \longrightarrow 00:23:29.727$ interventions to to work on in the future,

NOTE Confidence: 0.874666677619048

 $00{:}23{:}29.730 \dashrightarrow 00{:}23{:}31.170$ I think it's important that there's

NOTE Confidence: 0.874666677619048

00:23:31.170 --> 00:23:32.406 really kind of two potential

NOTE Confidence: 0.874666677619048

 $00:23:32.406 \longrightarrow 00:23:33.774$ areas that we can look at.

 $00:23:33.780 \longrightarrow 00:23:36.105$ The first is interventions within

NOTE Confidence: 0.874666677619048

 $00{:}23{:}36.105 \dashrightarrow 00{:}23{:}37.965$ the formal health care system.

NOTE Confidence: 0.86598027

 $00:23:37.970 \longrightarrow 00:23:41.640$ Next slide. And so there are a

NOTE Confidence: 0.86598027

 $00:23:41.640 \longrightarrow 00:23:42.920$ number of evidence based strategies

NOTE Confidence: 0.86598027

 $00:23:42.968 \longrightarrow 00:23:44.363$ within the formal healthcare system

NOTE Confidence: 0.86598027

 $00{:}23{:}44.363 \dashrightarrow 00{:}23{:}46.239$ that we can continue to focus on.

NOTE Confidence: 0.86598027

00:23:46.240 --> 00:23:48.298 Like I said, routine suicide screening,

NOTE Confidence: 0.86598027

00:23:48.300 --> 00:23:50.210 not only in psychiatric settings

NOTE Confidence: 0.86598027

 $00{:}23{:}50.210 \dashrightarrow 00{:}23{:}52.120$ but also in medical settings.

NOTE Confidence: 0.86598027

 $00:23:52.120 \longrightarrow 00:23:54.017$ There's been a fair amount of evidence

NOTE Confidence: 0.86598027

 $00:23:54.017 \longrightarrow 00:23:55.983$ to show that brief interventions in

NOTE Confidence: 0.86598027

 $00{:}23{:}55.983 \to 00{:}23{:}57.813$ the emergency department and follow

NOTE Confidence: 0.86598027

 $00:23:57.813 \longrightarrow 00:24:00.031$ up contact through postcards or phone

NOTE Confidence: 0.86598027

 $00{:}24{:}00.031 \dashrightarrow 00{:}24{:}01.811$ calls after patients are discharged

NOTE Confidence: 0.86598027

00:24:01.811 --> 00:24:03.676 from our emergency departments,

NOTE Confidence: 0.86598027

 $00{:}24{:}03.676 \dashrightarrow 00{:}24{:}05.964$ can lower suicide attempts and

00:24:05.964 --> 00:24:07.676 suicide rates after discharge,

NOTE Confidence: 0.86598027

 $00{:}24{:}07.680 \dashrightarrow 00{:}24{:}09.450$ and we know that suicide safety

NOTE Confidence: 0.86598027

 $00:24:09.450 \longrightarrow 00:24:10.335$ planning is a.

NOTE Confidence: 0.86598027

00:24:10.340 --> 00:24:11.384 And it's based intervention,

NOTE Confidence: 0.86598027

 $00:24:11.384 \longrightarrow 00:24:14.050$ so I think we need to continue to make

NOTE Confidence: 0.86598027

00:24:14.050 --> 00:24:15.795 sure that our emergency departments

NOTE Confidence: 0.86598027

 $00:24:15.795 \longrightarrow 00:24:17.806$ and healthcare systems are equipped to

NOTE Confidence: 0.86598027

 $00:24:17.806 \longrightarrow 00:24:19.581$ really implement these interventions.

NOTE Confidence: 0.86598027

 $00:24:19.581 \longrightarrow 00:24:23.560$ But I think we also need next slide,

NOTE Confidence: 0.86598027

 $00{:}24{:}23.560 \rightarrow 00{:}24{:}25.824$ public health oriented interventions

NOTE Confidence: 0.86598027

 $00{:}24{:}25.824 \dashrightarrow 00{:}24{:}28.654$ outside of the healthcare system.

NOTE Confidence: 0.86598027

 $00:24:28.660 \longrightarrow 00:24:29.956$ Interventions that really begin

NOTE Confidence: 0.86598027

 $00{:}24{:}29.956 \dashrightarrow 00{:}24{:}31.576$ to address the social conditions

NOTE Confidence: 0.86598027

00:24:31.576 --> 00:24:33.602 in which people are living and the

NOTE Confidence: 0.86598027

00:24:33.602 --> 00:24:35.134 social conditions that we know

00:24:35.134 --> 00:24:36.259 precede suicidal behavior.

NOTE Confidence: 0.86598027

00:24:36.260 --> 00:24:37.380 And so in our study,

NOTE Confidence: 0.86598027

 $00:24:37.380 \longrightarrow 00:24:38.288$ for example,

NOTE Confidence: 0.86598027

 $00:24:38.288 \longrightarrow 00:24:40.104$ individuals who were unemployed

NOTE Confidence: 0.86598027

 $00:24:40.104 \longrightarrow 00:24:41.466$ showed the greatest.

NOTE Confidence: 0.86598027

 $00{:}24{:}41.470 \dashrightarrow 00{:}24{:}43.570$ Increase in suicide attempts over

NOTE Confidence: 0.86598027

 $00:24:43.570 \longrightarrow 00:24:44.830$ the study period.

NOTE Confidence: 0.86598027

00:24:44.830 --> 00:24:46.990 There's been a fair amount of

NOTE Confidence: 0.86598027

 $00:24:46.990 \longrightarrow 00:24:48.998$ evidence to suggest that states

NOTE Confidence: 0.86598027

 $00:24:48.998 \longrightarrow 00:24:50.998$ with more generous unemployment

NOTE Confidence: 0.86598027

 $00:24:50.998 \longrightarrow 00:24:53.498$ benefits actually so reduced suicide

NOTE Confidence: 0.86598027

 $00:24:53.566 \longrightarrow 00:24:56.457$ rate at the state level after those

NOTE Confidence: 0.86598027

 $00:24:56.457 \longrightarrow 00:24:58.777$ more generous unemployment benefits

NOTE Confidence: 0.86598027

 $00:24:58.777 \longrightarrow 00:25:02.008$ are implemented next.

NOTE Confidence: 0.86598027

00:25:02.010 --> 00:25:03.746 The same can be true for anti poverty.

NOTE Confidence: 0.86598027

 $00:25:03.750 \longrightarrow 00:25:05.815$ Income supports things like temporary

00:25:05.815 --> 00:25:07.467 assistance for needy families

NOTE Confidence: 0.86598027

00:25:07.467 --> 00:25:08.769 or TANF benefits.

NOTE Confidence: 0.86598027

 $00:25:08.770 \longrightarrow 00:25:10.894$ There's a fair amount of evidence

NOTE Confidence: 0.86598027

 $00:25:10.894 \longrightarrow 00:25:13.140$ to support that states with more

NOTE Confidence: 0.86598027

00:25:13.140 --> 00:25:14.660 generous TANF benefits actually

NOTE Confidence: 0.86598027

 $00:25:14.660 \longrightarrow 00:25:16.929$ see a reduction in their suicide

NOTE Confidence: 0.86598027

 $00:25:16.929 \longrightarrow 00:25:18.644$ rate at the state level.

NOTE Confidence: 0.86598027

 $00{:}25{:}18.650 \to 00{:}25{:}20.722$ One particularly interesting modeling

NOTE Confidence: 0.86598027

 $00{:}25{:}20.722 \dashrightarrow 00{:}25{:}22.794$ study from economist estimated

NOTE Confidence: 0.86598027

 $00:25:22.794 \longrightarrow 00:25:25.593$ that we may be able to reduce 3000

NOTE Confidence: 0.86598027

 $00{:}25{:}25.593 \dashrightarrow 00{:}25{:}26.908$ suicide deaths in our country.

NOTE Confidence: 0.86598027

 $00:25:26.910 \longrightarrow 00:25:29.230$ That's one in nine suicide deaths each year.

NOTE Confidence: 0.86598027

 $00:25:29.230 \longrightarrow 00:25:31.460$ If we were to improve.

NOTE Confidence: 0.86598027

00:25:31.460 --> 00:25:33.880 Increased tanaff benefits by

NOTE Confidence: 0.86598027

 $00:25:33.880 \longrightarrow 00:25:36.300$ a relatively marginal amount.

 $00:25:36.300 \longrightarrow 00:25:36.756$ Next slide,

NOTE Confidence: 0.86598027

 $00:25:36.756 \longrightarrow 00:25:38.352$ I think we need to continue to

NOTE Confidence: 0.86598027

 $00:25:38.352 \longrightarrow 00:25:39.733$ invest in Community based crisis

NOTE Confidence: 0.86598027

00:25:39.733 --> 00:25:41.383 response which is receiving a lot

NOTE Confidence: 0.86598027

 $00:25:41.433 \longrightarrow 00:25:43.225$ of attention right now to make sure

NOTE Confidence: 0.86598027

 $00{:}25{:}43.225 \dashrightarrow 00{:}25{:}44.772$ that we're reaching people during

NOTE Confidence: 0.86598027

 $00:25:44.772 \longrightarrow 00:25:47.088$ times of crisis and referring them

NOTE Confidence: 0.86598027

 $00:25:47.088 \longrightarrow 00:25:49.798$ to an appropriate level of care.

NOTE Confidence: 0.86598027

 $00{:}25{:}49.800 \dashrightarrow 00{:}25{:}50.126 \ \mathrm{Next},$

NOTE Confidence: 0.86598027

 $00:25:50.126 \longrightarrow 00:25:52.082$ we need to continue to expand

NOTE Confidence: 0.86598027

 $00{:}25{:}52.082 \dashrightarrow 00{:}25{:}54.075$ gate keeper trainings to make sure that

NOTE Confidence: 0.86598027

 $00:25:54.075 \longrightarrow 00:25:56.315$ lay individuals in schools and in churches,

NOTE Confidence: 0.86598027

 $00:25:56.320 \longrightarrow 00:25:58.395$ people that frequently come into

NOTE Confidence: 0.86598027

00:25:58.395 --> 00:26:00.055 contact with suicidal individuals,

NOTE Confidence: 0.86598027

 $00{:}26{:}00.060 \dashrightarrow 00{:}26{:}02.802$ feel comfortable doing a basic suicide

NOTE Confidence: 0.86598027

 $00{:}26{:}02.802 \dashrightarrow 00{:}26{:}05.118$ risk assessment and referring individuals

 $00:26:05.118 \longrightarrow 00:26:09.050$ to an appropriate level of care next.

NOTE Confidence: 0.86598027

 $00:26:09.050 \longrightarrow 00:26:11.274$ We need to continue to look at means

NOTE Confidence: 0.86598027

 $00:26:11.274 \longrightarrow 00:26:13.257$ control when we look at systematic

NOTE Confidence: 0.86598027

 $00:26:13.257 \longrightarrow 00:26:15.303$ reviews and meta analysis of effective

NOTE Confidence: 0.86598027

 $00:26:15.361 \longrightarrow 00:26:17.177$ suicide interventions means control

NOTE Confidence: 0.86598027

 $00:26:17.177 \longrightarrow 00:26:18.993$ consistently demonstrates the most

NOTE Confidence: 0.86598027

 $00:26:18.993 \longrightarrow 00:26:21.760$ amount of evidence at being able to

NOTE Confidence: 0.86598027

 $00{:}26{:}21.760 \dashrightarrow 00{:}26{:}24.452$ reduce our suicide rates and and so

NOTE Confidence: 0.86598027

 $00{:}26{:}24.452 \dashrightarrow 00{:}26{:}26.756$ this is mainly focused on firearm

NOTE Confidence: 0.86598027

00:26:26.756 --> 00:26:28.871 restriction for higher high risk

NOTE Confidence: 0.86598027

 $00{:}26{:}28.871 \dashrightarrow 00{:}26{:}30.996$ individuals and also focusing on

NOTE Confidence: 0.86598027

 $00{:}26{:}30.996 \rightarrow 00{:}26{:}33.665$ safe firearm storage for individuals

NOTE Confidence: 0.86598027

 $00{:}26{:}33.665 \dashrightarrow 00{:}26{:}35.480$ who possess firearms.

NOTE Confidence: 0.86598027

00:26:35.480 --> 00:26:36.110 And finally,

NOTE Confidence: 0.86598027

 $00:26:36.110 \longrightarrow 00:26:38.315$ this would be a talk on epidemiology

 $00:26:38.315 \longrightarrow 00:26:39.659$ or health services.

NOTE Confidence: 0.86598027

00:26:39.660 --> 00:26:41.684 If we didn't focus on data and really

NOTE Confidence: 0.86598027

 $00:26:41.684 \longrightarrow 00:26:43.479$ improving our our surveillance systems.

NOTE Confidence: 0.86598027

 $00:26:43.480 \longrightarrow 00:26:46.918$ Right now, the CDC is only.

NOTE Confidence: 0.86598027

 $00:26:46.920 \longrightarrow 00:26:48.468$ Tracking and monitoring deaths

NOTE Confidence: 0.86598027

 $00:26:48.468 \longrightarrow 00:26:50.790$ by suicide and we don't really

NOTE Confidence: 0.853836689347826

 $00:26:50.859 \longrightarrow 00:26:53.259$ have any monitoring systems or surveillance

NOTE Confidence: 0.853836689347826

 $00:26:53.259 \longrightarrow 00:26:56.258$ data on other types of suicidal behavior.

NOTE Confidence: 0.853836689347826

 $00{:}26{:}56.260 {\:{\mbox{--}}}{>} 00{:}26{:}58.060$ Things like non suicidal self

NOTE Confidence: 0.853836689347826

 $00:26:58.060 \longrightarrow 00:26:59.500$ injury or suicide attempts.

NOTE Confidence: 0.853836689347826

 $00{:}26{:}59.500 \dashrightarrow 00{:}27{:}01.500$ And so my last slide.

NOTE Confidence: 0.853836689347826

 $00:27:01.500 \longrightarrow 00:27:03.892$ I just like to talk a little bit

NOTE Confidence: 0.853836689347826

 $00:27:03.892 \longrightarrow 00:27:05.989$ about these surveillance systems.

NOTE Confidence: 0.853836689347826

 $00:27:05.990 \longrightarrow 00:27:08.807$ And so this is a map of the current

NOTE Confidence: 0.853836689347826

00:27:08.810 --> 00:27:10.198 CDC state level surveillance,

NOTE Confidence: 0.853836689347826

 $00:27:10.198 \longrightarrow 00:27:13.497$ and so you can see on this map that

00:27:13.497 --> 00:27:15.402 CDC basically tracks which states

NOTE Confidence: 0.853836689347826

 $00:27:15.402 \longrightarrow 00:27:18.010$ have the highest rates of suicides,

NOTE Confidence: 0.853836689347826

 $00:27:18.010 \longrightarrow 00:27:20.350$ and in this map it's the

NOTE Confidence: 0.853836689347826

 $00:27:20.350 \longrightarrow 00:27:21.910$ states with dark blue.

NOTE Confidence: 0.853836689347826

 $00:27:21.910 \longrightarrow 00:27:23.482$ But this sort of map isn't

NOTE Confidence: 0.853836689347826

 $00:27:23.482 \longrightarrow 00:27:24.530$ really all that actionable.

NOTE Confidence: 0.853836689347826

00:27:24.530 --> 00:27:26.777 It doesn't really tell us what might

NOTE Confidence: 0.853836689347826

 $00:27:26.777 \longrightarrow 00:27:28.789$ be occurring at the state level.

NOTE Confidence: 0.853836689347826

 $00{:}27{:}28.790 \dashrightarrow 00{:}27{:}30.848$ What might be the high risk populations

NOTE Confidence: 0.853836689347826

 $00:27:30.848 \longrightarrow 00:27:33.011$ in these States and so one alternative

NOTE Confidence: 0.853836689347826

00:27:33.011 --> 00:27:34.841 approach would be to really expand

NOTE Confidence: 0.853836689347826

 $00:27:34.899 \longrightarrow 00:27:36.555$ our ability to do county level.

NOTE Confidence: 0.853836689347826

 $00:27:36.560 \longrightarrow 00:27:39.998$ Surveillance next slide.

NOTE Confidence: 0.853836689347826

 $00:27:40.000 \longrightarrow 00:27:41.610$ And so an example of of county

NOTE Confidence: 0.853836689347826

00:27:41.610 --> 00:27:42.596 level surveillance may be

 $00:27:42.596 \longrightarrow 00:27:43.826$ something that looks like this.

NOTE Confidence: 0.853836689347826

 $00:27:43.830 \longrightarrow 00:27:46.238$ This was a a recent geographic analysis

NOTE Confidence: 0.853836689347826

00:27:46.238 --> 00:27:48.721 that we did trying to identify high

NOTE Confidence: 0.853836689347826

00:27:48.721 --> 00:27:51.400 risk counties in the US for suicide.

NOTE Confidence: 0.853836689347826

 $00:27:51.400 \longrightarrow 00:27:53.608$ So all the counties in red are actually

NOTE Confidence: 0.853836689347826

 $00{:}27{:}53.608 \dashrightarrow 00{:}27{:}56.167$ the 50 counties in the US whose suicide

NOTE Confidence: 0.853836689347826

 $00:27:56.167 \longrightarrow 00:27:58.246$ rates are over triple the national

NOTE Confidence: 0.853836689347826

 $00:27:58.246 \longrightarrow 00:28:00.406$ average and whose rates continue to

NOTE Confidence: 0.853836689347826

 $00:28:00.406 \longrightarrow 00:28:02.492$ increase at a rate much at a rate

NOTE Confidence: 0.853836689347826

 $00:28:02.492 \longrightarrow 00:28:04.379$ much higher than the national average.

NOTE Confidence: 0.853836689347826

 $00:28:04.380 \longrightarrow 00:28:05.676$ And so this type of data,

NOTE Confidence: 0.853836689347826 00:28:05.680 --> 00:28:06.226 I think, NOTE Confidence: 0.853836689347826

 $00:28:06.226 \longrightarrow 00:28:07.318$ is much more actionable.

NOTE Confidence: 0.853836689347826

 $00:28:07.320 \longrightarrow 00:28:08.784$ It would allow us to really

NOTE Confidence: 0.853836689347826

 $00:28:08.784 \longrightarrow 00:28:09.516$ target our interventions.

NOTE Confidence: 0.853836689347826

 $00:28:09.520 \longrightarrow 00:28:11.632$ Or grant funding to these particular

00:28:11.632 --> 00:28:13.935 counties to begin to understand what

NOTE Confidence: 0.853836689347826

 $00{:}28{:}13.935 \dashrightarrow 00{:}28{:}16.010$ is happening at these counties.

NOTE Confidence: 0.853836689347826

00:28:16.010 --> 00:28:18.355 What are the high risk populations and

NOTE Confidence: 0.853836689347826

00:28:18.355 --> 00:28:21.100 what might we target to begin to reduce

NOTE Confidence: 0.853836689347826

00:28:21.100 --> 00:28:23.420 the suicide rates in these counties?

NOTE Confidence: 0.85383668934782600:28:23.420 --> 00:28:25.000 Next slide.

NOTE Confidence: 0.853836689347826

00:28:25.000 --> 00:28:27.088 And so finally, I just want to acknowledge

NOTE Confidence: 0.853836689347826

 $00{:}28{:}27.088 \dashrightarrow 00{:}28{:}28.980$ my my mentors on this project.

NOTE Confidence: 0.853836689347826 00:28:28.980 --> 00:28:29.846 Again. NOTE Confidence: 0.853836689347826

00:28:29.846 --> 00:28:31.578 Doctor rosenak.

NOTE Confidence: 0.853836689347826

00:28:31.580 --> 00:28:33.458 Doctor Reed and again give special

NOTE Confidence: 0.853836689347826

 $00{:}28{:}33.458 \dashrightarrow 00{:}28{:}36.090$ thanks to the to the Seymour Lossman

NOTE Confidence: 0.853836689347826

 $00:28:36.090 \longrightarrow 00:28:38.280$ Foundation for sponsoring this award.

NOTE Confidence: 0.853836689347826

 $00{:}28{:}38.280 --> 00{:}28{:}39.460$ So thank you so much.

NOTE Confidence: 0.838325736666667

00:28:44.740 --> 00:28:46.738 Thank you Tanner. That was great.

 $00:28:46.740 \longrightarrow 00:28:49.110$ Such an important topic and

NOTE Confidence: 0.838325736666667

 $00{:}28{:}49.110 \dashrightarrow 00{:}28{:}51.006$ really very clearly presented.

NOTE Confidence: 0.838325736666667

 $00:28:51.010 \longrightarrow 00:28:53.346$ We do have because in addition to his

NOTE Confidence: 0.838325736666667

 $00:28:53.346 \longrightarrow 00:28:55.007$ other manifold talents that you've

NOTE Confidence: 0.838325736666667

 $00:28:55.007 \longrightarrow 00:28:56.692$ heard about Tanners proven himself

NOTE Confidence: 0.838325736666667

 $00:28:56.692 \longrightarrow 00:28:58.837$ to be a master of time control,

NOTE Confidence: 0.838325736666667

 $00:28:58.840 \longrightarrow 00:29:00.212$ and so we have a minute or

NOTE Confidence: 0.838325736666667

 $00:29:00.212 \longrightarrow 00:29:01.360$ two here for questions.

NOTE Confidence: 0.838325736666667

 $00{:}29{:}01.360 \dashrightarrow 00{:}29{:}03.772$ If anyone has questions or comments

NOTE Confidence: 0.838325736666667

 $00:29:03.772 \longrightarrow 00:29:06.730$ before we go on to our next top.

NOTE Confidence: 0.838325736666667

 $00:29:06.730 \longrightarrow 00:29:10.130$ Power. How much of a factor

NOTE Confidence: 0.838325736666667

 $00{:}29{:}10.130 --> 00{:}29{:}11.830$ do you think that since cost

NOTE Confidence: 0.93331011125

 $00:29:11.840 \longrightarrow 00:29:15.304$ seems to be so much of an issue?

NOTE Confidence: 0.93331011125

 $00:29:15.310 \longrightarrow 00:29:17.435$ How big an issue and how much

NOTE Confidence: 0.93331011125

 $00:29:17.435 \longrightarrow 00:29:19.716$ of a role does the fact that

NOTE Confidence: 0.93331011125

 $00{:}29{:}19.716 \dashrightarrow 00{:}29{:}21.208$ psychiatrists frequently don't even

00:29:21.210 --> 00:29:23.406 don't take insurance must much less?

NOTE Confidence: 0.93331011125

00:29:23.410 --> 00:29:26.640 Medic, Medicare or Medicaid?

NOTE Confidence: 0.928251595

00:29:28.950 --> 00:29:30.406 Yeah, I think I think that's a really,

NOTE Confidence: 0.928251595

 $00:29:30.410 \longrightarrow 00:29:33.134$ really important issue and I think

NOTE Confidence: 0.928251595

 $00:29:33.134 \longrightarrow 00:29:35.520$ most of us you know who who take care

NOTE Confidence: 0.928251595

 $00:29:35.520 \longrightarrow 00:29:36.913$ of patients on this call know that

NOTE Confidence: 0.928251595

00:29:36.913 --> 00:29:38.245 it's not necessarily our patients with

NOTE Confidence: 0.928251595

 $00{:}29{:}38.245 \dashrightarrow 00{:}29{:}39.713$ public insurance that we have a hard

NOTE Confidence: 0.928251595

00:29:39.713 --> 00:29:41.054 time finding out patient care for,

NOTE Confidence: 0.928251595

 $00:29:41.054 \longrightarrow 00:29:42.656$ but it's our patients with private

NOTE Confidence: 0.928251595

00:29:42.656 --> 00:29:44.270 insurance and our patients who are

NOTE Confidence: 0.928251595

 $00:29:44.270 \longrightarrow 00:29:45.818$ uninsured and that actually in this

NOTE Confidence: 0.928251595

 $00{:}29{:}45.864 \dashrightarrow 00{:}29{:}47.574$ particular study we found that suicide

NOTE Confidence: 0.928251595

 $00:29:47.574 \longrightarrow 00:29:49.152$ attempt rates have been increasing

NOTE Confidence: 0.928251595

 $00:29:49.152 \longrightarrow 00:29:50.880$ amongst those two populations.

 $00:29:50.880 \longrightarrow 00:29:52.696$ Individuals with private insurance

NOTE Confidence: 0.928251595

 $00{:}29{:}52.696 \dashrightarrow 00{:}29{:}54.966$ and individuals who are uninsured

NOTE Confidence: 0.928251595

 $00:29:54.970 \longrightarrow 00:29:57.088$ and and so the access problem,

NOTE Confidence: 0.928251595

 $00:29:57.090 \longrightarrow 00:29:58.526$ I think, really is.

NOTE Confidence: 0.928251595

00:29:58.526 --> 00:30:01.138 Was focused on on those two two

NOTE Confidence: 0.928251595

 $00:30:01.138 \longrightarrow 00:30:02.330$ groups of individuals.

NOTE Confidence: 0.742421490588235

 $00:30:08.330 \longrightarrow 00:30:10.052$ And are you noted that your strongest

NOTE Confidence: 0.742421490588235

 $00:30:10.052 \longrightarrow 00:30:11.410$ predictors of the OR correlates

NOTE Confidence: 0.742421490588235

 $00:30:11.410 \longrightarrow 00:30:12.845$ of the increased suicide rates,

NOTE Confidence: 0.742421490588235

00:30:12.850 --> 00:30:14.242 weren't mental health diagnosed?

NOTE Confidence: 0.742421490588235

 $00:30:14.242 \longrightarrow 00:30:16.330$ They were age and unemployment and

NOTE Confidence: 0.742421490588235

 $00:30:16.390 \longrightarrow 00:30:18.160$ the other factors that you listed.

NOTE Confidence: 0.742421490588235

00:30:18.160 --> 00:30:20.449 But did you look at mental health?

NOTE Confidence: 0.742421490588235

 $00:30:20.450 \longrightarrow 00:30:22.378$ Did mental health diagnosis

NOTE Confidence: 0.742421490588235

 $00:30:22.378 \longrightarrow 00:30:23.824$ increase in parallel?

NOTE Confidence: 0.742421490588235

 $00:30:23.830 \longrightarrow 00:30:25.648$ And if you look at them as a mediator,

00:30:25.650 --> 00:30:26.938 maybe unemployment leads to

NOTE Confidence: 0.742421490588235

 $00:30:26.938 \longrightarrow 00:30:28.226$ an increase in depression,

NOTE Confidence: 0.742421490588235

 $00{:}30{:}28.230 \dashrightarrow 00{:}30{:}30.178$ which mediates the increase.

NOTE Confidence: 0.742421490588235

 $00:30:30.178 \longrightarrow 00:30:31.639$ Made of suicide.

NOTE Confidence: 0.838381154285714

00:30:33.070 --> 00:30:34.366 Good question, good question.

NOTE Confidence: 0.838381154285714

 $00:30:34.366 \longrightarrow 00:30:37.263$ We didn't look at it as a mediator and

NOTE Confidence: 0.838381154285714

 $00:30:37.263 \longrightarrow 00:30:39.630$ one of the limitations of the NIS.

NOTE Confidence: 0.838381154285714

 $00:30:39.630 \longrightarrow 00:30:41.712$ That data set is it? It doesn't.

NOTE Confidence: 0.838381154285714

 $00:30:41.712 \longrightarrow 00:30:42.976$ It's focused on substance.

NOTE Confidence: 0.838381154285714

 $00:30:42.980 \longrightarrow 00:30:45.150$ Use mainly doesn't focus on mental health

NOTE Confidence: 0.838381154285714

 $00{:}30{:}45.150 \dashrightarrow 00{:}30{:}48.134$ and so we only know kind of in the data

NOTE Confidence: 0.838381154285714

 $00:30:48.134 \longrightarrow 00:30:50.042$ set of major depressive episodes as

NOTE Confidence: 0.838381154285714

 $00{:}30{:}50.042 \dashrightarrow 00{:}30{:}51.989$ well as serious psychological distress

NOTE Confidence: 0.838381154285714

 $00:30:51.989 \longrightarrow 00:30:54.873$ which is a nonspecific kind of marker

NOTE Confidence: 0.838381154285714

 $00:30:54.873 \longrightarrow 00:30:57.218$ or indicator of psychological distress.

 $00:30:57.220 \longrightarrow 00:30:58.176$ In the last year.

NOTE Confidence: 0.838381154285714

 $00{:}30{:}58.176 --> 00{:}31{:}00.444$ So it doesn't give us a lot of

NOTE Confidence: 0.838381154285714

 $00:31:00.444 \longrightarrow 00:31:01.996$ information about mental illness.

NOTE Confidence: 0.838381154285714

 $00:31:02.000 \longrightarrow 00:31:03.420$ We did find that.

NOTE Confidence: 0.838381154285714

 $00:31:03.420 \longrightarrow 00:31:05.195$ Individuals with depression and and

NOTE Confidence: 0.838381154285714

00:31:05.195 --> 00:31:07.736 serious psychological distress or highly

NOTE Confidence: 0.838381154285714

 $00:31:07.736 \longrightarrow 00:31:09.428$ associated with attempting suicide.

NOTE Confidence: 0.838381154285714

 $00:31:09.430 \longrightarrow 00:31:11.495$ But we didn't actually see

NOTE Confidence: 0.838381154285714

 $00{:}31{:}11.495 \dashrightarrow 00{:}31{:}13.718$ increases in the suicide attempt

NOTE Confidence: 0.838381154285714

 $00:31:13.718 \longrightarrow 00:31:15.526$ rate amongst these populations.

NOTE Confidence: 0.838381154285714

 $00{:}31{:}15.530 \dashrightarrow 00{:}31{:}17.085$ That was more focused on

NOTE Confidence: 0.838381154285714

 $00:31:17.085 \longrightarrow 00:31:18.329$ individuals who are unemployed.

NOTE Confidence: 0.838381154285714

 $00:31:18.330 \longrightarrow 00:31:20.020$ Individuals with substance use disorders.

NOTE Confidence: 0.838381154285714

00:31:20.020 --> 00:31:20.668 Like I said,

NOTE Confidence: 0.838381154285714

 $00:31:20.668 \longrightarrow 00:31:21.964$ or individuals who were never married.

NOTE Confidence: 0.6203412

 $00:31:23.540 \longrightarrow 00:31:27.040$ Right? Thank you and congratulations again

00:31:27.040 --> 00:31:29.969 Tanner for your for your first place.

NOTE Confidence: 0.6203412

 $00{:}31{:}29.970 \longrightarrow 00{:}31{:}32.560$ Last minute award you will be receiving

NOTE Confidence: 0.6203412

 $00:31:32.560 \longrightarrow 00:31:35.136$ both a certificate and and a cache award.

NOTE Confidence: 0.6203412

00:31:35.140 --> 00:31:36.756 Can't give it to you in person today,

NOTE Confidence: 0.6203412

 $00:31:36.760 \longrightarrow 00:31:40.162$ but that will be on its way to you.

NOTE Confidence: 0.6203412

00:31:40.170 --> 00:31:43.794 All right, I'd now like to invite Renato

NOTE Confidence: 0.6203412

00:31:43.794 --> 00:31:47.342 Pallanti to introduce the first of our

NOTE Confidence: 0.6203412

00:31:47.342 --> 00:31:49.460 Co 2nd place awardees Daniel Tiley.

NOTE Confidence: 0.95561993

00:31:51.010 --> 00:31:52.760 Good morning everyone. It's

NOTE Confidence: 0.89011207

 $00:31:52.770 \longrightarrow 00:31:55.000$ a pleasure to introduce Doctor

NOTE Confidence: 0.788324925

 $00{:}31{:}55.010 \dashrightarrow 00{:}31{:}57.260$ Daniel Kelly. He's a third year

NOTE Confidence: 0.788324925

 $00{:}31{:}57.270 \dashrightarrow 00{:}32{:}00.900$ resident and role in the NRP program.

NOTE Confidence: 0.788324925

 $00{:}32{:}01.070 \dashrightarrow 00{:}32{:}04.250$ After completing his MDPC training at

NOTE Confidence: 0.788324925

00:32:04.250 --> 00:32:06.620 the SUNY Upstate Medical University,

NOTE Confidence: 0.680332563333333

 $00:32:06.630 \longrightarrow 00:32:08.640$ under the mentorship of Doctor

00:32:08.650 --> 00:32:11.760 Steven and Steven Paul. Then

NOTE Confidence: 0.8954201

00:32:11.770 --> 00:32:14.400 join my group in December 2019 and since

NOTE Confidence: 0.8954201

 $00:32:14.400 \longrightarrow 00:32:17.520$ then it became a key member of my team,

NOTE Confidence: 0.8954201

 $00:32:17.520 \longrightarrow 00:32:19.350$ leading several analysis and

NOTE Confidence: 0.8954201

 $00:32:19.350 \longrightarrow 00:32:21.230$ contributed to many projects.

NOTE Confidence: 0.712010666666667

 $00:32:21.300 \longrightarrow 00:32:21.999$ Going to happen.

NOTE Confidence: 0.750708918

 $00:32:22.510 \longrightarrow 00:32:24.700$ He did all of these also having

NOTE Confidence: 0.750708918

 $00:32:24.700 \longrightarrow 00:32:27.230$ a very busy clinical schedule.

NOTE Confidence: 0.8461319

 $00:32:28.240 \dashrightarrow 00:32:29.980$ Because of his accomplishment this

NOTE Confidence: 0.4682278828

00:32:29.990 --> 00:32:32.590 year, then received the Chairs Choice Award

NOTE Confidence: 0.94983824

 $00{:}32{:}32.600 \dashrightarrow 00{:}32{:}34.746$ from the Society of Biological

NOTE Confidence: 0.94983824

00:32:34.746 --> 00:32:36.250 Psychiatry additionally into

NOTE Confidence: 0.755507486666667

 $00:32:36.900 \longrightarrow 00:32:39.210$ 2020 also received the D3 Award

NOTE Confidence: 0.93637142

 $00:32:39.220 \longrightarrow 00:32:42.002$ from our department to work on

NOTE Confidence: 0.93637142

00:32:42.002 --> 00:32:44.174 a study to extract high quality

NOTE Confidence: 0.93637142

 $00{:}32{:}44.174 \dashrightarrow 00{:}32{:}46.040$ depression digital phenotypes

 $00:32:46.040 \longrightarrow 00:32:48.119$ from the Yale New Haven Health System.

NOTE Confidence: 0.7035666375

00:32:48.120 --> 00:32:50.650 Electronical triggers today

NOTE Confidence: 0.83792452

 $00:32:50.720 \longrightarrow 00:32:52.508$ is going to present his work

NOTE Confidence: 0.607158624

00:32:52.560 --> 00:32:54.700 recently published in JAMA Psychiatry,

NOTE Confidence: 0.607158624

 $00:32:54.700 \longrightarrow 00:32:56.460$ where we showed the complex

NOTE Confidence: 0.607158624

 $00{:}32{:}56.460 \dashrightarrow 00{:}32{:}59.010$ dynamics linking. Psychopathology

NOTE Confidence: 0.85844733

 $00:32:59.010 \longrightarrow 00:33:02.260$ and immune function using genetic data. So

NOTE Confidence: 0.483257283333333

 $00:33:02.270 \longrightarrow 00:33:04.230$ without further ado please then.

NOTE Confidence: 0.8221846825

00:33:06.510 --> 00:33:09.245 Thank you Renato for that

NOTE Confidence: 0.8221846825

 $00{:}33{:}09.245 \dashrightarrow 00{:}33{:}10.886$ really generous introduction.

NOTE Confidence: 0.8221846825

 $00{:}33{:}10.890 \dashrightarrow 00{:}33{:}14.004$ I want to make sure y'all can see my

NOTE Confidence: 0.8221846825

 $00:33:14.004 \longrightarrow 00:33:16.436$ screen that I think I've done it wrong.

NOTE Confidence: 0.894462238

00:33:21.810 --> 00:33:26.260 So if I do this, can you see my slides?

NOTE Confidence: 0.894462238

 $00:33:26.260 \longrightarrow 00:33:29.448$ Presenter View presenter view. How about now.

NOTE Confidence: 0.82906115

 $00:33:29.850 \longrightarrow 00:33:33.420$ Hang on one SEC there we go perfect. OK,

 $00:33:34.220 \longrightarrow 00:33:36.257$ so the work I'm going to be

NOTE Confidence: 0.8630118925

00:33:36.257 --> 00:33:38.986 presenting to you today is in the

NOTE Confidence: 0.8630118925

00:33:38.986 --> 00:33:42.008 area of genetic epidemiology and

NOTE Confidence: 0.8630118925

00:33:42.008 --> 00:33:43.960 it's specifically cross disorder,

NOTE Confidence: 0.8630118925

 $00:33:43.960 \longrightarrow 00:33:44.940$ genetic epidemiology.

NOTE Confidence: 0.8630118925

00:33:44.940 --> 00:33:47.390 Looking at relationships between psychiatric

NOTE Confidence: 0.8630118925

00:33:47.390 --> 00:33:49.780 disorders and some related phenotypes,

NOTE Confidence: 0.8630118925

00:33:49.780 --> 00:33:53.140 not quite disorders, personality traits,

NOTE Confidence: 0.8630118925

 $00{:}33{:}53.140 \dashrightarrow 00{:}33{:}56.110$ and basically representative.

NOTE Confidence: 0.8630118925

 $00:33:56.110 \longrightarrow 00:33:59.340$ Sample available sample of autoimmune

NOTE Confidence: 0.8630118925

 $00:33:59.340 \longrightarrow 00:34:01.102$ diseases, allergic conditions

NOTE Confidence: 0.8630118925

 $00:34:01.102 \longrightarrow 00:34:02.770$ and inflammatory conditions.

NOTE Confidence: 0.8630118925

 $00:34:02.770 \longrightarrow 00:34:05.976$ So kind of like running the gamut.

NOTE Confidence: 0.8630118925

 $00:34:05.980 \longrightarrow 00:34:07.762$ Two things that are important to

NOTE Confidence: 0.8630118925

 $00:34:07.762 \longrightarrow 00:34:10.111$ know about this is that this is

NOTE Confidence: 0.8630118925

 $00{:}34{:}10.111 \dashrightarrow 00{:}34{:}11.575$ basically leveraging GWAS data.

00:34:11.580 --> 00:34:13.715 So genome Wide Association study

NOTE Confidence: 0.8630118925

 $00{:}34{:}13.715 \dashrightarrow 00{:}34{:}16.769$ data which looks at the effects of

NOTE Confidence: 0.8630118925

 $00:34:16.769 \longrightarrow 00:34:19.170$ changes in the letter, the base,

NOTE Confidence: 0.8630118925

00:34:19.170 --> 00:34:21.690 the letter base pair at different positions,

NOTE Confidence: 0.8630118925

00:34:21.690 --> 00:34:23.655 positions in the genome in

NOTE Confidence: 0.8630118925

 $00:34:23.655 \longrightarrow 00:34:25.227$ association with the disorder.

NOTE Confidence: 0.8630118925

 $00:34:25.230 \longrightarrow 00:34:27.095$ So these are basically data

NOTE Confidence: 0.8630118925

 $00:34:27.095 \longrightarrow 00:34:28.587$ that were generated elsewhere,

NOTE Confidence: 0.8630118925

 $00:34:28.590 \longrightarrow 00:34:30.314$ usually by large consortia,

NOTE Confidence: 0.8630118925

 $00:34:30.314 \longrightarrow 00:34:32.469$ and I'm using the data,

NOTE Confidence: 0.8630118925

 $00{:}34{:}32.470 \dashrightarrow 00{:}34{:}34.415$ repurposing it and putting it

NOTE Confidence: 0.8630118925

 $00:34:34.415 \longrightarrow 00:34:36.360$ together for some novel analysis.

NOTE Confidence: 0.9165150825

 $00{:}34{:}40.360 \dashrightarrow 00{:}34{:}43.496$ This is the the sort of the citation.

NOTE Confidence: 0.9165150825

00:34:43.500 --> 00:34:44.320 If you're interested in

NOTE Confidence: 0.9165150825

00:34:44.320 --> 00:34:45.345 learning more of the details,

 $00:34:45.350 \longrightarrow 00:34:47.357$ we won't be able to get into many of

NOTE Confidence: 0.9165150825

 $00:34:47.357 \longrightarrow 00:34:49.650$ the details today with the limited time.

NOTE Confidence: 0.9165150825

 $00:34:49.650 \longrightarrow 00:34:51.442$ But for some context,

NOTE Confidence: 0.9165150825

 $00:34:51.442 \longrightarrow 00:34:53.682$ if you search the literature,

NOTE Confidence: 0.9165150825

 $00:34:53.690 \longrightarrow 00:34:55.565$ you'll find no shortage of

NOTE Confidence: 0.9165150825

 $00:34:55.565 \longrightarrow 00:34:57.065$ reviews and meta analysis.

NOTE Confidence: 0.9165150825

 $00:34:57.070 \longrightarrow 00:34:59.574$ Looking at epidemiologic associations

NOTE Confidence: 0.9165150825

 $00:34:59.574 \longrightarrow 00:35:02.704$ between different immune related conditions

NOTE Confidence: 0.9165150825

 $00:35:02.704 \longrightarrow 00:35:05.838$ and different psychiatric conditions.

NOTE Confidence: 0.9165150825

 $00:35:05.840 \longrightarrow 00:35:07.984$ What what I think is not clear yet

NOTE Confidence: 0.9165150825

 $00{:}35{:}07.984 \dashrightarrow 00{:}35{:}10.431$ is whether there are specificity in

NOTE Confidence: 0.9165150825

 $00:35:10.431 \longrightarrow 00:35:12.279$ these relationships across disorders,

NOTE Confidence: 0.9165150825

 $00:35:12.280 \longrightarrow 00:35:13.690$ or whether the patterns are really

NOTE Confidence: 0.9165150825

 $00:35:13.690 \longrightarrow 00:35:15.700$ more or less the same across disorders.

NOTE Confidence: 0.9165150825

 $00:35:15.700 \longrightarrow 00:35:17.776$ It's sort of an open question

NOTE Confidence: 0.9165150825

 $00:35:17.776 \longrightarrow 00:35:19.560$ and something that we're we're

00:35:19.560 --> 00:35:21.540 using genetic data to look at.

NOTE Confidence: 0.9165150825

 $00{:}35{:}21.540 \dashrightarrow 00{:}35{:}23.732$ So epidemiologists are interested

NOTE Confidence: 0.9165150825

 $00:35:23.732 \longrightarrow 00:35:25.924$ in explaining these associations,

NOTE Confidence: 0.9165150825

 $00:35:25.930 \longrightarrow 00:35:29.180$ and there's different possible explanations.

NOTE Confidence: 0.9165150825

 $00:35:29.180 \longrightarrow 00:35:31.404$ One thing that might be happening is there

NOTE Confidence: 0.9165150825

 $00:35:31.404 \longrightarrow 00:35:33.659$ could be a causal effect of 1 disorder,

NOTE Confidence: 0.9165150825

 $00:35:33.660 \longrightarrow 00:35:36.280$ increasing the risk for another.

NOTE Confidence: 0.9165150825

00:35:36.280 --> 00:35:36.984 Of course,

NOTE Confidence: 0.9165150825

 $00:35:36.984 \longrightarrow 00:35:39.096$ it's really hard to demonstrate causal

NOTE Confidence: 0.9165150825

 $00:35:39.096 \longrightarrow 00:35:41.371$ effects on a population scale, really.

NOTE Confidence: 0.9165150825

 $00{:}35{:}41.371 \dashrightarrow 00{:}35{:}43.326$ You need good experiments to

NOTE Confidence: 0.9165150825

 $00:35:43.326 \longrightarrow 00:35:44.890$ to demonstrate causal effects,

NOTE Confidence: 0.9165150825

 $00:35:44.890 \longrightarrow 00:35:48.070$ and that's just not possible here.

NOTE Confidence: 0.9165150825

 $00:35:48.070 \longrightarrow 00:35:48.970$ In general, you know,

NOTE Confidence: 0.9165150825

 $00:35:48.970 \longrightarrow 00:35:50.731$ so one hypothesis is that immune disorders

00:35:50.731 --> 00:35:52.199 are causing psychiatric disorders,

NOTE Confidence: 0.9165150825

 $00{:}35{:}52.200 \dashrightarrow 00{:}35{:}55.200$ and we have some basis to to say

NOTE Confidence: 0.9165150825

 $00:35:55.200 \longrightarrow 00:35:57.650$ that that might be possible.

NOTE Confidence: 0.9165150825

 $00:35:57.650 \longrightarrow 00:36:00.331$ So we know from clinical observations that

NOTE Confidence: 0.9165150825

 $00:36:00.331 \longrightarrow 00:36:02.699$ immune diseases that infiltrate the CNS,

NOTE Confidence: 0.9165150825

 $00:36:02.700 \longrightarrow 00:36:04.850$ so things like multiple sclerosis,

NOTE Confidence: 0.9165150825

 $00:36:04.850 \longrightarrow 00:36:09.135$ lupus vasculitis and also auto

NOTE Confidence: 0.9165150825

 $00:36:09.135 \longrightarrow 00:36:11.706$ antibody mediated encephalitis,

NOTE Confidence: 0.9165150825

 $00:36:11.710 \longrightarrow 00:36:13.426$ we see those with autoimmune disease,

NOTE Confidence: 0.9165150825

 $00{:}36{:}13.430 \dashrightarrow 00{:}36{:}15.630$ but also after infections like

NOTE Confidence: 0.9165150825

 $00{:}36{:}15.630 \dashrightarrow 00{:}36{:}17.390$ COVID and paraneoplastic syndrome,

NOTE Confidence: 0.9165150825

 $00:36:17.390 \longrightarrow 00:36:19.434$ so these can cause.

NOTE Confidence: 0.9165150825

 $00:36:19.434 \longrightarrow 00:36:20.456$ Neuropsychiatric syndromes,

NOTE Confidence: 0.9165150825

 $00:36:20.460 \longrightarrow 00:36:22.992$ but it's important to know that

NOTE Confidence: 0.9165150825

00:36:22.992 --> 00:36:25.084 they're relatively quite rare,

NOTE Confidence: 0.9165150825

 $00:36:25.084 \longrightarrow 00:36:28.816$ and also usually there are other

 $00:36:28.816 \longrightarrow 00:36:31.221$ neurological findings changes in mental

NOTE Confidence: 0.9165150825

 $00{:}36{:}31.221 \dashrightarrow 00{:}36{:}33.156$ changes in overall mental status,

NOTE Confidence: 0.9165150825

 $00:36:33.160 \longrightarrow 00:36:34.580$ fluctuating level of consciousness.

NOTE Confidence: 0.9165150825

 $00:36:34.580 \longrightarrow 00:36:37.100$ People are ill when they have these.

NOTE Confidence: 0.9165150825

 $00:36:37.100 \longrightarrow 00:36:38.084$ Oftentimes it's very,

NOTE Confidence: 0.9165150825

 $00:36:38.084 \longrightarrow 00:36:40.052$ very rare for them to present

NOTE Confidence: 0.9165150825

00:36:40.052 --> 00:36:41.968 with only psychiatric symptoms.

NOTE Confidence: 0.905106165263158

 $00{:}36{:}44.270 \dashrightarrow 00{:}36{:}46.400$ And then we know from experimental

NOTE Confidence: 0.905106165263158

 $00:36:46.400 \longrightarrow 00:36:49.552$ data in humans and in animals that if

NOTE Confidence: 0.905106165263158

 $00:36:49.552 \longrightarrow 00:36:51.632$ you administer an immune disturbance,

NOTE Confidence: 0.905106165263158

 $00:36:51.640 \longrightarrow 00:36:53.180$ if you administer cytokines,

NOTE Confidence: 0.905106165263158

 $00:36:53.180 \longrightarrow 00:36:55.732$ or if you administer bacterial endotoxin,

NOTE Confidence: 0.905106165263158

 $00{:}36{:}55.732 \dashrightarrow 00{:}36{:}58.262$ basically you can induce behaviors

NOTE Confidence: 0.905106165263158

 $00{:}36{:}58.262 \dashrightarrow 00{:}37{:}01.205$ in people and in animals that

NOTE Confidence: 0.905106165263158

 $00:37:01.205 \longrightarrow 00:37:03.005$ that are sickness behavior.

 $00:37:03.010 \longrightarrow 00:37:05.500$ And these are also accompanied by

NOTE Confidence: 0.905106165263158

 $00:37:05.500 \dashrightarrow 00:37:07.160$ emotional and cognitive changes,

NOTE Confidence: 0.905106165263158

 $00:37:07.160 \longrightarrow 00:37:10.758$ some of which seem to recapitulate features

NOTE Confidence: 0.905106165263158

 $00:37:10.758 \longrightarrow 00:37:13.527$ of depression depending on who you ask.

NOTE Confidence: 0.905106165263158

 $00:37:13.530 \longrightarrow 00:37:15.054$ And then from animal

NOTE Confidence: 0.905106165263158

 $00:37:15.054 \longrightarrow 00:37:16.578$ models of adult exposure,

NOTE Confidence: 0.905106165263158

 $00:37:16.580 \dashrightarrow 00:37:18.605$ but also gestational exposure to

NOTE Confidence: 0.905106165263158

00:37:18.605 --> 00:37:20.630 different types of immune disturbance,

NOTE Confidence: 0.905106165263158

 $00:37:20.630 \longrightarrow 00:37:22.670$ we know that there are

NOTE Confidence: 0.905106165263158

 $00:37:22.670 \longrightarrow 00:37:24.302$ neurodevelopmental effects and there

NOTE Confidence: 0.905106165263158

 $00:37:24.302 \longrightarrow 00:37:26.469$ are social behavioral effects.

NOTE Confidence: 0.905106165263158

 $00:37:26.470 \longrightarrow 00:37:29.338$ The figures that I'm showing here

NOTE Confidence: 0.905106165263158

 $00:37:29.338 \longrightarrow 00:37:33.487$ so that the top right is a pet FDG

NOTE Confidence: 0.905106165263158

00:37:33.487 --> 00:37:36.306 study looking at it was actually a

NOTE Confidence: 0.905106165263158

00:37:36.306 --> 00:37:38.610 a pet dopamine binding study looking

NOTE Confidence: 0.905106165263158

 $00:37:38.690 \longrightarrow 00:37:41.384$ at changes before and after the

 $00:37:41.384 \longrightarrow 00:37:43.680$ administration of of interferon alpha.

NOTE Confidence: 0.905106165263158

 $00:37:43.680 \longrightarrow 00:37:45.660$ In the context of treating hepatitis

NOTE Confidence: 0.905106165263158

00:37:45.660 --> 00:37:48.017 CI believe and the bottom is looking

NOTE Confidence: 0.905106165263158

00:37:48.017 --> 00:37:50.285 at newborn neurons in a mouse model.

NOTE Confidence: 0.792783256666667

 $00:37:53.150 \longrightarrow 00:37:55.964$ I another hypothesis is that psychiatric

NOTE Confidence: 0.792783256666667

 $00:37:55.964 \longrightarrow 00:37:58.476$ disorders are somehow causing immune

NOTE Confidence: 0.792783256666667

 $00:37:58.476 \longrightarrow 00:38:00.728$ disorders or contributing causally.

NOTE Confidence: 0.872716138333333

 $00{:}38{:}03.990 \dashrightarrow 00{:}38{:}06.660$ Clinical observation points to the idea

NOTE Confidence: 0.872716138333333

 $00:38:06.660 \longrightarrow 00:38:09.629$ that stress might be important here.

NOTE Confidence: 0.872716138333333

 $00:38:09.630 \dashrightarrow 00:38:12.666$ We know that acute psychological stress,

NOTE Confidence: 0.872716138333333

 $00:38:12.670 \longrightarrow 00:38:15.310$ a laboratory stressor like the tree

NOTE Confidence: 0.872716138333333

 $00{:}38{:}15.310 \dashrightarrow 00{:}38{:}17.696$ or social stressor produces autonomic

NOTE Confidence: 0.872716138333333

 $00{:}38{:}17.696 \dashrightarrow 00{:}38{:}19.828$ changes and neuroendocrine changes,

NOTE Confidence: 0.872716138333333

 $00:38:19.830 \longrightarrow 00:38:21.730$ and also measurable changes

NOTE Confidence: 0.872716138333333

00:38:21.730 --> 00:38:23.630 in peripheral immune markers.

00:38:23.630 --> 00:38:25.317 So when you stress a healthy participant,

NOTE Confidence: 0.872716138333333

 $00{:}38{:}25.320 \dashrightarrow 00{:}38{:}27.076$ there are transient increases

NOTE Confidence: 0.872716138333333

 $00{:}38{:}27.076 \dashrightarrow 00{:}38{:}30.330$ in I-1 beta IL 6 TNF alpha.

NOTE Confidence: 0.872716138333333

 $00:38:30.330 \longrightarrow 00:38:31.078$ What's really?

NOTE Confidence: 0.872716138333333

 $00:38:31.078 \longrightarrow 00:38:32.200$ I think interesting.

NOTE Confidence: 0.872716138333333

 $00:38:32.200 \longrightarrow 00:38:34.755$ That individual differences in the

NOTE Confidence: 0.8727161383333333

 $00:38:34.755 \longrightarrow 00:38:37.310$ subjective experience of that stressful

NOTE Confidence: 0.872716138333333

 $00:38:37.379 \longrightarrow 00:38:40.572$ experience actually are correlated

NOTE Confidence: 0.8727161383333333

 $00:38:40.572 \longrightarrow 00:38:42.940$ with different different aspects

NOTE Confidence: 0.872716138333333

 $00:38:42.940 \longrightarrow 00:38:45.040$ of the changes in the peripheral

NOTE Confidence: 0.8727161383333333

 $00{:}38{:}45.040 \dashrightarrow 00{:}38{:}47.159$ immune milieu and and the anti

NOTE Confidence: 0.872716138333333

 $00:38:47.159 \longrightarrow 00:38:48.523$ inflammatory cortisol and milieu.

NOTE Confidence: 0.911948807058823

 $00:38:50.900 \longrightarrow 00:38:54.169$ We also know from human studies that

NOTE Confidence: 0.911948807058823

 $00:38:54.169 \longrightarrow 00:38:56.764$ self reported stress or objective

NOTE Confidence: 0.911948807058823

 $00:38:56.764 \longrightarrow 00:38:59.991$ measures of deprivation or poverty are

NOTE Confidence: 0.911948807058823

 $00:38:59.991 \longrightarrow 00:39:02.817$ predictive of symptom severity in humans.

00:39:02.820 --> 00:39:05.256 For a number of immune related disorders,

NOTE Confidence: 0.911948807058823

 $00{:}39{:}05.260 \dashrightarrow 00{:}39{:}07.374$ and we know from animal models of

NOTE Confidence: 0.911948807058823

 $00:39:07.374 \longrightarrow 00:39:09.137$ immune related disorders that if you

NOTE Confidence: 0.911948807058823

00:39:09.137 --> 00:39:10.999 if you subject those animals to stress,

NOTE Confidence: 0.911948807058823

 $00:39:11.000 \longrightarrow 00:39:13.204$ it worsens the histological

NOTE Confidence: 0.911948807058823

 $00:39:13.204 \longrightarrow 00:39:14.857$ progression of disease.

NOTE Confidence: 0.911948807058823

00:39:14.860 --> 00:39:17.464 And that's probably best understood for

NOTE Confidence: 0.911948807058823

 $00:39:17.464 \longrightarrow 00:39:20.100$ as thmatic conditions and and inflammatory.

NOTE Confidence: 0.911948807058823

 $00:39:20.100 \longrightarrow 00:39:21.408$ Health conditions in

NOTE Confidence: 0.911948807058823

 $00{:}39{:}21.408 \dashrightarrow 00{:}39{:}22.280$ intermetallic conditions.

NOTE Confidence: 0.782401675

 $00:39:24.460 \longrightarrow 00:39:27.115$ And there's also the possibility

NOTE Confidence: 0.782401675

00:39:27.115 --> 00:39:28.708 of bidirectional effects.

NOTE Confidence: 0.782401675

00:39:28.710 --> 00:39:30.186 That's actually suggested by

NOTE Confidence: 0.782401675

 $00:39:30.186 \longrightarrow 00:39:32.031$ some of the longitudinal studies

NOTE Confidence: 0.782401675

 $00:39:32.031 \longrightarrow 00:39:33.628$ that look at the temporal.

 $00:39:33.630 \longrightarrow 00:39:35.430$ You know the temporal patterning

NOTE Confidence: 0.782401675

 $00:39:35.430 \longrightarrow 00:39:36.510$ of these associations,

NOTE Confidence: 0.782401675

00:39:36.510 --> 00:39:38.772 and then I wanted to mention

NOTE Confidence: 0.782401675

 $00:39:38.772 \longrightarrow 00:39:40.839$ here that there's a large

NOTE Confidence: 0.782401675

 $00:39:40.839 \longrightarrow 00:39:43.199$ body of literature looking at.

NOTE Confidence: 0.782401675

 $00{:}39{:}43.200 \dashrightarrow 00{:}39{:}44.960$ Psychiatric samples people as

NOTE Confidence: 0.782401675

00:39:44.960 --> 00:39:46.720 seen for psychiatric disorders,

NOTE Confidence: 0.782401675

 $00:39:46.720 \longrightarrow 00:39:50.500$ and they show group differences in a

NOTE Confidence: 0.782401675

 $00{:}39{:}50.500 \dashrightarrow 00{:}39{:}53.619$ variety of peripheral immune markers,

NOTE Confidence: 0.782401675

 $00:39:53.620 \longrightarrow 00:39:54.820$ so it's not really clear what

NOTE Confidence: 0.782401675

 $00:39:54.820 \longrightarrow 00:39:55.770$ the significance of that is.

NOTE Confidence: 0.782401675

 $00:39:55.770 \longrightarrow 00:39:57.107$ We're so we're sort of left with

NOTE Confidence: 0.782401675

00:39:57.107 --> 00:40:00.300 a chicken or egg problem there.

NOTE Confidence: 0.782401675

 $00:40:00.300 \longrightarrow 00:40:02.540$ There are other explanations too.

NOTE Confidence: 0.782401675

 $00:40:02.540 \longrightarrow 00:40:04.540$ Another possibility is that there's

NOTE Confidence: 0.782401675

00:40:04.540 --> 00:40:06.140 some shared underlying biology,

 $00:40:06.140 \longrightarrow 00:40:08.125$ so maybe there's a shared

NOTE Confidence: 0.782401675

00:40:08.125 --> 00:40:08.919 pathological mechanism,

NOTE Confidence: 0.782401675

 $00:40:08.920 \longrightarrow 00:40:10.905$ or there could also be

NOTE Confidence: 0.782401675

 $00:40:10.905 \longrightarrow 00:40:12.096$ correlated genetic mechanisms.

NOTE Confidence: 0.782401675

 $00:40:12.100 \longrightarrow 00:40:13.264$ So so different mechanisms,

NOTE Confidence: 0.782401675

 $00:40:13.264 \longrightarrow 00:40:15.350$ but they travel together on the genome

NOTE Confidence: 0.782401675

 $00:40:15.350 \longrightarrow 00:40:17.338$ because they're so close to each other.

NOTE Confidence: 0.782401675

 $00:40:17.340 \longrightarrow 00:40:19.305$ It's also possible that there's

NOTE Confidence: 0.782401675

 $00:40:19.305 \longrightarrow 00:40:21.005$ some external causal factors.

NOTE Confidence: 0.782401675

 $00:40:21.005 \longrightarrow 00:40:23.615$ Some third variable effects going on.

NOTE Confidence: 0.782401675

00:40:23.620 --> 00:40:25.126 If things that come to mind

NOTE Confidence: 0.782401675

00:40:25.126 --> 00:40:25.879 are environmental exposures,

NOTE Confidence: 0.782401675

 $00{:}40{:}25.880 \dashrightarrow 00{:}40{:}28.632$ social determinants of health.

NOTE Confidence: 0.782401675

 $00{:}40{:}28.632 \dashrightarrow 00{:}40{:}32.760$ And a related hypothesis is that.

NOTE Confidence: 0.782401675

 $00:40:32.760 \longrightarrow 00:40:35.483$ There is actually a true causal factor

00:40:35.483 --> 00:40:37.731 that's just correlated with one of

NOTE Confidence: 0.782401675

 $00{:}40{:}37.731 \dashrightarrow 00{:}40{:}39.759$ your phenotypes and causal for the

NOTE Confidence: 0.782401675

00:40:39.759 --> 00:40:42.268 second or mediation is possible,

NOTE Confidence: 0.782401675

 $00:40:42.268 \longrightarrow 00:40:46.780$ so one phenotype may cause may cause.

NOTE Confidence: 0.782401675

 $00:40:46.780 \longrightarrow 00:40:48.870$ As the actual causal phenotype

NOTE Confidence: 0.782401675

 $00:40:48.870 \longrightarrow 00:40:50.542$ leading to the outcome,

NOTE Confidence: 0.782401675

 $00:40:50.550 \longrightarrow 00:40:53.278$ and so when I think about this possibility,

NOTE Confidence: 0.782401675

 $00:40:53.280 \longrightarrow 00:40:55.305$ I think about things like

NOTE Confidence: 0.782401675

00:40:55.305 --> 00:40:56.520 health related behaviors.

NOTE Confidence: 0.782401675

00:40:56.520 --> 00:41:00.666 So substance use aspects of BMI,

NOTE Confidence: 0.782401675

 $00:41:00.670 \longrightarrow 00:41:02.383$ exercise, diet, sleep,

NOTE Confidence: 0.782401675

 $00:41:02.383 \longrightarrow 00:41:02.954$ duration,

NOTE Confidence: 0.782401675

 $00{:}41{:}02.954 \dashrightarrow 00{:}41{:}06.140$ but also social connectedness and then

NOTE Confidence: 0.782401675

 $00:41:06.140 \longrightarrow 00:41:08.390$ the social determinants of health.

NOTE Confidence: 0.782401675

 $00{:}41{:}08.390 \dashrightarrow 00{:}41{:}10.150$ And then individual differences in

NOTE Confidence: 0.782401675

 $00:41:10.150 \longrightarrow 00:41:11.206$ the stress response.

 $00:41:11.210 \longrightarrow 00:41:12.770$ Also possible mediator here.

NOTE Confidence: 0.858645745

00:41:15.980 --> 00:41:19.196 For completion, it's also possible that

NOTE Confidence: 0.858645745

 $00:41:19.200 \longrightarrow 00:41:20.910$ mediating or confounding effects are

NOTE Confidence: 0.858645745

 $00:41:20.910 \longrightarrow 00:41:22.870$ happening in the other direction too.

NOTE Confidence: 0.858645745

 $00:41:22.870 \longrightarrow 00:41:25.330$ So these are relevant for

NOTE Confidence: 0.858645745

 $00:41:25.330 \longrightarrow 00:41:26.806$ understanding the next.

NOTE Confidence: 0.858645745

 $00:41:26.810 \longrightarrow 00:41:29.290$ The next slide here.

NOTE Confidence: 0.858645745

 $00:41:29.290 \longrightarrow 00:41:32.843$ So what we did was we assessed genetic

NOTE Confidence: 0.858645745

 $00:41:32.843 \longrightarrow 00:41:34.100$ correlations between psychiatric

NOTE Confidence: 0.858645745

00:41:34.163 --> 00:41:35.947 and immune related disorders,

NOTE Confidence: 0.858645745

 $00{:}41{:}35.950 \dashrightarrow 00{:}41{:}38.050$ and we did this using the LD

NOTE Confidence: 0.858645745

 $00:41:38.050 \longrightarrow 00:41:38.950$ score regression method.

NOTE Confidence: 0.858645745

 $00:41:38.950 \longrightarrow 00:41:41.470$ So this method basically looks at all

NOTE Confidence: 0.858645745

 $00:41:41.470 \longrightarrow 00:41:44.091$ of the positions on the genome and

NOTE Confidence: 0.858645745

 $00:41:44.091 \longrightarrow 00:41:46.293$ looks at the association for disorder

00:41:46.363 --> 00:41:48.612 A&B and looks to see if they're

NOTE Confidence: 0.858645745

 $00:41:48.612 \longrightarrow 00:41:50.782$ significant and if they're in the same

NOTE Confidence: 0.858645745

 $00:41:50.782 \longrightarrow 00:41:52.327$ or opposite directions of effect.

NOTE Confidence: 0.858645745

00:41:52.330 --> 00:41:53.682 And it kind of.

NOTE Confidence: 0.858645745

 $00:41:53.682 \longrightarrow 00:41:55.502$ That summarizes that data

NOTE Confidence: 0.858645745

 $00:41:55.502 \longrightarrow 00:41:57.478$ across the whole genome.

NOTE Confidence: 0.858645745

 $00{:}41{:}57.480 \dashrightarrow 00{:}42{:}00.516$ To describe the proportion of shared

NOTE Confidence: 0.858645745

00:42:00.516 --> 00:42:02.540 heritability between the disorders,

NOTE Confidence: 0.858645745

 $00:42:02.540 \longrightarrow 00:42:04.990$ I know that's a lot.

NOTE Confidence: 0.858645745

00:42:04.990 --> 00:42:06.831 I'm going to kind of walk you

NOTE Confidence: 0.858645745

 $00{:}42{:}06.831 \longrightarrow 00{:}42{:}08.669$ through it because the slide is busy,

NOTE Confidence: 0.858645745

 $00:42:08.670 \longrightarrow 00:42:12.054$ so we found a predominance of

NOTE Confidence: 0.858645745

 $00:42:12.054 \longrightarrow 00:42:13.746$ positive genetic correlations.

NOTE Confidence: 0.858645745

 $00:42:13.750 \longrightarrow 00:42:15.780$ They were modest in strength.

NOTE Confidence: 0.858645745

 $00:42:15.780 \longrightarrow 00:42:18.390$ The correlation coefficients were between,

NOTE Confidence: 0.858645745

 $00:42:18.390 \longrightarrow 00:42:20.052$ you know, point.

 $00:42:20.052 \longrightarrow 00:42:20.606$ Basically,

NOTE Confidence: 0.858645745

 $00:42:20.606 \longrightarrow 00:42:24.410$.8 to point .20.

NOTE Confidence: 0.858645745

 $00:42:24.410 \longrightarrow 00:42:29.290$.08 I'm sorry to .2 and we saw kind

NOTE Confidence: 0.858645745

 $00{:}42{:}29.290 \longrightarrow 00{:}42{:}31.198$ of a clustering of correlations

NOTE Confidence: 0.858645745

 $00:42:31.198 \longrightarrow 00:42:33.214$ involving the inflammatory bowel

NOTE Confidence: 0.858645745

 $00:42:33.214 \longrightarrow 00:42:36.132$ disorders but also one of the

NOTE Confidence: 0.858645745

00:42:36.132 --> 00:42:37.788 biliary disorders and lupus,

NOTE Confidence: 0.858645745

 $00:42:37.790 \longrightarrow 00:42:40.130$ and those seem to be positively

NOTE Confidence: 0.858645745

 $00:42:40.130 \longrightarrow 00:42:41.690$ related to schizophrenia and

NOTE Confidence: 0.858645745

 $00:42:41.755 \longrightarrow 00:42:43.507 \mod \text{ and anxiety disorders}$.

NOTE Confidence: 0.858645745

00:42:43.510 --> 00:42:45.550 We also saw predominance of positive

NOTE Confidence: 0.858645745

 $00:42:45.550 \longrightarrow 00:42:47.750$ relationships for asthma and hypothyroidism,

NOTE Confidence: 0.858645745

 $00:42:47.750 \longrightarrow 00:42:50.080$ and those included a slightly

NOTE Confidence: 0.858645745

 $00:42:50.080 \longrightarrow 00:42:51.944$ different set of psychiatric

NOTE Confidence: 0.858645745

 $00:42:51.944 \longrightarrow 00:42:54.906$ phenotypes for some immune phenotypes.

00:42:54.906 --> 00:42:56.970 Like celiac disease and another

NOTE Confidence: 0.858645745

 $00{:}42{:}56.970 \dashrightarrow 00{:}42{:}59.130$ of the biliary diseases we saw

NOTE Confidence: 0.858645745

 $00:42:59.199 \longrightarrow 00:43:01.437$ sort of a mixed pattern across

NOTE Confidence: 0.858645745

 $00{:}43{:}01.437 \dashrightarrow 00{:}43{:}03.516$ disorders with some positive and

NOTE Confidence: 0.858645745

 $00:43:03.516 \longrightarrow 00:43:05.600$ some negative correlation across

NOTE Confidence: 0.858645745

00:43:05.600 --> 00:43:07.163 different psychiatric traits.

NOTE Confidence: 0.858645745

 $00:43:07.170 \longrightarrow 00:43:09.222$ And then some of the immune

NOTE Confidence: 0.858645745

 $00:43:09.222 \longrightarrow 00:43:11.698$ related disorders seem to have a

NOTE Confidence: 0.858645745

 $00{:}43{:}11.698 \dashrightarrow 00{:}43{:}13.249$ predominantly negative correlation

NOTE Confidence: 0.858645745

 $00:43:13.249 \longrightarrow 00:43:15.146$ across across the psychiatric traits.

NOTE Confidence: 0.858645745

00:43:15.146 --> 00:43:17.210 At least the ones that were

NOTE Confidence: 0.858645745

 $00:43:17.273 \longrightarrow 00:43:18.518$ available to measure.

NOTE Confidence: 0.858645745

 $00:43:18.520 \longrightarrow 00:43:20.190$ And.

NOTE Confidence: 0.858645745

 $00:43:20.190 \longrightarrow 00:43:22.218$ Another thing that we did here

NOTE Confidence: 0.858645745

00:43:22.218 --> 00:43:24.184 is we included genetic data for

NOTE Confidence: 0.858645745

 $00:43:24.184 \longrightarrow 00:43:25.654$ these additional risk factors that

 $00:43:25.654 \longrightarrow 00:43:27.710$ I showed you on the last slide.

NOTE Confidence: 0.858645745

 $00:43:27.710 \longrightarrow 00:43:29.250$ So the health related behaviors,

NOTE Confidence: 0.858645745

 $00:43:29.250 \longrightarrow 00:43:30.474$ the sleeping behaviors,

NOTE Confidence: 0.858645745

 $00:43:30.474 \longrightarrow 00:43:34.516$ and what we found was that many of

NOTE Confidence: 0.858645745

 $00:43:34.516 \longrightarrow 00:43:37.284$ these potentially confounding or

NOTE Confidence: 0.858645745

 $00:43:37.284 \longrightarrow 00:43:39.916$ mediating phenotypes show significant

NOTE Confidence: 0.858645745

00:43:39.916 --> 00:43:42.525 genetic correlations with both

NOTE Confidence: 0.858645745

 $00:43:42.525 \longrightarrow 00:43:44.749$ immune and psychiatric disorders.

NOTE Confidence: 0.858645745

 $00:43:44.750 \longrightarrow 00:43:46.898$ The effect sizes were stronger for

NOTE Confidence: 0.858645745

 $00{:}43{:}46.898 \dashrightarrow 00{:}43{:}48.850$ the psychiatric disorders on average.

NOTE Confidence: 0.944730125714286

00:43:52.240 --> 00:43:55.102 So the next thing we did was we wanted

NOTE Confidence: 0.944730125714286

 $00:43:55.102 \longrightarrow 00:43:58.174$ to use genetic data to try to answer

NOTE Confidence: 0.944730125714286

 $00{:}43{:}58.174 \dashrightarrow 00{:}44{:}00.846$ the question of whether whether a is

NOTE Confidence: 0.944730125714286

 $00{:}44{:}00.846 \to 00{:}44{:}03.442$ causing B or B is causing A and the

NOTE Confidence: 0.944730125714286

 $00:44:03.442 \longrightarrow 00:44:05.370$ way we did that was with a method

00:44:05.434 --> 00:44:07.258 called Mendelian randomization,

NOTE Confidence: 0.944730125714286

 $00{:}44{:}07.260 \dashrightarrow 00{:}44{:}09.290$ and it's a complex method.

NOTE Confidence: 0.944730125714286

 $00:44:09.290 \longrightarrow 00:44:11.829$ I can't explain all the details of it, but.

NOTE Confidence: 0.944730125714286

00:44:11.829 --> 00:44:15.341 The brief version is that if we assume

NOTE Confidence: 0.944730125714286

 $00:44:15.341 \longrightarrow 00:44:18.619$ that the causal loci for phenotype,

NOTE Confidence: 0.944730125714286

 $00:44:18.620 \longrightarrow 00:44:20.153$ if we assume that we know the

NOTE Confidence: 0.944730125714286

00:44:20.153 --> 00:44:21.680 cause of LOCI for phenotype A,

NOTE Confidence: 0.944730125714286

 $00:44:21.680 \longrightarrow 00:44:23.780$ we can then look at phenotype B.

NOTE Confidence: 0.944730125714286

 $00:44:23.780 \longrightarrow 00:44:25.520$ Those same positions on the genome,

NOTE Confidence: 0.944730125714286 00:44:25.520 --> 00:44:27.110 and we can.

NOTE Confidence: 0.944730125714286

 $00{:}44{:}27.110 \dashrightarrow 00{:}44{:}30.050$ We can ask, do those also show risk

NOTE Confidence: 0.944730125714286

 $00:44:30.050 \longrightarrow 00:44:32.660$ for free and type B in those positions?

NOTE Confidence: 0.944730125714286

00:44:32.660 --> 00:44:33.648 And if that's true,

NOTE Confidence: 0.944730125714286

 $00:44:33.648 \longrightarrow 00:44:35.130$ there might be a causal effect

NOTE Confidence: 0.944730125714286

 $00:44:35.180 \longrightarrow 00:44:36.068$ in that direction,

NOTE Confidence: 0.944730125714286

00:44:36.070 --> 00:44:37.820 and we can ask the opposite question.

00:44:37.820 --> 00:44:40.340 The causal loci for phenotype B?

NOTE Confidence: 0.944730125714286

 $00:44:40.340 \longrightarrow 00:44:41.870$ Do they show any evidence

NOTE Confidence: 0.944730125714286

 $00:44:41.870 \longrightarrow 00:44:43.400$ of effects in phenotype a?

NOTE Confidence: 0.944730125714286

 $00:44:43.400 \longrightarrow 00:44:46.376$ So it's a it's a more directional analysis.

NOTE Confidence: 0.944730125714286

 $00:44:46.380 \longrightarrow 00:44:48.326$ So for all of the 44 correlations

NOTE Confidence: 0.944730125714286

00:44:48.326 --> 00:44:50.317 I showed you in the last slide,

NOTE Confidence: 0.944730125714286

 $00:44:50.320 \longrightarrow 00:44:52.692$ we basically performed this

NOTE Confidence: 0.944730125714286

00:44:52.692 --> 00:44:53.878 analysis bidirectionally.

NOTE Confidence: 0.944730125714286

 $00:44:53.880 \longrightarrow 00:44:55.435$ So testing both directions of

NOTE Confidence: 0.944730125714286

 $00:44:55.435 \longrightarrow 00:44:57.843$ effect and we found a total of

NOTE Confidence: 0.944730125714286

 $00:44:57.843 \longrightarrow 00:44:59.427$ nine significant effects here,

NOTE Confidence: 0.944730125714286

 $00:44:59.430 \longrightarrow 00:45:01.302$ and again I'll walk you through

NOTE Confidence: 0.944730125714286

 $00{:}45{:}01.302 \dashrightarrow 00{:}45{:}03.238$ this slide because it's a bit busy.

NOTE Confidence: 0.944730125714286

 $00{:}45{:}03.240 \dashrightarrow 00{:}45{:}06.426$ So eight of these effects were

NOTE Confidence: 0.944730125714286

 $00:45:06.426 \longrightarrow 00:45:08.019$ effects of psychiatric.

 $00:45:08.020 \longrightarrow 00:45:09.660$ Patrick phenotypes on immune phenotypes

NOTE Confidence: 0.944730125714286

 $00:45:09.660 \longrightarrow 00:45:11.830$ and seven of them were positive,

NOTE Confidence: 0.944730125714286

 $00:45:11.830 \longrightarrow 00:45:15.071$ so the solid Red Arrows that you

NOTE Confidence: 0.944730125714286

00:45:15.071 --> 00:45:19.350 see on the figure are all pointing

NOTE Confidence: 0.944730125714286

 $00:45:19.350 \longrightarrow 00:45:22.190$ from various psychiatric phenotypes

NOTE Confidence: 0.944730125714286

 $00:45:22.190 \longrightarrow 00:45:25.540$ to various immune phenotypes.

NOTE Confidence: 0.944730125714286

00:45:25.540 --> 00:45:26.054 Specifically,

NOTE Confidence: 0.944730125714286

 $00:45:26.054 \longrightarrow 00:45:29.138$ we saw effects involving major depression,

NOTE Confidence: 0.944730125714286

 $00:45:29.140 \longrightarrow 00:45:29.685$ schizophrenia,

NOTE Confidence: 0.944730125714286

 $00:45:29.685 \longrightarrow 00:45:32.955$ and also this process disorder phenotype,

NOTE Confidence: 0.944730125714286

 $00{:}45{:}32.960 \dashrightarrow 00{:}45{:}35.390$ which is composed of I think,

NOTE Confidence: 0.944730125714286

00:45:35.390 --> 00:45:36.902 8 different psychiatric disorders.

NOTE Confidence: 0.944730125714286

 $00{:}45{:}36.902 \dashrightarrow 00{:}45{:}38.792$ But but depression and schizophrenia

NOTE Confidence: 0.944730125714286

 $00{:}45{:}38.792 \dashrightarrow 00{:}45{:}40.401$ figure heavily in those because

NOTE Confidence: 0.944730125714286

 $00:45:40.401 \longrightarrow 00:45:42.171$ they're some of the largest samples,

NOTE Confidence: 0.944730125714286

 $00:45:42.180 \longrightarrow 00:45:44.100$ so the effects are modest.

 $00:45:44.100 \longrightarrow 00:45:46.913$ The average odds ratio was 1.1.

NOTE Confidence: 0.944730125714286

 $00:45:46.913 \longrightarrow 00:45:49.384$ The largest effect that we saw was

NOTE Confidence: 0.944730125714286

 $00:45:49.384 \longrightarrow 00:45:51.520$ an effective depression on asthma

NOTE Confidence: 0.944730125714286

 $00:45:51.520 \longrightarrow 00:45:53.872$ and then the smallest effect was

NOTE Confidence: 0.944730125714286

 $00:45:53.872 \longrightarrow 00:45:55.710$ the cross disorder affect on.

NOTE Confidence: 0.944730125714286 00:45:55.710 --> 00:45:56.150 Asthma,

NOTE Confidence: 0.944730125714286

 $00:45:56.150 \longrightarrow 00:45:58.790$ so the way to understand these

NOTE Confidence: 0.944730125714286

 $00:45:58.790 \longrightarrow 00:46:02.060$ is the genetic liability for the

NOTE Confidence: 0.944730125714286

00:46:02.060 --> 00:46:04.258 psychiatric trait increases increases

NOTE Confidence: 0.944730125714286

 $00:46:04.258 \longrightarrow 00:46:06.226$ the genetic liability for the immune

NOTE Confidence: 0.944730125714286

 $00:46:06.226 \longrightarrow 00:46:08.040$ related trade and the window when

NOTE Confidence: 0.85049644

 $00:46:08.050 \longrightarrow 00:46:08.900$ you'd like to do it.

NOTE Confidence: 0.82325387555556

 $00:46:11.180 \longrightarrow 00:46:13.202$ One of these, one of these

NOTE Confidence: 0.82325387555556

00:46:13.202 --> 00:46:14.213 relationships was negative,

NOTE Confidence: 0.82325387555556

 $00:46:14.220 \longrightarrow 00:46:17.120$ so risk tolerance was associated

00:46:17.120 --> 00:46:19.440 with decreased genetic liability

NOTE Confidence: 0.82325387555556

 $00:46:19.440 \longrightarrow 00:46:22.630$ to allergic rhinitis for hay fever.

NOTE Confidence: 0.866894973529412

 $00:46:25.390 \longrightarrow 00:46:28.102$ And we had some effects that did not

NOTE Confidence: 0.866894973529412

 $00:46:28.102 \longrightarrow 00:46:30.607$ survive the sensitivity testing and

NOTE Confidence: 0.866894973529412

 $00:46:30.607 \longrightarrow 00:46:32.947$ then the multivariable adjustment.

NOTE Confidence: 0.866894973529412

 $00:46:32.950 \longrightarrow 00:46:35.729$ So you can see that sort of

NOTE Confidence: 0.866894973529412

 $00:46:35.730 \longrightarrow 00:46:38.058$ dashed blue line on the bottom.

NOTE Confidence: 0.866894973529412

 $00:46:38.060 \longrightarrow 00:46:39.660$ It's dashed because the relationship

NOTE Confidence: 0.866894973529412

 $00:46:39.660 \longrightarrow 00:46:41.575$ was interrupted and the things that

NOTE Confidence: 0.866894973529412

00:46:41.575 --> 00:46:43.381 interrupted it were all of the Gray

NOTE Confidence: 0.866894973529412

 $00:46:43.381 \longrightarrow 00:46:45.079$ phenotypes on the bottom that have

NOTE Confidence: 0.866894973529412

 $00:46:45.079 \longrightarrow 00:46:46.489$ little lines pointing toward it.

NOTE Confidence: 0.866894973529412

 $00:46:46.490 \longrightarrow 00:46:47.770$ So body mass index,

NOTE Confidence: 0.866894973529412

00:46:47.770 --> 00:46:49.370 cognitive processing all of those

NOTE Confidence: 0.866894973529412

 $00:46:49.370 \longrightarrow 00:46:51.408$ seem to attenuate the relationship,

NOTE Confidence: 0.866894973529412

 $00:46:51.410 \longrightarrow 00:46:53.225$ suggesting that the relationship could

 $00:46:53.225 \longrightarrow 00:46:55.510$ potentially be mediated by other factors.

NOTE Confidence: 0.866894973529412 00:46:55.810 --> 00:46:56.130 Right?

NOTE Confidence: 0.8953953225

00:46:57.260 --> 00:47:00.630 It's up to him. Can I ask people to

NOTE Confidence: 0.8953953225

00:47:00.630 --> 00:47:02.900 mute please? Other than that, thanks,

NOTE Confidence: 0.729539275

 $00:47:02.910 \longrightarrow 00:47:04.258$ yeah we had time.

NOTE Confidence: 0.23590999

 $00:47:06.450 \longrightarrow 00:47:09.534$ We we saw one we saw one effect

NOTE Confidence: 0.23590999

 $00:47:09.534 \longrightarrow 00:47:10.950$ of hypothyroidism on MDD.

NOTE Confidence: 0.23590999

 $00:47:10.950 \longrightarrow 00:47:13.884$ It was it was not significant

NOTE Confidence: 0.23590999

 $00:47:13.884 \longrightarrow 00:47:15.840$ after multivariable adjustment so.

NOTE Confidence: 0.23590999

 $00:47:15.840 \longrightarrow 00:47:17.060$ And so we didn't make.

NOTE Confidence: 0.23590999

 $00{:}47{:}17.060 \dashrightarrow 00{:}47{:}20.910$ We didn't consider it a robust basically.

NOTE Confidence: 0.23590999

 $00{:}47{:}20.910 \dashrightarrow 00{:}47{:}23.766$ So interpretation discussion.

NOTE Confidence: 0.23590999

 $00{:}47{:}23.766 \dashrightarrow 00{:}47{:}25.838$ Basically, these genetic analysis

NOTE Confidence: 0.23590999

 $00:47:25.838 \longrightarrow 00:47:28.395$ find stronger support for the

NOTE Confidence: 0.23590999

 $00:47:28.395 \longrightarrow 00:47:30.059$ idea that psychiatric disorders

 $00:47:30.059 \longrightarrow 00:47:31.723$ might be contributing causally

NOTE Confidence: 0.23590999

 $00:47:31.723 \longrightarrow 00:47:33.708$ to immune related disorders.

NOTE Confidence: 0.23590999

00:47:33.710 --> 00:47:34.810 We found relatively little

NOTE Confidence: 0.23590999

 $00:47:34.810 \longrightarrow 00:47:36.560$ evidence in the opposite direction.

NOTE Confidence: 0.85818719

 $00:47:38.870 \longrightarrow 00:47:40.856$ There are a number of limitations

NOTE Confidence: 0.85818719

00:47:40.856 --> 00:47:42.530 that I don't necessarily think

NOTE Confidence: 0.85818719

 $00:47:42.530 \longrightarrow 00:47:43.760$ we need to get into here,

NOTE Confidence: 0.85818719

 $00:47:43.760 \longrightarrow 00:47:46.646$ but in context, so there is.

NOTE Confidence: 0.85818719

 $00{:}47{:}46.650 \dashrightarrow 00{:}47{:}47.766$ There is epidemiologic

NOTE Confidence: 0.85818719

 $00{:}47{:}47.766 \dashrightarrow 00{:}47{:}49.626$ support for MDD and as thma.

NOTE Confidence: 0.85818719

 $00{:}47{:}49.630 \dashrightarrow 00{:}47{:}51.890$ There is less consistent epidemiologic

NOTE Confidence: 0.85818719

 $00:47:51.890 \longrightarrow 00:47:54.150$ support for schizophrenia and the

NOTE Confidence: 0.85818719

 $00:47:54.213 \longrightarrow 00:47:56.563$ inflammatory bowel disorders and there's

NOTE Confidence: 0.85818719

 $00:47:56.563 \longrightarrow 00:47:58.913$ really no literature linking risks

NOTE Confidence: 0.85818719

 $00:47:58.985 \longrightarrow 00:48:01.115$ risk taking behavior to hay fever.

NOTE Confidence: 0.85818719

 $00:48:01.120 \longrightarrow 00:48:03.648$ And we do replicate the results of some

00:48:03.648 --> 00:48:05.610 prior Mendelian randomization studies,

NOTE Confidence: 0.85818719

 $00:48:05.610 \longrightarrow 00:48:06.510$ which is encouraging.

NOTE Confidence: 0.768223305

 $00:48:08.660 \longrightarrow 00:48:12.356$ Our results do need to be reconciled with.

NOTE Confidence: 0.768223305

00:48:12.360 --> 00:48:14.551 A lot of epidemiologic studies that find

NOTE Confidence: 0.768223305

 $00:48:14.551 \longrightarrow 00:48:17.061$ that a prior immune disorder increases the

NOTE Confidence: 0.768223305

00:48:17.061 --> 00:48:19.920 risk for a subsequence like yatrik disorder,

NOTE Confidence: 0.768223305

 $00:48:19.920 \longrightarrow 00:48:21.840$ so the temporal patterning in these

NOTE Confidence: 0.768223305

 $00{:}48{:}21.840 \dashrightarrow 00{:}48{:}23.599$ studies is opposite what we what.

NOTE Confidence: 0.768223305

 $00:48:23.600 \longrightarrow 00:48:27.630$ What our data suggests so.

NOTE Confidence: 0.768223305

00:48:27.630 --> 00:48:29.286 I was trying to think about

NOTE Confidence: 0.768223305

 $00:48:29.286 \longrightarrow 00:48:30.390$ ways to explain that,

NOTE Confidence: 0.768223305

 $00:48:30.390 \longrightarrow 00:48:32.766$ and one of the the line of thinking

NOTE Confidence: 0.768223305

 $00{:}48{:}32.766 \dashrightarrow 00{:}48{:}35.267$ that I followed is that you know

NOTE Confidence: 0.768223305

 $00:48:35.267 \longrightarrow 00:48:37.102$ on the whole these immune,

NOTE Confidence: 0.768223305

00:48:37.110 --> 00:48:38.510 these immune related disorders,

00:48:38.510 --> 00:48:39.910 particularly like the inflammatory

NOTE Confidence: 0.768223305

 $00:48:39.910 \longrightarrow 00:48:40.610$ bowel disorders.

NOTE Confidence: 0.768223305

00:48:40.610 --> 00:48:43.490 They're rare, whereas psychiatric

NOTE Confidence: 0.768223305

 $00:48:43.490 \longrightarrow 00:48:46.370$ symptoms are relatively common.

NOTE Confidence: 0.768223305

 $00:48:46.370 \longrightarrow 00:48:49.079$ And it's possible that people who are

NOTE Confidence: 0.768223305

 $00:48:49.079 \longrightarrow 00:48:51.559$ being ascertained for an immune disorder

NOTE Confidence: 0.768223305

 $00:48:51.559 \longrightarrow 00:48:53.649$ have some amount of subclinical,

NOTE Confidence: 0.768223305

 $00:48:53.650 \longrightarrow 00:48:56.230$ undiagnosed psychiatric illness

NOTE Confidence: 0.768223305

 $00:48:56.230 \longrightarrow 00:48:59.201$ ahead beforehand that that is

NOTE Confidence: 0.768223305

00:48:59.201 --> 00:49:02.120 likely just based on the how common

NOTE Confidence: 0.768223305

 $00{:}49{:}02.213 \dashrightarrow 00{:}49{:}05.680$ psychiatric symptoms are.

NOTE Confidence: 0.768223305

 $00:49:05.680 \longrightarrow 00:49:08.151$ We also have to reconcile our work

NOTE Confidence: 0.768223305

 $00{:}49{:}08.151 \dashrightarrow 00{:}49{:}10.772$ with some some studies that look

NOTE Confidence: 0.768223305

 $00:49:10.772 \longrightarrow 00:49:12.684$ at cytokine concentrations and

NOTE Confidence: 0.768223305

00:49:12.684 --> 00:49:14.371 psychiatric disorders that seem

NOTE Confidence: 0.768223305

 $00:49:14.371 \longrightarrow 00:49:16.375$ to suggest the cytokines are are

 $00:49:16.380 \longrightarrow 00:49:18.188$ causal for psychiatric disorders.

NOTE Confidence: 0.81069451175

 $00:49:20.350 \longrightarrow 00:49:22.696$ And then future studies in this

NOTE Confidence: 0.81069451175

 $00:49:22.696 \longrightarrow 00:49:25.514$ in this area are going to need

NOTE Confidence: 0.81069451175

 $00:49:25.514 \longrightarrow 00:49:28.084$ to include these third variable

NOTE Confidence: 0.81069451175

 $00:49:28.084 \longrightarrow 00:49:30.140$ confounding or mediating phenotypes.

NOTE Confidence: 0.81069451175

00:49:30.140 --> 00:49:32.505 And because they exert outsize

NOTE Confidence: 0.81069451175

 $00:49:32.505 \longrightarrow 00:49:35.432$ effects on the data in the future,

NOTE Confidence: 0.81069451175

 $00:49:35.432 \longrightarrow 00:49:38.120$ I would love to integrate markers of HP,

NOTE Confidence: 0.81069451175

00:49:38.120 --> 00:49:40.890 a access functioning inflammatory markers,

NOTE Confidence: 0.81069451175

00:49:40.890 --> 00:49:41.814 immune cell counts,

NOTE Confidence: 0.81069451175

00:49:41.814 --> 00:49:44.410 there's GWAS data for these sorts of things.

NOTE Confidence: 0.81069451175

 $00:49:44.410 \longrightarrow 00:49:47.273$ And then of course, it's possible that

NOTE Confidence: 0.81069451175

 $00{:}49{:}47.273 \dashrightarrow 00{:}49{:}50.000$ larger data sets may actually yield.

NOTE Confidence: 0.81069451175

 $00:49:50.000 \longrightarrow 00:49:52.724$ May actually yield bidirectional effects or

NOTE Confidence: 0.81069451175

 $00:49:52.724 \longrightarrow 00:49:56.179$ effects of immune on psychiatric disorders.

 $00:49:56.180 \longrightarrow 00:49:57.212$ So that.

NOTE Confidence: 0.81069451175

 $00:49:57.212 \longrightarrow 00:50:00.980$ It's my study and thank you for listening.

NOTE Confidence: 0.81069451175

 $00:50:00.980 \dashrightarrow 00:50:04.051$ Thanks for the department and the

NOTE Confidence: 0.81069451175

 $00:50:04.051 \longrightarrow 00:50:07.406$ Lesbian Foundation and family and.

NOTE Confidence: 0.81069451175

 $00:50:07.410 \longrightarrow 00:50:09.780$ The award the panel who

NOTE Confidence: 0.81069451175

 $00:50:09.780 \longrightarrow 00:50:10.965$ made the decisions.

NOTE Confidence: 0.81069451175

00:50:10.970 --> 00:50:12.105 Yeah and thanks Renato and

NOTE Confidence: 0.81069451175

00:50:12.105 --> 00:50:13.558 my lab mates for getting you

NOTE Confidence: 0.81069451175

00:50:13.558 --> 00:50:14.626 know making this possible.

NOTE Confidence: 0.821605645

 $00:50:16.840 \longrightarrow 00:50:18.286$ Thank you Dan.

NOTE Confidence: 0.821605645

 $00:50:18.286 \longrightarrow 00:50:20.696$ Really interesting work with some

NOTE Confidence: 0.821605645

 $00:50:20.696 \longrightarrow 00:50:23.299$ some provocative and counterintuitive.

NOTE Confidence: 0.821605645

 $00:50:23.300 \longrightarrow 00:50:25.600$ Things to think about in

NOTE Confidence: 0.821605645

 $00:50:25.600 \longrightarrow 00:50:26.344$ the interest of time,

NOTE Confidence: 0.821605645

 $00:50:26.344 \longrightarrow 00:50:27.376$ we're going to move straight on.

NOTE Confidence: 0.821605645

 $00:50:27.380 \longrightarrow 00:50:28.250$ Can I ask you into?

 $00:50:31.040 \longrightarrow 00:50:34.340$ To close your smile. Yeah.

NOTE Confidence: 0.92525885

 $00:50:37.440 \longrightarrow 00:50:38.650$ And we will move on.

NOTE Confidence: 0.781692

 $00:50:42.020 \longrightarrow 00:50:44.924$ So our other Co Co 2nd place

NOTE Confidence: 0.781692

 $00:50:44.924 \longrightarrow 00:50:48.914$ winners are a pair of of cranes,

NOTE Confidence: 0.781692

 $00:50:48.914 \dashrightarrow 00:50:51.716$ Zach Harvey Neck and Terrell Holloway,

NOTE Confidence: 0.781692

 $00:50:51.720 \longrightarrow 00:50:54.035$ and they've asked me to

NOTE Confidence: 0.781692

 $00:50:54.035 \longrightarrow 00:50:55.424$ briefly introduce them.

NOTE Confidence: 0.781692

 $00{:}50{:}55.430 \dashrightarrow 00{:}50{:}57.746$ Terrell and Zach are both senior

NOTE Confidence: 0.781692

 $00:50:57.746 \longrightarrow 00:50:59.872$ residents in the Neuroscience Research

NOTE Confidence: 0.781692

 $00:50:59.872 \longrightarrow 00:51:01.726$ Training program and have really been

NOTE Confidence: 0.781692

00:51:01.726 --> 00:51:02.746 wonderful members of the program,

NOTE Confidence: 0.781692

 $00:51:02.750 \longrightarrow 00:51:04.660$ not only with the the

NOTE Confidence: 0.781692

 $00:51:04.660 \longrightarrow 00:51:06.188$ science that you'll hear,

NOTE Confidence: 0.781692

 $00:51:06.190 \longrightarrow 00:51:09.109$ but also as clinical leaders and also

NOTE Confidence: 0.781692

 $00:51:09.109 \longrightarrow 00:51:11.755$ as just wonderful citizens and and

 $00:51:11.755 \longrightarrow 00:51:13.770$ and leaders in the residency as a whole.

NOTE Confidence: 0.781692

00:51:13.770 --> 00:51:16.050 In the NTP in particular.

NOTE Confidence: 0.781692

 $00{:}51{:}16.050 \dashrightarrow 00{:}51{:}17.915$ Terrell did his bachelor's at

NOTE Confidence: 0.781692

00:51:17.915 --> 00:51:20.699 Brown and his MD at Mount Sinai

NOTE Confidence: 0.781692

 $00:51:20.700 \longrightarrow 00:51:21.910$ before and during his MD.

NOTE Confidence: 0.781692

00:51:21.910 --> 00:51:23.795 He did some really first

NOTE Confidence: 0.781692

00:51:23.795 --> 00:51:25.303 rate basic science work.

NOTE Confidence: 0.781692

00:51:25.310 --> 00:51:26.639 Looking at neurotransmitter

NOTE Confidence: 0.781692

 $00{:}51{:}26.639 \dashrightarrow 00{:}51{:}28.411$ mechanisms with with relevance

NOTE Confidence: 0.781692

00:51:28.411 --> 00:51:31.376 to some of our recent interests

NOTE Confidence: 0.781692

00:51:31.376 --> 00:51:32.948 in psychedelics interesting.

NOTE Confidence: 0.781692

 $00:51:32.950 \longrightarrow 00:51:34.094$ And then when he came here,

NOTE Confidence: 0.781692

 $00:51:34.094 \longrightarrow 00:51:36.070$ he shifted his focus to to what

NOTE Confidence: 0.781692

 $00{:}51{:}36.070 \dashrightarrow 00{:}51{:}38.000$ you're going to hear about today,

NOTE Confidence: 0.781692

 $00:51:38.000 \longrightarrow 00:51:40.046$ which is the focus of social

NOTE Confidence: 0.781692

 $00:51:40.046 \longrightarrow 00:51:42.293$ determinants of health and in particular

00:51:42.293 --> 00:51:44.343 race and racism on psychiatric

NOTE Confidence: 0.781692

 $00{:}51{:}44.343 \dashrightarrow 00{:}51{:}46.230$ outcomes and this combination.

NOTE Confidence: 0.781692

 $00:51:46.230 \longrightarrow 00:51:47.850$ Of a focus on social determinants

NOTE Confidence: 0.781692

00:51:47.850 --> 00:51:49.988 of health and a deep understanding

NOTE Confidence: 0.781692

 $00:51:49.988 \longrightarrow 00:51:51.976$ of underlying molecular mechanisms.

NOTE Confidence: 0.781692

 $00:51:51.980 \longrightarrow 00:51:53.762$ Puts Terrell in a really special

NOTE Confidence: 0.781692

00:51:53.762 --> 00:51:55.695 position to be able to do syncratic

NOTE Confidence: 0.781692

 $00{:}51{:}55.695 \dashrightarrow 00{:}51{:}57.670$ synergistic work with the type

NOTE Confidence: 0.781692

 $00:51:57.670 \longrightarrow 00:52:00.100$ you're going to hear about today.

NOTE Confidence: 0.781692

 $00{:}52{:}00.100 \dashrightarrow 00{:}52{:}03.046$ So I Carbanak did his bachelor's at Duke

NOTE Confidence: 0.781692

 $00:52:03.046 \longrightarrow 00:52:04.456$ in biomedical engineering and biology,

NOTE Confidence: 0.781692

 $00:52:04.460 \longrightarrow 00:52:07.754$ and then he did his PhD in at Michigan,

NOTE Confidence: 0.781692

 $00{:}52{:}07.760 \dashrightarrow 00{:}52{:}09.839$ where he studied the aging in the

NOTE Confidence: 0.781692

 $00:52:09.839 \longrightarrow 00:52:12.004$ lowly fruit fly chrysocolla and when

NOTE Confidence: 0.781692

 $00:52:12.004 \longrightarrow 00:52:14.180$ he came to the NTP here at Yale,

 $00:52:14.180 \longrightarrow 00:52:16.910$ he he kept that focus on aging.

NOTE Confidence: 0.781692

 $00{:}52{:}16.910 \dashrightarrow 00{:}52{:}18.793$ But switched to something we like to

NOTE Confidence: 0.781692

 $00:52:18.793 \longrightarrow 00:52:21.088$ think of as a little bit less slowly

NOTE Confidence: 0.781692

 $00:52:21.088 \longrightarrow 00:52:22.911$ that the human power human mechanisms

NOTE Confidence: 0.781692

 $00:52:22.911 \longrightarrow 00:52:24.927$ of aging and how they're influenced

NOTE Confidence: 0.781692

 $00:52:24.927 \longrightarrow 00:52:28.990$ by stress and psychiatric phenotypes.

NOTE Confidence: 0.781692

 $00:52:28.990 \longrightarrow 00:52:30.593$ I love that the two of them

NOTE Confidence: 0.781692

 $00.52:30.593 \longrightarrow 00.52:31.670$ Co submit this paper.

NOTE Confidence: 0.781692

 $00{:}52{:}31.670 \dashrightarrow 00{:}52{:}33.550$ I can't remember that happening

NOTE Confidence: 0.781692

 $00:52:33.550 \longrightarrow 00:52:35.430$ in the previous last minute.

NOTE Confidence: 0.781692

 $00:52:35.430 \longrightarrow 00:52:36.390$ Last minute words,

NOTE Confidence: 0.781692

 $00:52:36.390 \longrightarrow 00:52:39.047$ but it it speaks to this this strength

NOTE Confidence: 0.781692

 $00:52:39.047 \longrightarrow 00:52:41.476$ not only of their science but also

NOTE Confidence: 0.781692

00:52:41.476 --> 00:52:44.038 of their their collaborative spirit,

NOTE Confidence: 0.781692

 $00:52:44.040 \longrightarrow 00:52:46.704$ and it's great to see to see their

NOTE Confidence: 0.781692

 $00:52:46.704 \dashrightarrow 00:52:48.618$ work synergizing like it does here.

00:52:48.620 --> 00:52:50.306 I know they're going to acknowledge

NOTE Confidence: 0.781692

 $00{:}52{:}50.306 \rightarrow 00{:}52{:}51.720$ their mentors during the talk,

NOTE Confidence: 0.781692

 $00:52:51.720 \longrightarrow 00:52:53.440$ but I want to give a shout out

NOTE Confidence: 0.781692

 $00:52:53.440 \longrightarrow 00:52:54.290$ to Derrick Gordon.

NOTE Confidence: 0.781692

 $00:52:54.290 \longrightarrow 00:52:56.628$ Would you just Sinha and could shoot?

NOTE Confidence: 0.781692

 $00.52.56.630 \longrightarrow 00.52.57.713$ Metric this one.

NOTE Confidence: 0.781692

 $00:52:57.713 \longrightarrow 00:52:59.879$ Terrell is that take you awhile.

NOTE Confidence: 0.877216765714286

 $00:53:00.970 \longrightarrow 00:53:02.538$ Thank you very much for the introduction,

NOTE Confidence: 0.877216765714286

 $00:53:02.540 \longrightarrow 00:53:05.648$ Chris. And thank you all for

NOTE Confidence: 0.877216765714286

 $00{:}53{:}05.650 \dashrightarrow 00{:}53{:}07.350$ taking part in this presentation.

NOTE Confidence: 0.877216765714286

 $00{:}53{:}07.350 \dashrightarrow 00{:}53{:}09.842$ Zach and I will be alternating the

NOTE Confidence: 0.877216765714286

 $00:53:09.842 \longrightarrow 00:53:11.932$ slides throughout and so you know just

NOTE Confidence: 0.877216765714286

 $00{:}53{:}11.932 \dashrightarrow 00{:}53{:}14.030$ as a means of just giving you a sense of

NOTE Confidence: 0.877216765714286

00:53:14.030 --> 00:53:15.750 how this is going to go back and forth.

NOTE Confidence: 0.877216765714286

 $00:53:15.750 \longrightarrow 00:53:16.359$ Just presenting that,

00:53:16.359 --> 00:53:19.640 could you go to the next slide, please?

NOTE Confidence: 0.877216765714286

 $00{:}53{:}19.640 \dashrightarrow 00{:}53{:}22.304$ We have no disclosures to to share in

NOTE Confidence: 0.877216765714286

 $00:53:22.304 \longrightarrow 00:53:24.783$ regards to any conflicts of interest and

NOTE Confidence: 0.877216765714286

 $00:53:24.783 \longrightarrow 00:53:28.095$ and just as it means of like how big

NOTE Confidence: 0.877216765714286

 $00:53:28.095 \longrightarrow 00:53:30.345$ this slide this this presentation was,

NOTE Confidence: 0.877216765714286

 $00{:}53{:}30.350 \dashrightarrow 00{:}53{:}31.512$ we had to curtail it a little

NOTE Confidence: 0.877216765714286

 $00:53:31.512 \longrightarrow 00:53:32.739$ bit just to accommodate time.

NOTE Confidence: 0.877216765714286

 $00:53:32.740 \longrightarrow 00:53:35.150$ And so to start off.

NOTE Confidence: 0.877216765714286

 $00:53:35.150 \longrightarrow 00:53:36.218$ As we all know,

NOTE Confidence: 0.877216765714286

00:53:36.218 --> 00:53:37.820 there's been a lot of epidemiologic

NOTE Confidence: 0.877216765714286

 $00{:}53{:}37.878 \dashrightarrow 00{:}53{:}39.633$ data that has demonstrated this

NOTE Confidence: 0.877216765714286

 $00:53:39.633 \longrightarrow 00:53:41.037$ long standing mortality gap

NOTE Confidence: 0.877216765714286

 $00:53:41.037 \longrightarrow 00:53:42.810$ between black and white Americans.

NOTE Confidence: 0.877216765714286

 $00:53:42.810 \longrightarrow 00:53:44.746$ As we can see on the slide on

NOTE Confidence: 0.877216765714286

 $00:53:44.746 \longrightarrow 00:53:46.868$ the the graph below to the left,

NOTE Confidence: 0.877216765714286

 $00:53:46.870 \longrightarrow 00:53:49.108$ we see that though that there's

 $00:53:49.108 \longrightarrow 00:53:50.227$ been a decreasing.

NOTE Confidence: 0.877216765714286

00:53:50.230 --> 00:53:51.810 Uh, decreasing age and mortality,

NOTE Confidence: 0.877216765714286

 $00:53:51.810 \longrightarrow 00:53:54.336$ or decreasing deaths per 100,000 over

NOTE Confidence: 0.877216765714286

 $00:53:54.336 \longrightarrow 00:53:57.508$ the years that have gone on since 2014.

NOTE Confidence: 0.877216765714286

 $00{:}53{:}57.510 \dashrightarrow 00{:}53{:}59.407$ But we still see is a persistent

NOTE Confidence: 0.877216765714286

00:53:59.407 --> 00:54:01.009 gap between the life expectancy

NOTE Confidence: 0.877216765714286

 $00:54:01.009 \longrightarrow 00:54:02.824$ of black and white Americans.

NOTE Confidence: 0.877216765714286

 $00{:}54{:}02.830 \dashrightarrow 00{:}54{:}04.800$ Similarly looking to their right

NOTE Confidence: 0.877216765714286

 $00:54:04.800 \longrightarrow 00:54:07.410$ and the CDC as reported in 2020,

NOTE Confidence: 0.877216765714286

 $00:54:07.410 \longrightarrow 00:54:09.530$ this health life expectancy

NOTE Confidence: 0.877216765714286

 $00:54:09.530 \longrightarrow 00:54:11.242$ gap has actually persisted.

NOTE Confidence: 0.877216765714286

 $00:54:11.242 \longrightarrow 00:54:13.524$ And also in light of the the

NOTE Confidence: 0.877216765714286

 $00{:}54{:}13.524 \dashrightarrow 00{:}54{:}15.229$ pandemic has actually increased.

NOTE Confidence: 0.877216765714286 00:54:15.230 --> 00:54:17.270 And so. NOTE Confidence: 0.877216765714286

 $00:54:17.270 \longrightarrow 00:54:20.078$ Given the fact that there have also been

 $00:54:20.078 \longrightarrow 00:54:22.056$ external factors such as differential

NOTE Confidence: 0.877216765714286

 $00:54:22.056 \longrightarrow 00:54:24.480$ access to care and institutional bias,

NOTE Confidence: 0.877216765714286

00:54:24.480 --> 00:54:25.926 that may inform some of these,

NOTE Confidence: 0.877216765714286

 $00:54:25.930 \longrightarrow 00:54:27.505$ these disparities growing

NOTE Confidence: 0.877216765714286

00:54:27.505 --> 00:54:30.130 literature has shown that increase,

NOTE Confidence: 0.877216765714286 00:54:30.130 --> 00:54:30.605 increasingly, NOTE Confidence: 0.877216765714286

 $00:54:30.605 \longrightarrow 00:54:33.930$ that biomarkers of health also are different,

NOTE Confidence: 0.877216765714286

 $00:54:33.930 \longrightarrow 00:54:35.970$ and these two different populations,

NOTE Confidence: 0.877216765714286

00:54:35.970 --> 00:54:38.946 just to name a few as.

NOTE Confidence: 0.877216765714286

 $00:54:38.950 \longrightarrow 00:54:41.530$ Doctor Tylee House was able to

NOTE Confidence: 0.877216765714286

 $00{:}54{:}41.530 \dashrightarrow 00{:}54{:}43.254$ introduce earlier sciatic kinds of

NOTE Confidence: 0.877216765714286

 $00:54:43.254 \longrightarrow 00:54:44.406$ health and signatory cytokines.

NOTE Confidence: 0.877216765714286

 $00:54:44.410 \longrightarrow 00:54:46.447$ In particular have been shown to be

NOTE Confidence: 0.877216765714286

 $00:54:46.447 \longrightarrow 00:54:48.469$ increased in African American populations.

NOTE Confidence: 0.877216765714286

 $00:54:48.470 \longrightarrow 00:54:50.828$ In addition to.

NOTE Confidence: 0.877216765714286

 $00{:}54{:}50.830 \dashrightarrow 00{:}54{:}52.610$ Increases and changes in.

 $00:54:55.430 \longrightarrow 00:54:57.716$ Methylation and also in telomere length

NOTE Confidence: 0.762682601333333

 $00{:}54{:}57.716 \dashrightarrow 00{:}55{:}00.594$ in regards to how short and telling

NOTE Confidence: 0.762682601333333

00:55:00.594 --> 00:55:03.162 your life like in African American

NOTE Confidence: 0.762682601333333

 $00:55:03.162 \longrightarrow 00:55:05.585$ populations and so in trying to understand

NOTE Confidence: 0.762682601333333

 $00:55:05.585 \longrightarrow 00:55:07.750$ what it is that's driving this,

NOTE Confidence: 0.762682601333333

 $00:55:07.750 \longrightarrow 00:55:09.070$ this mortality gap.

NOTE Confidence: 0.762682601333333

 $00:55:09.070 \longrightarrow 00:55:10.958$ One of the ways we're that we were

NOTE Confidence: 0.762682601333333

 $00{:}55{:}10.958 \dashrightarrow 00{:}55{:}12.750$ looking at what we were interested in

NOTE Confidence: 0.762682601333333

 $00:55:12.750 \longrightarrow 00:55:14.353$ looking to see is how epigenetically

NOTE Confidence: 0.762682601333333

 $00:55:14.353 \longrightarrow 00:55:16.341$ if this will also pan out to

NOTE Confidence: 0.762682601333333

 $00:55:16.341 \longrightarrow 00:55:18.365$ show these differences and may

NOTE Confidence: 0.762682601333333

 $00:55:18.365 \longrightarrow 00:55:20.305$ inform this mortality gap.

NOTE Confidence: 0.762682601333333

 $00{:}55{:}20.310 --> 00{:}55{:}21.090$ Next slide please.

NOTE Confidence: 0.50405788

 $00:55:22.940 \longrightarrow 00:55:26.100$ Estrel so one way we can conceptualize

NOTE Confidence: 0.50405788

 $00:55:26.100 \longrightarrow 00:55:28.580$ these health disparities is is

 $00:55:28.580 \longrightarrow 00:55:30.564$ a accelerated biological aging.

NOTE Confidence: 0.50405788

 $00{:}55{:}30.570 \dashrightarrow 00{:}55{:}32.266$ Because black individuals in

NOTE Confidence: 0.50405788

00:55:32.266 --> 00:55:34.156 America might be dying earlier

NOTE Confidence: 0.50405788

 $00{:}55{:}34.156 \dashrightarrow 00{:}55{:}35.750$ because they're aging faster.

NOTE Confidence: 0.50405788

 $00:55:35.750 \longrightarrow 00:55:37.820$ Prior work has shown that that

NOTE Confidence: 0.50405788

 $00:55:37.820 \longrightarrow 00:55:39.664$ life experiences like trauma and

NOTE Confidence: 0.50405788

 $00:55:39.664 \longrightarrow 00:55:42.052$ life lifetime adversity can lead to

NOTE Confidence: 0.50405788

 $00:55:42.052 \longrightarrow 00:55:43.944$ accelerated biological aging and and

NOTE Confidence: 0.50405788

 $00{:}55{:}43.944 \dashrightarrow 00{:}55{:}46.026$ we know that black Americans face

NOTE Confidence: 0.50405788

 $00:55:46.026 \longrightarrow 00:55:48.109$ higher levels of stress and trauma.

NOTE Confidence: 0.50405788

 $00:55:48.110 \longrightarrow 00:55:49.958$ Recent development developments and

NOTE Confidence: 0.50405788

00:55:49.958 --> 00:55:52.730 epigenetics have led to epigenetic clocks,

NOTE Confidence: 0.50405788

00:55:52.730 --> 00:55:54.296 one of which is called brimmage,

NOTE Confidence: 0.50405788

 $00:55:54.300 \longrightarrow 00:55:55.630$ that we'll be using here,

NOTE Confidence: 0.50405788

 $00:55:55.630 \longrightarrow 00:55:57.826$ which are sets of epigenetic markers

NOTE Confidence: 0.50405788

 $00{:}55{:}57.826 \dashrightarrow 00{:}56{:}00.076$ that have really been trained to

 $00:56:00.076 \longrightarrow 00:56:01.876$ predict aging related outcomes and

NOTE Confidence: 0.50405788

 $00{:}56{:}01.876 \dashrightarrow 00{:}56{:}04.297$ allow us to estimate a biological

NOTE Confidence: 0.50405788

 $00:56:04.297 \longrightarrow 00:56:06.427$ age even in healthy populations.

NOTE Confidence: 0.50405788

 $00:56:06.430 \longrightarrow 00:56:06.850$ Next slide.

NOTE Confidence: 0.84185266

 $00:56:08.690 \longrightarrow 00:56:10.510$ So taking both of those things

NOTE Confidence: 0.84185266

 $00:56:10.510 \longrightarrow 00:56:12.070$ together and we were interested

NOTE Confidence: 0.833240545789474

00:56:12.123 --> 00:56:14.445 in in a Community example here in New Haven,

NOTE Confidence: 0.833240545789474

 $00:56:14.450 \longrightarrow 00:56:17.136$ in analyzing to see whether or not there

NOTE Confidence: 0.833240545789474

 $00{:}56{:}17.136 \dashrightarrow 00{:}56{:}19.278$ was any difference in this genetic clock

NOTE Confidence: 0.833240545789474

00:56:19.278 --> 00:56:20.968 between black and white Americans,

NOTE Confidence: 0.833240545789474

 $00:56:20.970 \longrightarrow 00:56:23.562$ and also what potential factors may

NOTE Confidence: 0.833240545789474

 $00:56:23.562 \longrightarrow 00:56:26.149$ inform this difference in aging rate.

NOTE Confidence: 0.833240545789474

 $00{:}56{:}26.150 \dashrightarrow 00{:}56{:}28.130$ And so if you could go to the next slide,

NOTE Confidence: 0.833240545789474

 $00{:}56{:}28.130 \dashrightarrow 00{:}56{:}29.918$ please we actually through

NOTE Confidence: 0.833240545789474

 $00:56:29.918 \longrightarrow 00:56:31.706$ the yellow stress Center,

00:56:31.710 --> 00:56:36.746 had recruited a cohort of about 400 healthy

NOTE Confidence: 0.833240545789474

 $00:56:36.746 \longrightarrow 00:56:39.686$ volunteers and essentially had assessed.

NOTE Confidence: 0.833240545789474

 $00:56:39.690 \longrightarrow 00:56:41.582$ Various psychological managers through

NOTE Confidence: 0.833240545789474

 $00:56:41.582 \longrightarrow 00:56:43.947$ the cumulative adversity inventory which

NOTE Confidence: 0.833240545789474

 $00:56:43.947 \longrightarrow 00:56:47.420$ is 140 interview survey that assessed

NOTE Confidence: 0.833240545789474

00:56:47.420 --> 00:56:50.420 traumatic life offense chronic stress,

NOTE Confidence: 0.833240545789474

 $00:56:50.420 \longrightarrow 00:56:52.695$ major life events and recent life events.

NOTE Confidence: 0.833240545789474

 $00:56:52.700 \longrightarrow 00:56:54.458$ In addition, that's not shown here.

NOTE Confidence: 0.833240545789474

 $00:56:54.460 \longrightarrow 00:56:56.884$ We had assessed health through self

NOTE Confidence: 0.833240545789474

00:56:56.884 --> 00:56:59.000 reported Cornell Medical Index survey,

NOTE Confidence: 0.833240545789474

 $00{:}56{:}59.000 \dashrightarrow 00{:}57{:}01.712$ which is another 195 battery question

NOTE Confidence: 0.833240545789474

 $00:57:01.712 \longrightarrow 00:57:04.460$ assessing their health in addition to.

NOTE Confidence: 0.833240545789474

 $00:57:04.460 \longrightarrow 00:57:05.828$ Collecting biological samples,

NOTE Confidence: 0.833240545789474

 $00:57:05.828 \longrightarrow 00:57:06.740$ whole blood,

NOTE Confidence: 0.833240545789474

 $00:57:06.740 \longrightarrow 00:57:09.524$ from which we we extracted

NOTE Confidence: 0.833240545789474

 $00:57:09.524 \longrightarrow 00:57:11.727$ DNA and also cortisol,

 $00:57:11.727 \longrightarrow 00:57:16.569$ ACTH and other biomarkers of health.

NOTE Confidence: 0.833240545789474

 $00:57:16.570 \longrightarrow 00:57:17.758$ Next slide, please.

NOTE Confidence: 0.851453605

00:57:19.340 --> 00:57:21.748 And so, like Trell was saying,

NOTE Confidence: 0.851453605

 $00:57:21.748 \longrightarrow 00:57:23.140$ we wanted to do this in

NOTE Confidence: 0.821557089333333

 $00.57:23.190 \longrightarrow 00.57:24.300$ a in a healthy cohort,

NOTE Confidence: 0.821557089333333

 $00:57:24.300 \longrightarrow 00:57:27.037$ we this population has no chronic diseases,

NOTE Confidence: 0.821557089333333

 $00:57:27.040 \longrightarrow 00:57:30.844$ no substance use outside of nicotine or no

NOTE Confidence: 0.821557089333333

 $00:57:30.844 \longrightarrow 00:57:33.016$ substance use disorders outside of nicotine.

NOTE Confidence: 0.821557089333333

 $00:57:33.020 \longrightarrow 00:57:35.198$ They're not on any prescription medications.

NOTE Confidence: 0.821557089333333

 $00:57:35.200 \longrightarrow 00:57:37.657$ We did limit our analysis to only

NOTE Confidence: 0.821557089333333

 $00:57:37.657 \longrightarrow 00:57:40.261$ individuals who identified as black or white

NOTE Confidence: 0.821557089333333

 $00:57:40.261 \longrightarrow 00:57:42.116$ through the sample size considerations,

NOTE Confidence: 0.821557089333333

 $00{:}57{:}42.120 \dashrightarrow 00{:}57{:}44.094$ and these groups did have some

NOTE Confidence: 0.821557089333333

 $00:57:44.094 \longrightarrow 00:57:45.710$ notable differences in in BMI,

NOTE Confidence: 0.821557089333333

00:57:45.710 --> 00:57:48.218 alcohol use, and years of education,

 $00:57:48.220 \longrightarrow 00:57:49.990$ but they were similar in gender.

NOTE Confidence: 0.821557089333333

 $00{:}57{:}49.990 \dashrightarrow 00{:}57{:}51.550$ Age, income and current health

NOTE Confidence: 0.821557089333333

 $00{:}57{:}51.550 \dashrightarrow 00{:}57{:}53.975$ status and I do want to emphasize

NOTE Confidence: 0.821557089333333

 $00:57:53.975 \longrightarrow 00:57:55.567$ that health status aspect.

NOTE Confidence: 0.821557089333333

 $00:57:55.570 \longrightarrow 00:57:56.266$ Uh, you know.

NOTE Confidence: 0.821557089333333

 $00{:}57{:}56.266 \dashrightarrow 00{:}57{:}57.890$ The Cornell Medical Index is is a

NOTE Confidence: 0.821557089333333

 $00:57:57.941 \longrightarrow 00:57:59.645$ very comprehensive questionnaire of

NOTE Confidence: 0.821557089333333

00:57:59.645 --> 00:58:01.349 medical and psychiatric symptoms,

NOTE Confidence: 0.821557089333333

 $00{:}58{:}01.350 \dashrightarrow 00{:}58{:}03.155$ and we saw no significant

NOTE Confidence: 0.821557089333333

 $00:58:03.155 \longrightarrow 00:58:04.960$ difference between black and white

NOTE Confidence: 0.821557089333333

 $00{:}58{:}05.023 \dashrightarrow 00{:}58{:}06.887$ participants on these measures.

NOTE Confidence: 0.821557089333333 00:58:06.890 --> 00:58:07.370 Next slide.

NOTE Confidence: 0.9011665275

 $00:58:08.890 \longrightarrow 00:58:10.780$ So when we look at the psychological

NOTE Confidence: 0.9011665275

 $00.58:10.780 \longrightarrow 00.58:12.019$ measures and compare the two,

NOTE Confidence: 0.9011665275

 $00:58:12.020 \longrightarrow 00:58:14.407$ what we find is that black participants

NOTE Confidence: 0.9011665275

 $00:58:14.407 \longrightarrow 00:58:17.010$ report more stress and more trauma in

 $00:58:17.010 \longrightarrow 00:58:18.905$ comparison to their white counterparts.

NOTE Confidence: 0.9011665275

 $00:58:18.910 \longrightarrow 00:58:20.104$ Next slide, please.

NOTE Confidence: 0.9011665275

00:58:20.104 --> 00:58:22.094 And when we then correlate

NOTE Confidence: 0.9011665275

 $00:58:22.094 \longrightarrow 00:58:24.389$ that with the biological data,

NOTE Confidence: 0.9011665275

 $00:58:24.390 \dashrightarrow 00:58:26.568$ what we see in the left side is that

NOTE Confidence: 0.9011665275

 $00:58:26.568 \longrightarrow 00:58:29.107$ what we know that that grim age is

NOTE Confidence: 0.9011665275

 $00:58:29.107 \longrightarrow 00:58:30.853$ correlated with advanced health in

NOTE Confidence: 0.9011665275

00:58:30.853 --> 00:58:32.668 both black and white populations.

NOTE Confidence: 0.9011665275

 $00.58:32.670 \longrightarrow 00.58:34.758$ But when we are actually doing

NOTE Confidence: 0.9011665275

 $00:58:34.758 \longrightarrow 00:58:36.530$ the linear correlation of this,

NOTE Confidence: 0.9011665275

 $00:58:36.530 \longrightarrow 00:58:38.895$ we find that actually race

NOTE Confidence: 0.9011665275

 $00:58:38.895 \longrightarrow 00:58:41.920$ accounts for about a one point.

NOTE Confidence: 0.9011665275

 $00{:}58{:}41.920 \dashrightarrow 00{:}58{:}44.056$ UH-75 year different or one point

NOTE Confidence: 0.9011665275

00:58:44.060 --> 00:58:48.002 scuse me my side is acting up about

NOTE Confidence: 0.9011665275

00:58:48.002 --> 00:58:49.788 a 1.73 year difference between

 $00:58:49.788 \longrightarrow 00:58:51.096$ black and white participants.

NOTE Confidence: 0.9011665275

 $00:58:51.100 \longrightarrow 00:58:53.020$ Again echoing Zach's point of

NOTE Confidence: 0.9011665275

00:58:53.020 --> 00:58:55.787 this being a pretty much like a

NOTE Confidence: 0.9011665275

 $00:58:55.787 \longrightarrow 00:58:57.717$ 30 year old healthy population.

NOTE Confidence: 0.9011665275

00:58:57.720 --> 00:58:59.440 This is a significant difference

NOTE Confidence: 0.9011665275

 $00:58:59.440 \longrightarrow 00:59:00.816$ between the two groups.

NOTE Confidence: 0.9011665275

 $00:59:00.820 \longrightarrow 00:59:01.912$ Next slide please.

NOTE Confidence: 0.9011665275

 $00:59:01.912 \longrightarrow 00:59:05.040$ And so similarly when we look at trauma,

NOTE Confidence: 0.9011665275

 $00:59:05.040 \longrightarrow 00:59:07.479$ what we find is a similar thing of that.

NOTE Confidence: 0.9011665275

00:59:07.480 --> 00:59:09.070 Essentially black Americans

NOTE Confidence: 0.9011665275

 $00:59:09.070 \longrightarrow 00:59:11.190$ also report more trauma.

NOTE Confidence: 0.9011665275

 $00:59:11.190 \longrightarrow 00:59:12.620$ And when we subcategorize the

NOTE Confidence: 0.9011665275

00:59:12.620 --> 00:59:15.070 trauma by type next slide, please.

NOTE Confidence: 0.9011665275

 $00:59:15.070 \longrightarrow 00:59:17.790$ What we find is that there is an increase on.

NOTE Confidence: 0.9011665275

00:59:17.790 --> 00:59:19.338 There's an increase in all four

NOTE Confidence: 0.9011665275

 $00{:}59{:}19.338 \dashrightarrow 00{:}59{:}20.370$ of these different categories.

 $00:59:20.370 \longrightarrow 00:59:23.502$ Assault of violence being 1D for

NOTE Confidence: 0.9011665275

 $00{:}59{:}23.502 \dashrightarrow 00{:}59{:}25.679$ the second one being other injury or

NOTE Confidence: 0.9011665275

 $00{:}59{:}25.679 \dashrightarrow 00{:}59{:}27.549$ shocking event warning of traumas,

NOTE Confidence: 0.9011665275

 $00:59:27.550 \longrightarrow 00:59:29.870$ or death of a relative or loved one.

NOTE Confidence: 0.9011665275

 $00:59:29.870 \longrightarrow 00:59:31.586$ We wanted to separate these by

NOTE Confidence: 0.9011665275

 $00{:}59{:}31.586 \dashrightarrow 00{:}59{:}33.805$ subtype only just to get a nature of

NOTE Confidence: 0.9011665275

 $00:59:33.805 \longrightarrow 00:59:35.941$ the trauma and to see whether or not

NOTE Confidence: 0.9011665275

00:59:35.941 --> 00:59:37.627 there are any differences in regards

NOTE Confidence: 0.9011665275

 $00:59:37.627 \longrightarrow 00:59:40.350$ to the nature of the trauma and how

NOTE Confidence: 0.9011665275

 $00:59:40.350 \dashrightarrow 00:59:42.519$ it informed this type of aging.

NOTE Confidence: 0.9011665275

 $00:59:42.520 \longrightarrow 00:59:43.132$ Next slide,

NOTE Confidence: 0.9011665275

 $00:59:43.132 \longrightarrow 00:59:43.438$ please.

NOTE Confidence: 0.77780102

 $00{:}59{:}46.850 \dashrightarrow 00{:}59{:}48.854$ And since we're seeing these differences

NOTE Confidence: 0.77780102

 $00:59:48.854 \longrightarrow 00:59:50.849$ in lifetime stress and and trauma

NOTE Confidence: 0.77780102

 $00:59:50.849 \longrightarrow 00:59:52.359$ and epigenetic aging between our

00:59:52.359 --> 00:59:54.330 our black and white participants,

NOTE Confidence: 0.77780102

00:59:54.330 --> 00:59:56.437 we we next wanted to ask whether

NOTE Confidence: 0.77780102

00:59:56.437 --> 00:59:58.423 stress overall on the left and

NOTE Confidence: 0.77780102

 $00:59:58.423 \longrightarrow 01:00:00.113$ traumatic events in particular on

NOTE Confidence: 0.77780102

 $01:00:00.113 \longrightarrow 01:00:02.680$ the right predicted a grim image in

NOTE Confidence: 0.77780102

 $01:00:02.680 \longrightarrow 01:00:04.570$ both black and white participants.

NOTE Confidence: 0.77780102

 $01:00:04.570 \longrightarrow 01:00:06.160$ And the answer is is yes,

NOTE Confidence: 0.77780102

 $01:00:06.160 \longrightarrow 01:00:09.016$ we see that a higher stress and

NOTE Confidence: 0.77780102

 $01:00:09.016 \longrightarrow 01:00:11.629$ and trauma predict higher grim age.

NOTE Confidence: 0.77780102

01:00:11.630 --> 01:00:13.150 But as these plots emphasize,

NOTE Confidence: 0.77780102

 $01:00:13.150 \longrightarrow 01:00:15.370$ the black participants had higher stress,

NOTE Confidence: 0.77780102

 $01:00:15.370 \longrightarrow 01:00:16.472$ higher trauma.

NOTE Confidence: 0.77780102

01:00:16.472 --> 01:00:19.778 And grim age when compared to

NOTE Confidence: 0.77780102

 $01{:}00{:}19.778 \dashrightarrow 01{:}00{:}21.930$ white participants next slide.

NOTE Confidence: 0.77780102

 $01:00:21.930 \longrightarrow 01:00:23.892$ So next we used mediation analysis

NOTE Confidence: 0.77780102

 $01:00:23.892 \longrightarrow 01:00:26.465$ to ask whether the higher levels of

01:00:26.465 --> 01:00:28.470 stress and trauma were responsible,

NOTE Confidence: 0.77780102

 $01{:}00{:}28.470 \longrightarrow 01{:}00{:}30.374$ at least in part for the differences

NOTE Confidence: 0.77780102

 $01:00:30.374 \longrightarrow 01:00:32.510$ in grim age between black and

NOTE Confidence: 0.77780102

 $01:00:32.510 \longrightarrow 01:00:33.350$ white participants.

NOTE Confidence: 0.77780102

 $01:00:33.350 \longrightarrow 01:00:34.970$ And to give a brief

NOTE Confidence: 0.77780102

01:00:34.970 --> 01:00:36.266 orientation to these diagrams,

NOTE Confidence: 0.77780102

 $01:00:36.270 \longrightarrow 01:00:37.854$ the indirect effect explains

NOTE Confidence: 0.77780102

 $01:00:37.854 \longrightarrow 01:00:39.834$ how much of the relationship,

NOTE Confidence: 0.77780102

 $01:00:39.840 \dashrightarrow 01:00:41.898$ basically how many of those years

NOTE Confidence: 0.77780102

 $01:00:41.898 \longrightarrow 01:00:43.773$ are explained of the relationship

NOTE Confidence: 0.77780102

 $01{:}00{:}43.773 \dashrightarrow 01{:}00{:}45.933$ between race and grammage is

NOTE Confidence: 0.77780102

 $01:00:45.933 \longrightarrow 01:00:47.661$ explained by the mediator.

NOTE Confidence: 0.77780102

 $01{:}00{:}47.670 \dashrightarrow 01{:}00{:}49.567$ The numbers by the arrows are the

NOTE Confidence: 0.77780102

01:00:49.567 --> 01:00:51.138 coefficients in the model and the

NOTE Confidence: 0.77780102

 $01:00:51.138 \longrightarrow 01:00:52.783$ direct effect is how much of the

 $01:00:52.838 \longrightarrow 01:00:55.088$ relationship is unexplained by the mediator.

NOTE Confidence: 0.77780102

01:00:55.090 --> 01:00:55.404 Now,

NOTE Confidence: 0.77780102

01:00:55.404 --> 01:00:57.288 while both are are highly significant,

NOTE Confidence: 0.77780102

01:00:57.290 --> 01:00:59.360 you'll notice that when comparing

NOTE Confidence: 0.77780102

01:00:59.360 --> 01:01:01.960 the magnitude of the indirect effect,

NOTE Confidence: 0.77780102

 $01:01:01.960 \longrightarrow 01:01:03.750$ the trauma subscale is essentially.

NOTE Confidence: 0.77780102

 $01:01:03.750 \longrightarrow 01:01:06.630$ Equal to that of the total

NOTE Confidence: 0.77780102

01:01:06.630 --> 01:01:08.070 cumulative adversity inventory,

NOTE Confidence: 0.77780102

 $01:01:08.070 \longrightarrow 01:01:10.075$ and it's notable that these

NOTE Confidence: 0.77780102

 $01:01:10.075 \longrightarrow 01:01:12.552$ results hold hold true when after

NOTE Confidence: 0.77780102

 $01{:}01{:}12.552 \dashrightarrow 01{:}01{:}14.916$ we account for differences in BMI

NOTE Confidence: 0.77780102

 $01{:}01{:}14.916 \dashrightarrow 01{:}01{:}17.559$ alcohol use in years of education,

NOTE Confidence: 0.77780102

 $01:01:17.560 \longrightarrow 01:01:19.536$ we went on to do some further analysis

NOTE Confidence: 0.77780102

01:01:19.536 --> 01:01:21.917 that we don't have time to show you today,

NOTE Confidence: 0.77780102

 $01:01:21.920 \longrightarrow 01:01:23.220$ but those really demonstrate

NOTE Confidence: 0.77780102

01:01:23.220 --> 01:01:24.195 that assaultive trauma,

 $01{:}01{:}24.200 \dashrightarrow 01{:}01{:}26.144$ in particular when when Terrell is

NOTE Confidence: 0.77780102

 $01{:}01{:}26.144 \dashrightarrow 01{:}01{:}27.440$ breaking down those categories,

NOTE Confidence: 0.77780102

01:01:27.440 --> 01:01:29.864 was a particularly powerful mediator of

NOTE Confidence: 0.77780102

 $01:01:29.864 \longrightarrow 01:01:32.000$ this relationship between race and age.

NOTE Confidence: 0.77780102

 $01:01:32.000 \longrightarrow 01:01:35.489$ Acceleration next slide.

NOTE Confidence: 0.77780102

 $01:01:35.490 \longrightarrow 01:01:37.337$ So to to summarize our study,

NOTE Confidence: 0.77780102

 $01:01:37.337 \longrightarrow 01:01:39.431$ we've shown you today that black

NOTE Confidence: 0.77780102

 $01{:}01{:}39.431 \dashrightarrow 01{:}01{:}41.089$ participants have higher grim age

NOTE Confidence: 0.77780102

01:01:41.089 --> 01:01:42.649 and face more cumulative stress,

NOTE Confidence: 0.77780102

 $01:01:42.650 \longrightarrow 01:01:44.720$ and in particular traumatic stress

NOTE Confidence: 0.77780102

 $01:01:44.720 \longrightarrow 01:01:46.790$ when compared to white participants.

NOTE Confidence: 0.77780102

 $01:01:46.790 \longrightarrow 01:01:49.694$ And these higher levels of trauma

NOTE Confidence: 0.77780102

 $01{:}01{:}49.694 \dashrightarrow 01{:}01{:}51.630$ partially explained the increased

NOTE Confidence: 0.77780102

 $01:01:51.703 \longrightarrow 01:01:54.805$ scrimmage we observe in black participants.

NOTE Confidence: 0.77780102

01:01:54.810 --> 01:01:56.295 It's worth noting that these

01:01:56.295 --> 01:01:58.258 findings are in a relatively young

NOTE Confidence: 0.77780102

01:01:58.258 --> 01:01:59.930 and remarkably healthy population,

NOTE Confidence: 0.77780102

 $01:01:59.930 \longrightarrow 01:02:01.182$ suggesting that the biological

NOTE Confidence: 0.77780102

 $01{:}02{:}01.182 \dashrightarrow 01{:}02{:}03.384$ embedding of stress and trauma in the

NOTE Confidence: 0.77780102

 $01:02:03.384 \longrightarrow 01:02:05.840$ epigenome is occurring prior to the onset of.

NOTE Confidence: 0.77780102

01:02:05.840 --> 01:02:06.900 Of illness,

NOTE Confidence: 0.77780102

 $01:02:06.900 \longrightarrow 01:02:09.364$ and it's also worth noting that there's

NOTE Confidence: 0.77780102

 $01:02:09.364 \longrightarrow 01:02:11.600$ specificity of these findings to trauma.

NOTE Confidence: 0.77780102

01:02:11.600 --> 01:02:13.294 We didn't see differences between

NOTE Confidence: 0.77780102

01:02:13.294 --> 01:02:15.429 black and white participants in

NOTE Confidence: 0.77780102

01:02:15.429 --> 01:02:17.735 recent life events or or sort

NOTE Confidence: 0.77780102

 $01:02:17.735 \longrightarrow 01:02:19.335$ of the chronic daily stressors.

NOTE Confidence: 0.77780102

 $01:02:19.340 \dashrightarrow 01:02:21.236$ And while black participants had a

NOTE Confidence: 0.77780102

 $01{:}02{:}21.236 \dashrightarrow 01{:}02{:}22.973$ higher prevalence in all categories

NOTE Confidence: 0.77780102

01:02:22.973 --> 01:02:24.218 of traumatic events,

NOTE Confidence: 0.77780102

01:02:24.220 --> 01:02:26.260 assaultive trauma was a particularly

 $01:02:26.260 \longrightarrow 01:02:28.835$ potent mediator of the relationship between

NOTE Confidence: 0.77780102

 $01{:}02{:}28.835 \dashrightarrow 01{:}02{:}31.195$ race and increased scrimmage acceleration.

NOTE Confidence: 0.77780102

 $01:02:31.200 \longrightarrow 01:02:31.670$ Next slide.

NOTE Confidence: 0.855317145

 $01:02:33.420 \longrightarrow 01:02:35.004$ And so the the implications of

NOTE Confidence: 0.855317145

01:02:35.004 --> 01:02:36.660 these findings are are very broad.

NOTE Confidence: 0.855317145

01:02:36.660 --> 01:02:38.196 And first of all,

NOTE Confidence: 0.855317145

01:02:38.196 --> 01:02:40.116 given our limited sample size,

NOTE Confidence: 0.855317145

 $01:02:40.120 \longrightarrow 01:02:41.730$ we're only able to compare

NOTE Confidence: 0.855317145

 $01:02:41.730 \longrightarrow 01:02:43.018$ black versus white Americans.

NOTE Confidence: 0.855317145

 $01:02:43.020 \longrightarrow 01:02:44.892$ And so and also as described

NOTE Confidence: 0.855317145

01:02:44.892 --> 01:02:45.516 previously mentioned,

NOTE Confidence: 0.855317145

 $01:02:45.520 \longrightarrow 01:02:48.337$ this is one of the first to actually compare

NOTE Confidence: 0.855317145

 $01:02:48.337 \dashrightarrow 01:02:51.250$ this specific clock grim age in a young,

NOTE Confidence: 0.855317145

 $01:02:51.250 \longrightarrow 01:02:52.744$ healthy cohort sample.

NOTE Confidence: 0.855317145

01:02:52.744 --> 01:02:54.573 These health disparities, though,

01:02:54.573 --> 01:02:56.904 that they're so observed later in life

NOTE Confidence: 0.855317145

 $01:02:56.904 \longrightarrow 01:02:59.651$ this this study has emphasized the fact

NOTE Confidence: 0.855317145

 $01:02:59.651 \longrightarrow 01:03:01.671$ that essentially that these epigenetic

NOTE Confidence: 0.855317145

 $01{:}03{:}01.737 \dashrightarrow 01{:}03{:}03.699$ changes happen a lot so oner than.

NOTE Confidence: 0.855317145

 $01:03:03.700 \longrightarrow 01:03:05.644$ When we start seeing these burdens

NOTE Confidence: 0.855317145

 $01:03:05.644 \longrightarrow 01:03:08.101$ of disease start to take hold in

NOTE Confidence: 0.855317145

 $01:03:08.101 \longrightarrow 01:03:09.936$ late adulthood and then furthermore,

NOTE Confidence: 0.855317145

 $01{:}03{:}09.940 \dashrightarrow 01{:}03{:}13.820$ I think kind of point to a dolescence as a

NOTE Confidence: 0.855317145

 $01:03:13.820 \longrightarrow 01:03:17.680$ means of an intervention point in trying to.

NOTE Confidence: 0.855317145

01:03:17.680 --> 01:03:19.608 To try to like start to slow down

NOTE Confidence: 0.855317145

 $01{:}03{:}19.608 \dashrightarrow 01{:}03{:}21.618$ some of these insults from taking

NOTE Confidence: 0.855317145

 $01{:}03{:}21.620 \dashrightarrow 01{:}03{:}23.488$ hold in regards to epigenetic age,

NOTE Confidence: 0.855317145

 $01:03:23.488 \longrightarrow 01:03:26.800$ in particular in regards to the second point,

NOTE Confidence: 0.855317145

 $01:03:26.800 \longrightarrow 01:03:28.456$ these are particularly relevant

NOTE Confidence: 0.855317145

01:03:28.456 --> 01:03:30.526 and amongst African Americans who

NOTE Confidence: 0.855317145

 $01{:}03{:}30.526 \longrightarrow 01{:}03{:}32.360$ are 22% more likely experience of

 $01:03:32.360 \longrightarrow 01:03:34.441$ violent crime and more than twice the

NOTE Confidence: 0.855317145

 $01:03:34.441 \longrightarrow 01:03:36.265$ likely to experience a violent and

NOTE Confidence: 0.855317145

 $01:03:36.265 \longrightarrow 01:03:37.748$ lethal encounter with law enforcement

NOTE Confidence: 0.855317145

 $01:03:37.748 \longrightarrow 01:03:39.666$ and in particular to the events of

NOTE Confidence: 0.855317145

 $01:03:39.670 \longrightarrow 01:03:42.196$ the of what happened last weekend.

NOTE Confidence: 0.855317145

 $01:03:42.200 \longrightarrow 01:03:43.688$ Understanding how these affect

NOTE Confidence: 0.855317145

 $01:03:43.688 \longrightarrow 01:03:45.920$ personal health would be one of

NOTE Confidence: 0.855317145

 $01:03:45.980 \longrightarrow 01:03:47.720$ the things that is paramount.

NOTE Confidence: 0.855317145

 $01{:}03{:}47.720 --> 01{:}03{:}50.180$ Understanding how this life expectancy gap

NOTE Confidence: 0.855317145

 $01:03:50.180 \longrightarrow 01:03:53.188$ persists over such a long period of time.

NOTE Confidence: 0.855317145

01:03:53.190 --> 01:03:53.554 Furthermore,

NOTE Confidence: 0.855317145

 $01:03:53.554 \longrightarrow 01:03:56.466$ as as we have kind of alluded to,

NOTE Confidence: 0.855317145

 $01{:}03{:}56.470 \dashrightarrow 01{:}03{:}58.756$ given the fact that these there's

NOTE Confidence: 0.855317145

 $01:03:58.756 \longrightarrow 01:04:00.639$ still a persistent direct effect

NOTE Confidence: 0.855317145

01:04:00.639 --> 01:04:03.910 of of race on accelerated aging,

 $01:04:03.910 \longrightarrow 01:04:05.779$ it opens the door for us understanding

NOTE Confidence: 0.855317145

 $01:04:05.779 \longrightarrow 01:04:08.452$ and house how some of these more complex

NOTE Confidence: 0.855317145

 $01:04:08.452 \longrightarrow 01:04:09.908$ sociological interactions like racial

NOTE Confidence: 0.855317145

01:04:09.908 --> 01:04:11.868 trauma and experience discrimination,

NOTE Confidence: 0.855317145

 $01:04:11.870 \longrightarrow 01:04:12.944$ also impact health.

NOTE Confidence: 0.855317145

01:04:12.944 --> 01:04:15.450 And since in this study we weren't

NOTE Confidence: 0.855317145

 $01:04:15.523 \longrightarrow 01:04:17.980$ able to actually assess or ask about.

NOTE Confidence: 0.855317145

01:04:17.980 --> 01:04:19.730 People's experiences as a turn

NOTE Confidence: 0.855317145

 $01:04:19.730 \longrightarrow 01:04:21.480$ as it related to discrimination.

NOTE Confidence: 0.855317145

01:04:21.480 --> 01:04:23.424 I think one of the things of which

NOTE Confidence: 0.855317145

 $01{:}04{:}23.424 \dashrightarrow 01{:}04{:}25.020$ that would be really interesting to

NOTE Confidence: 0.855317145

 $01:04:25.020 \longrightarrow 01:04:27.402$ look at is how bees unique experiences

NOTE Confidence: 0.855317145

 $01:04:27.402 \longrightarrow 01:04:31.119$ also affect the genetic age and age.

NOTE Confidence: 0.855317145

01:04:31.120 --> 01:04:32.700 Next slide, please.

NOTE Confidence: 0.855317145

 $01:04:32.700 \longrightarrow 01:04:34.456$ And so with that.

NOTE Confidence: 0.855317145

 $01:04:34.456 \longrightarrow 01:04:36.212$ As we've rushed through

01:04:36.212 --> 01:04:38.638 this this very dense paper,

NOTE Confidence: 0.855317145

01:04:38.640 --> 01:04:40.754 we would like to thank our mentors,

NOTE Confidence: 0.855317145

01:04:40.760 --> 01:04:42.815 Derek Gordon, Michael Black also

NOTE Confidence: 0.855317145

 $01:04:42.815 \longrightarrow 01:04:45.519$ helped support us in the in this.

NOTE Confidence: 0.855317145

 $01:04:45.520 \longrightarrow 01:04:47.760$ In this sax mentors.

NOTE Confidence: 0.855317145

 $01:04:47.760 \longrightarrow 01:04:48.640$ If you.

NOTE Confidence: 0.734449927272727

01:04:50.740 --> 01:04:53.248 And also Chris said and young

NOTE Confidence: 0.734449927272727

 $01:04:53.248 \longrightarrow 01:04:55.450$ son also have have been.

NOTE Confidence: 0.734449927272727

 $01{:}04{:}55.450 \dashrightarrow 01{:}04{:}56.825$ Instrumental in regards to helping

NOTE Confidence: 0.734449927272727

 $01:04:56.825 \longrightarrow 01:04:58.768$ guide us in regards to kind of

NOTE Confidence: 0.734449927272727

01:04:58.768 --> 01:05:00.304 developing this project and and what

NOTE Confidence: 0.734449927272727

 $01:05:00.304 \longrightarrow 01:05:02.173$ steps to do after this project is

NOTE Confidence: 0.734449927272727

 $01{:}05{:}02.173 \dashrightarrow 01{:}05{:}03.847$ complete and finally we would like

NOTE Confidence: 0.734449927272727

 $01:05:03.847 \longrightarrow 01:05:06.416$ to thank the lesson family and

NOTE Confidence: 0.734449927272727

 $01:05:06.416 \longrightarrow 01:05:08.074$ foundation for this opportunity and

 $01:05:08.074 \longrightarrow 01:05:09.922$ both of our financial grants in

NOTE Confidence: 0.734449927272727

 $01:05:09.922 \longrightarrow 01:05:11.518$ regards to supporting this work.

NOTE Confidence: 0.895311447142857

 $01:05:16.760 \longrightarrow 01:05:18.846$ Thank you both for a great presentation.

NOTE Confidence: 0.895311447142857

01:05:18.850 --> 01:05:20.551 And again, I applaud not only the

NOTE Confidence: 0.895311447142857

 $01:05:20.551 \longrightarrow 01:05:23.299$ the science, but the collaboration.

NOTE Confidence: 0.895311447142857

 $01:05:23.300 \longrightarrow 01:05:26.344$ Well done, we are in the interest of

NOTE Confidence: 0.895311447142857

 $01:05:26.344 \longrightarrow 01:05:28.700$ time going to go straight on to our

NOTE Confidence: 0.895311447142857

 $01:05:28.700 \longrightarrow 01:05:30.400$ last presentation on our honorable

NOTE Confidence: 0.895311447142857

 $01:05:30.400 \longrightarrow 01:05:32.138$ mention to the loss of an award.

NOTE Confidence: 0.895311447142857

01:05:32.140 --> 01:05:34.790 And I want to invite broad right

NOTE Confidence: 0.895311447142857

 $01{:}05{:}34.790 \longrightarrow 01{:}05{:}37.240$ to introduce the entire Anderson.

NOTE Confidence: 0.8227803975

 $01:05:39.900 \longrightarrow 01:05:41.168$ Thank you so much

NOTE Confidence: 0.724592948571429

 $01:05:41.400 \longrightarrow 01:05:41.886$ and good morning.

NOTE Confidence: 0.724592948571429

01:05:41.886 --> 01:05:43.540 My name is Darwin Boatwright and

NOTE Confidence: 0.724592948571429

 $01:05:43.540 \longrightarrow 01:05:45.530$ I and assistant professor in the

NOTE Confidence: 0.724592948571429

01:05:45.530 --> 01:05:46.722 Department of Emergency Medicine,

 $01:05:46.730 \longrightarrow 01:05:48.410$ and I've studied bias and

NOTE Confidence: 0.724592948571429

 $01{:}05{:}48.410 \dashrightarrow 01{:}05{:}49.754$ discrimination and medical education.

NOTE Confidence: 0.724592948571429

01:05:49.760 --> 01:05:51.685 Today I have the distinct honor of

NOTE Confidence: 0.724592948571429

01:05:51.685 --> 01:05:53.219 introducing doctrine and Tara Anderson,

NOTE Confidence: 0.724592948571429

01:05:53.220 --> 01:05:54.480 who will present some of our work

NOTE Confidence: 0.724592948571429

 $01:05:54.480 \longrightarrow 01:05:56.460$ on the prevalence and influence of

NOTE Confidence: 0.724592948571429

 $01:05:56.460 \longrightarrow 01:05:58.480$ microaggressions in medical school.

NOTE Confidence: 0.724592948571429

01:05:58.480 --> 01:05:59.962 Doctor Anderson has been a long

NOTE Confidence: 0.724592948571429

01:05:59.962 --> 01:06:01.564 standing member of the old community,

NOTE Confidence: 0.724592948571429

01:06:01.564 --> 01:06:03.288 having graduated from Yale University,

NOTE Confidence: 0.724592948571429

01:06:03.288 --> 01:06:04.736 Yale School of Medicine,

NOTE Confidence: 0.724592948571429

 $01{:}06{:}04.740 \dashrightarrow 01{:}06{:}06.748$ and is now a member of the illustrious

NOTE Confidence: 0.724592948571429

 $01{:}06{:}06.748 \dashrightarrow 01{:}06{:}08.220$ Department of Psychiatry at Yale.

NOTE Confidence: 0.724592948571429

 $01:06:08.220 \longrightarrow 01:06:09.708$ I thought the honor to collaborate.

NOTE Confidence: 0.724592948571429

 $01:06:09.710 \longrightarrow 01:06:10.840$ And learn from Doctor Anderson.

 $01:06:10.840 \longrightarrow 01:06:13.423$ Since we first met in 2015 and we

NOTE Confidence: 0.724592948571429

 $01:06:13.423 \longrightarrow 01:06:15.128$ began discussing the possibility of

NOTE Confidence: 0.724592948571429

01:06:15.128 --> 01:06:17.130 science and medical literature examining

NOTE Confidence: 0.872177263333333

01:06:17.140 --> 01:06:18.190 racism and medicine

NOTE Confidence: 0.848007124

 $01:06:18.360 \longrightarrow 01:06:19.870$ and brainstorming ways we could

NOTE Confidence: 0.848007124

 $01:06:19.870 \longrightarrow 01:06:21.380$ address this gap in knowledge.

NOTE Confidence: 0.848007124

 $01{:}06{:}21.380 \dashrightarrow 01{:}06{:}22.320$ These discussions produce some

NOTE Confidence: 0.848007124

 $01:06:22.320 \longrightarrow 01:06:23.495$ of the work Doctor Anderson

NOTE Confidence: 0.848007124

01:06:23.495 --> 01:06:25.018 will share with you today.

NOTE Confidence: 0.848007124

01:06:25.018 --> 01:06:26.573 Examining the prevalence of

NOTE Confidence: 0.848007124

 $01{:}06{:}26.573 \dashrightarrow 01{:}06{:}27.806$ microaggressions and their

NOTE Confidence: 0.848007124

 $01:06:27.806 \longrightarrow 01:06:29.039$ association with medical

NOTE Confidence: 0.848007124

01:06:29.039 --> 01:06:31.088 student mental health and also

NOTE Confidence: 0.848007124

 $01:06:31.088 \longrightarrow 01:06:32.276$ medical student satisfaction.

NOTE Confidence: 0.848007124

 $01:06:32.280 \longrightarrow 01:06:33.020$ Doctor Anderson.

NOTE Confidence: 0.917832251428572

 $01:06:36.480 \longrightarrow 01:06:38.472$ Hello everyone, we're happy to be here and

 $01:06:38.472 \longrightarrow 01:06:40.359$ we'll get started on the presentation.

NOTE Confidence: 0.917832251428572

 $01:06:40.360 \longrightarrow 01:06:41.998$ It's going to be a quick one

NOTE Confidence: 0.917832251428572

 $01:06:42.000 \longrightarrow 01:06:44.940$ so next slide please Chris.

NOTE Confidence: 0.917832251428572

01:06:44.940 --> 01:06:46.680 So I want to start with

NOTE Confidence: 0.917832251428572

01:06:46.680 --> 01:06:48.015 psychiatrist Chester Pierce,

NOTE Confidence: 0.917832251428572

 $01:06:48.015 \longrightarrow 01:06:49.795$ who originally defined microaggressions

NOTE Confidence: 0.917832251428572

01:06:49.795 --> 01:06:51.380 directly quoting from him.

NOTE Confidence: 0.917832251428572

 $01:06:51.380 \longrightarrow 01:06:53.737$ He defined them as the subtle, stunning,

NOTE Confidence: 0.917832251428572

 $01{:}06{:}53.737 \dashrightarrow 01{:}06{:}56.022$ often automatic and nonverbal exchanges

NOTE Confidence: 0.917832251428572

 $01:06:56.022 \longrightarrow 01:06:59.437$ which are put downs of blacks by offenders.

NOTE Confidence: 0.917832251428572

 $01:06:59.440 \longrightarrow 01:07:01.028$ The offensive mechanisms used

NOTE Confidence: 0.917832251428572

 $01:07:01.028 \longrightarrow 01:07:03.013$ against blacks are often innocuous.

NOTE Confidence: 0.917832251428572

 $01{:}07{:}03.020 \dashrightarrow 01{:}07{:}04.530$ The cumulative weight of their

NOTE Confidence: 0.917832251428572

 $01:07:04.530 \longrightarrow 01:07:06.492$ never ending burden is the major

NOTE Confidence: 0.917832251428572

 $01:07:06.492 \longrightarrow 01:07:08.477$ ingredient in black white interactions.

01:07:08.480 --> 01:07:10.916 Today migrations are regarded as casual,

NOTE Confidence: 0.917832251428572

 $01:07:10.920 \longrightarrow 01:07:12.668$ verbal or nonverbal slides,

NOTE Confidence: 0.917832251428572

 $01:07:12.668 \longrightarrow 01:07:14.416$ whether intentional or unintentional,

NOTE Confidence: 0.917832251428572

 $01:07:14.420 \longrightarrow 01:07:15.364$ which communicate.

NOTE Confidence: 0.917832251428572

 $01:07:15.364 \longrightarrow 01:07:17.785$ Rogatory messages based on the targets

NOTE Confidence: 0.917832251428572

01:07:17.785 --> 01:07:19.392 modules, marginalized group membership,

NOTE Confidence: 0.917832251428572

 $01:07:19.392 \longrightarrow 01:07:21.936$ and here are some examples of

NOTE Confidence: 0.917832251428572

01:07:21.936 --> 01:07:23.999 different types of microaggressions,

NOTE Confidence: 0.917832251428572

 $01{:}07{:}24.000 \dashrightarrow 01{:}07{:}27.000$ illustrated from the I2 hashtag

NOTE Confidence: 0.917832251428572

01:07:27.000 --> 01:07:28.239 I2M Harvard campaign.

NOTE Confidence: 0.917832251428572

 $01{:}07{:}28.239 --> 01{:}07{:}30.717$ So you can see them here.

NOTE Confidence: 0.917832251428572

01:07:30.720 --> 01:07:33.244 So our study objectives.

NOTE Confidence: 0.917832251428572

 $01:07:33.244 \longrightarrow 01:07:35.137$ Next slide please.

NOTE Confidence: 0.917832251428572

 $01:07:35.140 \longrightarrow 01:07:37.415$ We sought to characterize the experiences of

NOTE Confidence: 0.917832251428572

 $01:07:37.415 \longrightarrow 01:07:39.260$ microaggressions for US medical students.

NOTE Confidence: 0.917832251428572

01:07:39.260 --> 01:07:41.160 How frequently did they occur,

 $01:07:41.160 \longrightarrow 01:07:43.279$ and who was most likely to experience them?

NOTE Confidence: 0.917832251428572 01:07:43.280 --> 01:07:45.800 Next slide. NOTE Confidence: 0.917832251428572

 $01:07:45.800 \longrightarrow 01:07:47.498$ We wanted to know if microagressions

NOTE Confidence: 0.917832251428572

 $01:07:47.498 \longrightarrow 01:07:49.509$ we want to test the association

NOTE Confidence: 0.917832251428572

 $01{:}07{:}49.509 \dashrightarrow 01{:}07{:}51.145$ between microaggressions and medical

NOTE Confidence: 0.917832251428572

 $01:07:51.145 \longrightarrow 01:07:53.600$ student well being and mental health.

NOTE Confidence: 0.917832251428572 01:07:53.600 --> 01:07:55.380 Next slide. NOTE Confidence: 0.917832251428572

 $01:07:55.380 \longrightarrow 01:07:57.726$ We also wanted to assess the

NOTE Confidence: 0.917832251428572

 $01:07:57.726 \longrightarrow 01:07:58.899$ association between microaggressions

NOTE Confidence: 0.917832251428572

 $01{:}07{:}58.899 \dashrightarrow 01{:}08{:}00.938$ and medical school satisfaction.

NOTE Confidence: 0.917832251428572 01:08:00.940 --> 01:08:01.842 Next slide, NOTE Confidence: 0.917832251428572

 $01:08:01.842 \longrightarrow 01:08:04.097$ we distributed a cross sectional

NOTE Confidence: 0.917832251428572

 $01{:}08{:}04.097 \dashrightarrow 01{:}08{:}05.866$ Internet based an onymous survey

NOTE Confidence: 0.917832251428572

 $01:08:05.866 \longrightarrow 01:08:07.942$ to medical students in the US

NOTE Confidence: 0.917832251428572

 $01:08:07.942 \longrightarrow 01:08:09.380$ between 2016 and 2017.

 $01:08:09.380 \longrightarrow 01:08:10.968$ Questions on microaggressions were

NOTE Confidence: 0.917832251428572

 $01{:}08{:}10.968 \dashrightarrow 01{:}08{:}12.953$ adapted from the racial ethnic

NOTE Confidence: 0.917832251428572

 $01:08:12.953 \longrightarrow 01:08:14.632$ microaggression scale and we asked

NOTE Confidence: 0.917832251428572

01:08:14.632 --> 01:08:15.864 if respondents had experienced

NOTE Confidence: 0.917832251428572

 $01:08:15.864 \longrightarrow 01:08:17.213$ various types of microaggressions

NOTE Confidence: 0.917832251428572

01:08:17.213 --> 01:08:19.241 how frequently they occurred and the

NOTE Confidence: 0.917832251428572

 $01:08:19.241 \longrightarrow 01:08:21.298$ reasons they believe they were targeted.

NOTE Confidence: 0.917832251428572

 $01:08:21.300 \longrightarrow 01:08:23.904$ These questions did not directly mention

NOTE Confidence: 0.917832251428572

 $01:08:23.904 \longrightarrow 01:08:25.741$ racism, prejudice, or demographics.

NOTE Confidence: 0.917832251428572

01:08:25.741 --> 01:08:28.076 And participants were instructed to

NOTE Confidence: 0.917832251428572

 $01{:}08{:}28.076 \longrightarrow 01{:}08{:}29.839$ include microaggressions committed by

NOTE Confidence: 0.917832251428572

01:08:29.839 --> 01:08:31.456 fellow students, residents and faculty,

NOTE Confidence: 0.917832251428572

 $01:08:31.456 \longrightarrow 01:08:33.690$ and so here's an example of one of

NOTE Confidence: 0.917832251428572

 $01:08:33.690 \longrightarrow 01:08:35.079$ those questions. Next slide, please.

NOTE Confidence: 0.91788366

01:08:37.580 --> 01:08:39.860 Questions on medical school satisfaction,

NOTE Confidence: 0.91788366

 $01:08:39.860 \longrightarrow 01:08:42.807$ like this one, were adapted from the

 $01:08:42.807 \longrightarrow 01:08:44.070$ Institutional Betrayal Questionnaire

NOTE Confidence: 0.91788366

 $01:08:44.133 \longrightarrow 01:08:45.748$ and then afterwards respondents filled

NOTE Confidence: 0.91788366

01:08:45.748 --> 01:08:48.580 out the PHQ 2 PHQ 2 depression screen,

NOTE Confidence: 0.91788366

 $01:08:48.580 \longrightarrow 01:08:51.112$ which is 2 item depression screen

NOTE Confidence: 0.91788366

 $01:08:51.112 \longrightarrow 01:08:52.800$ and their demographic information.

NOTE Confidence: 0.91788366

 $01:08:52.800 \longrightarrow 01:08:55.146$ Next slide. Here are the demographics

NOTE Confidence: 0.91788366

 $01:08:55.146 \longrightarrow 01:08:56.710$ of our final sample.

NOTE Confidence: 0.91788366

01:08:56.710 --> 01:08:59.010 We had 759 respondents from

NOTE Confidence: 0.91788366

01:08:59.010 --> 01:09:00.850 over 100 medical schools,

NOTE Confidence: 0.91788366

 $01:09:00.850 \longrightarrow 01:09:03.448$ so it was a substantial sample.

NOTE Confidence: 0.91788366

 $01:09:03.450 \longrightarrow 01:09:04.524$ Next slide.

NOTE Confidence: 0.91788366

 $01:09:04.524 \longrightarrow 01:09:07.746$ What we found the experience of

NOTE Confidence: 0.91788366

 $01{:}09{:}07.746 \dashrightarrow 01{:}09{:}10.420$ microaggressions was incredibly common.

NOTE Confidence: 0.91788366

 $01:09:10.420 \longrightarrow 01:09:11.512$ 98.7 participants reported

NOTE Confidence: 0.91788366

 $01:09:11.512 \longrightarrow 01:09:13.332$ having experienced at least one

01:09:13.332 --> 01:09:16.570 microaggression in medical school,

NOTE Confidence: 0.91788366

01:09:16.570 --> 01:09:18.362 33.9% reported having experienced

NOTE Confidence: 0.91788366

 $01:09:18.362 \longrightarrow 01:09:20.154$ a microaggression almost daily

NOTE Confidence: 0.91788366

 $01:09:20.154 \longrightarrow 01:09:21.860$ in medical school.

NOTE Confidence: 0.91788366

 $01:09:21.860 \longrightarrow 01:09:23.950$ Next slide.

NOTE Confidence: 0.91788366

 $01:09:23.950 \longrightarrow 01:09:25.405$ The most common attributions of

NOTE Confidence: 0.91788366

01:09:25.405 --> 01:09:27.366 the reasons people felt they were

NOTE Confidence: 0.91788366

 $01:09:27.366 \longrightarrow 01:09:29.190$ experiencing microaggressions were gender,

NOTE Confidence: 0.91788366

 $01:09:29.190 \longrightarrow 01:09:31.086$ race, ethnicity, and age.

NOTE Confidence: 0.91788366

01:09:31.086 --> 01:09:34.600 As you can see here next slide.

NOTE Confidence: 0.91788366

 $01{:}09{:}34.600 \dashrightarrow 01{:}09{:}36.685$ So respondents also described the

NOTE Confidence: 0.91788366

01:09:36.685 --> 01:09:38.353 microaggressions they had experienced,

NOTE Confidence: 0.91788366

 $01:09:38.360 \longrightarrow 01:09:40.124$ so here's 1 the respondents said

NOTE Confidence: 0.91788366

 $01:09:40.124 \longrightarrow 01:09:42.041$ I had an older male physician

NOTE Confidence: 0.91788366

 $01:09:42.041 \longrightarrow 01:09:43.736$ as a first year mentor.

NOTE Confidence: 0.91788366

 $01{:}09{:}43.740 \dashrightarrow 01{:}09{:}45.356$ I shattered him every other week in his

 $01:09:45.356 \longrightarrow 01:09:47.020$ clinic for my intro to clinical medicine.

NOTE Confidence: 0.91788366

 $01{:}09{:}47.020 \dashrightarrow 01{:}09{:}48.855$ Required course he would regularly

NOTE Confidence: 0.91788366

 $01:09:48.855 \longrightarrow 01:09:51.277$ introduce me to patients as a pretty

NOTE Confidence: 0.91788366

 $01:09:51.277 \longrightarrow 01:09:53.118$ face to talk to while you wait.

NOTE Confidence: 0.91788366

01:09:53.120 --> 01:09:53.614 Next slide,

NOTE Confidence: 0.91788366

01:09:53.614 --> 01:09:55.590 I choose to wear my hair and it's

NOTE Confidence: 0.91788366

01:09:55.646 --> 01:09:57.156 natural state sometimes and one

NOTE Confidence: 0.91788366

 $01:09:57.156 \longrightarrow 01:09:59.160$ of my professors made a comment.

NOTE Confidence: 0.91788366

 $01{:}09{:}59.160 \dashrightarrow 01{:}10{:}00.840$ Did you get electrocuted after that

NOTE Confidence: 0.91788366

 $01{:}10{:}00.840 \dashrightarrow 01{:}10{:}02.710$ comment was made him and another

NOTE Confidence: 0.91788366

 $01{:}10{:}02.710 \dashrightarrow 01{:}10{:}04.340$ professor preceded to laugh.

NOTE Confidence: 0.91788366

01:10:04.340 --> 01:10:05.460 Next slide.

NOTE Confidence: 0.883069033333333

01:10:08.680 --> 01:10:09.448 Next slide, please.

NOTE Confidence: 0.789797956666667

 $01:10:11.980 \longrightarrow 01:10:14.804$ So here are the result and more on

NOTE Confidence: 0.789797956666667

 $01:10:14.804 \longrightarrow 01:10:17.000$ the experiences of microaggressions.

01:10:17.000 --> 01:10:18.800 About half the respondents experienced

NOTE Confidence: 0.789797956666667

 $01{:}10{:}18.800 \dashrightarrow 01{:}10{:}20.920$ at least one microaggression a week.

NOTE Confidence: 0.789797956666667

 $01:10:20.920 \longrightarrow 01:10:23.096$ So we divided the cohort into two groups,

NOTE Confidence: 0.789797956666667

 $01:10:23.100 \longrightarrow 01:10:25.224$ a higher exposure group which experienced

NOTE Confidence: 0.789797956666667

 $01:10:25.224 \longrightarrow 01:10:27.534$ microaggressions at least once a week and

NOTE Confidence: 0.789797956666667

01:10:27.534 --> 01:10:29.208 a lower exposure group which experienced

NOTE Confidence: 0.789797956666667

 $01:10:29.210 \longrightarrow 01:10:30.878$ microaggressions less frequently.

NOTE Confidence: 0.789797956666667

 $01:10:30.880 \longrightarrow 01:10:32.060$ As you can see,

NOTE Confidence: 0.789797956666667

01:10:32.060 --> 01:10:33.535 students who identified as black,

NOTE Confidence: 0.789797956666667

01:10:33.540 --> 01:10:34.885 Asian, multiracial and being a

NOTE Confidence: 0.789797956666667

 $01{:}10{:}34.885 \dashrightarrow 01{:}10{:}36.660$ female sex were the most likely to

NOTE Confidence: 0.789797956666667

 $01:10:36.660 \longrightarrow 01:10:38.519$ be in the higher exposure group.

NOTE Confidence: 0.789797956666667

 $01:10:38.520 \longrightarrow 01:10:40.270$ We also performed an intersectional.

NOTE Confidence: 0.789797956666667

 $01:10:40.270 \longrightarrow 01:10:42.028$ Analysis of race and sex assigned

NOTE Confidence: 0.789797956666667

 $01:10:42.028 \longrightarrow 01:10:44.058$ at birth which showed that white

NOTE Confidence: 0.789797956666667

 $01:10:44.058 \longrightarrow 01:10:46.058$ males reported the lowest average

 $01:10:46.058 \longrightarrow 01:10:47.760$ microaggression frequency scores and

NOTE Confidence: 0.789797956666667

 $01:10:47.760 \longrightarrow 01:10:49.760$ black females reported the highest

NOTE Confidence: 0.789797956666667

 $01:10:49.760 \longrightarrow 01:10:51.850$ mean microaggression frequency scores

NOTE Confidence: 0.789797956666667

 $01:10:51.850 \longrightarrow 01:10:55.516$ within all racial or ethnic groups.

NOTE Confidence: 0.789797956666667

 $01:10:55.520 \longrightarrow 01:10:57.136$ Mean microaggression scores were

NOTE Confidence: 0.789797956666667

 $01:10:57.136 \longrightarrow 01:10:59.560$ lower for meals than for females.

NOTE Confidence: 0.789797956666667

 $01:10:59.560 \longrightarrow 01:11:02.080$ Next slide please.

NOTE Confidence: 0.789797956666667

 $01{:}11{:}02.080 \dashrightarrow 01{:}11{:}04.250$ So here also this is the correlation

NOTE Confidence: 0.789797956666667

 $01{:}11{:}04.250 \dashrightarrow 01{:}11{:}06.857$ between the the PHQ 2 depression screen

NOTE Confidence: 0.789797956666667

 $01:11:06.857 \longrightarrow 01:11:08.877$ and the frequency of microaggression.

NOTE Confidence: 0.789797956666667

 $01:11:08.880 \longrightarrow 01:11:10.610$ So we divided the microaggression

NOTE Confidence: 0.789797956666667

01:11:10.610 --> 01:11:12.340 frequency score into 4 quartiles,

NOTE Confidence: 0.789797956666667

 $01{:}11{:}12.340 \dashrightarrow 01{:}11{:}15.652$ and we found that as the frequency of

NOTE Confidence: 0.789797956666667

01:11:15.652 --> 01:11:17.160 experiencing microaggressions increased,

NOTE Confidence: 0.789797956666667

 $01:11:17.160 \longrightarrow 01:11:19.476$ the likelihood of respondent having a

 $01:11:19.476 \longrightarrow 01:11:21.020$ positive depression screen increased

NOTE Confidence: 0.789797956666667

 $01{:}11{:}21.076 \dashrightarrow 01{:}11{:}23.332$ quite substantially in a dose response

NOTE Confidence: 0.789797956666667

 $01:11:23.332 \longrightarrow 01:11:24.836$ relationship even after adjusting

NOTE Confidence: 0.789797956666667

01:11:24.888 --> 01:11:26.820 for demographic factors such as race,

NOTE Confidence: 0.789797956666667

01:11:26.820 --> 01:11:28.539 ethnicity, sex, SES,

NOTE Confidence: 0.789797956666667

01:11:28.539 --> 01:11:30.258 urine, medical school,

NOTE Confidence: 0.789797956666667

01:11:30.260 --> 01:11:31.946 clinical experience, etcetera.

NOTE Confidence: 0.789797956666667 01:11:31.946 --> 01:11:33.070 Next slide, NOTE Confidence: 0.789797956666667

01:11:33.070 --> 01:11:34.930 please. NOTE Confidence: 0.7897979566666667

01:11:34.930 --> 01:11:36.810 Compared to the lower exposure group,

NOTE Confidence: 0.789797956666667

 $01:11:36.810 \longrightarrow 01:11:38.294$ respondents with higher microaggression

NOTE Confidence: 0.789797956666667

01:11:38.294 --> 01:11:40.520 exposure were less likely to recommend

NOTE Confidence: 0.789797956666667

 $01:11:40.569 \longrightarrow 01:11:41.899$ their medical school to friends

NOTE Confidence: 0.7897979566666667

 $01:11:41.899 \longrightarrow 01:11:43.643$ less likely to donate to their

NOTE Confidence: 0.789797956666667

01:11:43.643 --> 01:11:45.087 medical school after graduation,

NOTE Confidence: 0.789797956666667

 $01:11:45.090 \longrightarrow 01:11:46.794$ and less likely to consider staying

01:11:46.794 --> 01:11:48.670 at their institution for residency.

NOTE Confidence: 0.789797956666667

01:11:48.670 --> 01:11:50.809 Next slide, please.

NOTE Confidence: 0.789797956666667 01:11:50.810 --> 01:11:51.568 In addition, NOTE Confidence: 0.789797956666667

 $01:11:51.568 \longrightarrow 01:11:53.463$ higher exposure respondents were over

NOTE Confidence: 0.789797956666667

 $01:11:53.463 \longrightarrow 01:11:55.790$ three times more likely to have this.

NOTE Confidence: 0.789797956666667

01:11:55.790 --> 01:11:58.065 This is past behavior three times more

NOTE Confidence: 0.789797956666667

 $01:11:58.065 \longrightarrow 01:12:00.506$ likely to have missed class because

NOTE Confidence: 0.789797956666667

 $01:12:00.506 \longrightarrow 01:12:02.366$ the environment was unwelcoming.

NOTE Confidence: 0.789797956666667

01:12:02.370 --> 01:12:03.810 They were also four times,

NOTE Confidence: 0.789797956666667

 $01:12:03.810 \longrightarrow 01:12:04.926$ nearly four times.

NOTE Confidence: 0.789797956666667

 $01{:}12{:}04.926 \dashrightarrow 01{:}12{:}07.158$ More likely to consider medical school

NOTE Confidence: 0.789797956666667

 $01:12:07.158 \longrightarrow 01:12:09.028$ transfer and medical school with drawal

NOTE Confidence: 0.789797956666667

 $01{:}12{:}09.028 \dashrightarrow 01{:}12{:}12.260$ compared to the lower exposure residents.

NOTE Confidence: 0.789797956666667

 $01:12:12.260 \longrightarrow 01:12:14.372$ Next slide please.

NOTE Confidence: 0.789797956666667

 $01:12:14.372 \longrightarrow 01:12:17.188$ So implications increase frequency

01:12:17.188 --> 01:12:19.300 of experiencing microaggressions

NOTE Confidence: 0.789797956666667

 $01:12:19.300 \longrightarrow 01:12:20.968$ may impact medical students

NOTE Confidence: 0.789797956666667

01:12:20.968 --> 01:12:22.636 health mental health negatively.

NOTE Confidence: 0.789797956666667

01:12:22.640 --> 01:12:24.430 They are common experience and

NOTE Confidence: 0.789797956666667

 $01:12:24.430 \longrightarrow 01:12:26.220$ bipac and female medical students

NOTE Confidence: 0.789797956666667

01:12:26.276 --> 01:12:28.566 experience them more frequently and

NOTE Confidence: 0.789797956666667

 $01:12:28.566 \longrightarrow 01:12:30.398$ students with multiple marginalized

NOTE Confidence: 0.789797956666667

 $01{:}12{:}30.398 \dashrightarrow 01{:}12{:}32.112$ identities such as black women

NOTE Confidence: 0.789797956666667

 $01{:}12{:}32.112 \dashrightarrow 01{:}12{:}35.750$ are impacted the most next slide.

NOTE Confidence: 0.789797956666667

01:12:35.750 --> 01:12:37.619 As our data on avoiding class or

NOTE Confidence: 0.789797956666667

 $01{:}12{:}37.619 \dashrightarrow 01{:}12{:}38.798$ considering with drawal from medical

NOTE Confidence: 0.789797956666667

 $01:12:38.798 \longrightarrow 01:12:40.463$ school suggests the experience of

NOTE Confidence: 0.789797956666667

 $01:12:40.463 \longrightarrow 01:12:41.795$ microaggressions may increase the

NOTE Confidence: 0.789797956666667

01:12:41.848 --> 01:12:43.538 attrition of diverse medical trainees,

NOTE Confidence: 0.789797956666667

01:12:43.540 --> 01:12:45.345 which would imperil efforts to

NOTE Confidence: 0.789797956666667

 $01:12:45.345 \longrightarrow 01:12:46.789$ diversify the physician workforce,

 $01:12:46.790 \longrightarrow 01:12:49.190$ possible interventions to decrease

NOTE Confidence: 0.789797956666667

 $01{:}12{:}49.190 \dashrightarrow 01{:}12{:}50.990$ microaggressions include education,

NOTE Confidence: 0.789797956666667

01:12:50.990 --> 01:12:53.122 improved reporting and remediation,

NOTE Confidence: 0.789797956666667

 $01:12:53.122 \longrightarrow 01:12:55.254$ and incorporating racial attitudes

NOTE Confidence: 0.789797956666667

 $01:12:55.254 \longrightarrow 01:12:57.729$ assessments into admissions and hiring.

NOTE Confidence: 0.789797956666667 01:12:57.730 --> 01:12:58.402 And finally,

NOTE Confidence: 0.789797956666667

 $01:12:58.402 \longrightarrow 01:13:00.082$ we want to propose reevaluating

NOTE Confidence: 0.789797956666667

 $01{:}13{:}00.082 \dashrightarrow 01{:}13{:}02.366$ the use of the word microaggression

NOTE Confidence: 0.789797956666667

 $01{:}13{:}02.366 \dashrightarrow 01{:}13{:}04.381$ and replacing it with specific

NOTE Confidence: 0.789797956666667

 $01{:}13{:}04.381 \dashrightarrow 01{:}13{:}06.480$ terms such as racism or sexism.

NOTE Confidence: 0.789797956666667

 $01:13:06.480 \longrightarrow 01:13:08.516$ Our findings show serious associations

NOTE Confidence: 0.789797956666667

 $01:13:08.516 \longrightarrow 01:13:09.848$ between microaggressions and

NOTE Confidence: 0.789797956666667

 $01{:}13{:}09.848 \dashrightarrow 01{:}13{:}11.660$ outcomes for medical student,

NOTE Confidence: 0.789797956666667

 $01:13:11.660 \longrightarrow 01:13:13.448$ and we hope our research helps

NOTE Confidence: 0.789797956666667

 $01:13:13.448 \longrightarrow 01:13:15.093$ dispel the ideas that these

 $01:13:15.093 \longrightarrow 01:13:17.043$ microaggressions are a lower priority

NOTE Confidence: 0.789797956666667

 $01:13:17.043 \longrightarrow 01:13:19.428$ or or an inconsequential issue in

NOTE Confidence: 0.789797956666667

01:13:19.428 --> 01:13:20.956 medical education and training.

NOTE Confidence: 0.789797956666667

01:13:20.960 --> 01:13:23.210 Next slide you can click

NOTE Confidence: 0.789797956666667

 $01:13:23.210 \longrightarrow 01:13:24.560$ through the references.

NOTE Confidence: 0.789797956666667

01:13:24.560 --> 01:13:25.784 There's about 3-4 pages,

NOTE Confidence: 0.789797956666667

 $01:13:25.784 \longrightarrow 01:13:28.379$ so I want to thank thank my mentors,

NOTE Confidence: 0.789797956666667

01:13:28.380 --> 01:13:30.320 down Boatwright and Anna Reisman,

NOTE Confidence: 0.764648854285714

01:13:30.320 --> 01:13:32.360 the Lussman Family Foundation

NOTE Confidence: 0.764648854285714

 $01:13:32.360 \longrightarrow 01:13:33.890$ and award committee.

NOTE Confidence: 0.764648854285714

 $01{:}13{:}33.890 \dashrightarrow 01{:}13{:}36.880$ Of course, our illustrious coauthors.

NOTE Confidence: 0.764648854285714

 $01:13:36.880 \longrightarrow 01:13:38.925$ Especially the brilliant doctor let

NOTE Confidence: 0.764648854285714

 $01:13:38.925 \longrightarrow 01:13:42.209$ and you can go to the last slide.

NOTE Confidence: 0.764648854285714

01:13:42.210 --> 01:13:42.982 And also of course,

NOTE Confidence: 0.764648854285714

01:13:42.982 --> 01:13:44.470 thank you to my friends and family,

NOTE Confidence: 0.764648854285714

 $01{:}13{:}44.470 \dashrightarrow 01{:}13{:}46.108$ especially my mom and dad who

01:13:46.108 --> 01:13:47.793 are actually tuning in from Sri

NOTE Confidence: 0.764648854285714

 $01{:}13{:}47.793 \dashrightarrow 01{:}13{:}49.407$ Lanka and who are pictured here.

NOTE Confidence: 0.764648854285714

 $01:13:49.410 \longrightarrow 01:13:52.137$ So and thank you to you all for listening.

NOTE Confidence: 0.770036248

 $01{:}14{:}01.460 \dashrightarrow 01{:}14{:}04.967$ Thank you so much the Antara rounding

NOTE Confidence: 0.770036248

 $01{:}14{:}04.967 \dashrightarrow 01{:}14{:}07.882$ out our presentations. And I see your.

NOTE Confidence: 0.770036248

 $01{:}14{:}07.882 \dashrightarrow 01{:}14{:}10.000$ I see your parents there welcome.