WEBVTT

NOTE duration:"00:18:40" NOTE recognizability:0.834

NOTE language:en-us

NOTE Confidence: 0.75432896

00:00:00.000 --> 00:00:02.770 Our last speaker before me

NOTE Confidence: 0.75432896

00:00:02.770 --> 00:00:04.986 is Doctor Cecilia Calhoun,

NOTE Confidence: 0.75432896

 $00{:}00{:}04.990 \dashrightarrow 00{:}07.618$ who is assistant professor of internal

NOTE Confidence: 0.75432896

 $00:00:07.618 \longrightarrow 00:00:10.370$ medicine in the section Pneumatology.

NOTE Confidence: 0.75432896

 $00:00:10.370 \longrightarrow 00:00:12.036$ We're talking to us about sickle cell.

NOTE Confidence: 0.75432896

 $00{:}00{:}12.040 \dashrightarrow 00{:}00{:}15.554$ Thanks so much for speaking with us.

NOTE Confidence: 0.75432896

 $00:00:15.560 \longrightarrow 00:00:17.653$ Fact admit I was kind of nervous

NOTE Confidence: 0.75432896

 $00:00:17.653 \dashrightarrow 00:00:19.703$ to go after Marcella but I

NOTE Confidence: 0.75432896

 $00:00:19.703 \longrightarrow 00:00:21.544$ remember that one of her titles is

NOTE Confidence: 0.75432896

 $00:00:21.544 \longrightarrow 00:00:23.078$ guiding light to people like me.

NOTE Confidence: 0.75432896

 $00:00:23.080 \longrightarrow 00:00:24.820$ She's the reason I'm here and

NOTE Confidence: 0.75432896

 $00:00:24.820 \longrightarrow 00:00:26.659$ how thankful I am for this

NOTE Confidence: 0.75432896

00:00:26.659 --> 00:00:28.815 opportunity to share my work to her,

 $00:00:28.820 \longrightarrow 00:00:30.828$ to Tisha to the YMCA family for giving

NOTE Confidence: 0.75432896

 $00:00:30.828 \longrightarrow 00:00:32.897$ me the space to talk with you all.

NOTE Confidence: 0.75432896

 $00:00:32.900 \longrightarrow 00:00:36.077$ A little bit about the work that I do.

NOTE Confidence: 0.75432896

 $00:00:36.080 \longrightarrow 00:00:38.760$ OK so I wanna just ground us with the case.

NOTE Confidence: 0.75432896

 $00:00:38.760 \longrightarrow 00:00:41.532$ A patient of mine in the because the work

NOTE Confidence: 0.75432896

00:00:41.532 --> 00:00:44.316 that I do is for my sickle cell patients.

NOTE Confidence: 0.75432896

 $00{:}00{:}44.320 \to 00{:}00{:}46.000$ So I want to talk to you about an AG

NOTE Confidence: 0.75432896

 $00:00:46.050 \longrightarrow 00:00:47.780$ so he's a 23 year old man that I met.

NOTE Confidence: 0.75432896

 $00{:}00{:}47.780 \dashrightarrow 00{:}00{:}49.748$ He has hemoglobin SC disease and I met

NOTE Confidence: 0.75432896

 $00:00:49.748 \longrightarrow 00:00:52.215$ him as a young adult in Transition clinic.

NOTE Confidence: 0.75432896

 $00{:}00{:}52.220 --> 00{:}00{:}53.788$ Didn't care for him as a kid.

NOTE Confidence: 0.75432896

 $00:00:53.790 \longrightarrow 00:00:55.885$ His disease have been complicated

NOTE Confidence: 0.75432896

 $00{:}00{:}55.885 \rightarrow 00{:}00{:}57.980$ by splenic sequestration and pain

NOTE Confidence: 0.75432896

 $00:00:58.045 \longrightarrow 00:01:00.145$ and also some eye challenges and

NOTE Confidence: 0.75432896

00:01:00.145 --> 00:01:01.925 he was following pretty regularly

NOTE Confidence: 0.75432896

 $00:01:01.925 \longrightarrow 00:01:03.485$ when he was a child.

 $00:01:03.490 \longrightarrow 00:01:04.960$ But as he kind of got older

NOTE Confidence: 0.75432896

 $00{:}01{:}04.960 \dashrightarrow 00{:}01{:}06.020$ when it's adolescence his care.

NOTE Confidence: 0.75432896

 $00:01:06.020 \longrightarrow 00:01:07.270$ Became a bit more intermittent.

NOTE Confidence: 0.791284595

 $00:01:09.650 \longrightarrow 00:01:11.546$ I think I want the same dress when

NOTE Confidence: 0.791284595

00:01:11.546 --> 00:01:14.810 you look at and when you look at AG

NOTE Confidence: 0.791284595

 $00:01:14.810 \longrightarrow 00:01:16.812$ you know many of the challenges he

NOTE Confidence: 0.791284595

00:01:16.812 --> 00:01:18.962 faced went outside of our clinic and

NOTE Confidence: 0.791284595

 $00:01:18.962 \longrightarrow 00:01:20.502$ he had academic challenges secondary

NOTE Confidence: 0.791284595

 $00{:}01{:}20.502 \dashrightarrow 00{:}01{:}22.646$ to his pain and frequent admissions.

NOTE Confidence: 0.791284595

 $00{:}01{:}22.650 \dashrightarrow 00{:}01{:}24.156$ He had lost his insurance coverage.

NOTE Confidence: 0.791284595

 $00:01:24.160 \longrightarrow 00:01:26.183$ He wasn't able to take obtained hydroxyurea

NOTE Confidence: 0.791284595

 $00:01:26.183 \longrightarrow 00:01:28.402$ or is acute pain medications due to

NOTE Confidence: 0.791284595

 $00{:}01{:}28.402 \dashrightarrow 00{:}01{:}30.352$ insurance issues and it had challenges

NOTE Confidence: 0.791284595

 $00{:}01{:}30.412 \dashrightarrow 00{:}01{:}32.740$ with the criminal justice system and

NOTE Confidence: 0.791284595

 $00:01:32.740 \longrightarrow 00:01:34.292$ subsequent challenges with employment

 $00:01:34.300 \longrightarrow 00:01:36.628$ because of that and because of its pain.

NOTE Confidence: 0.791284595

 $00:01:36.630 \longrightarrow 00:01:38.905$ This also precipitated a lot of anxiety.

NOTE Confidence: 0.791284595

 $00:01:38.910 \longrightarrow 00:01:40.910$ For him.

NOTE Confidence: 0.791284595

 $00:01:40.910 \longrightarrow 00:01:42.709$ And so the reason I excuse me,

NOTE Confidence: 0.791284595

00:01:42.710 --> 00:01:44.546 the reason I bring up and him as an

NOTE Confidence: 0.791284595

00:01:44.546 --> 00:01:45.794 example is because he represents

NOTE Confidence: 0.791284595

 $00:01:45.794 \longrightarrow 00:01:47.730$ one of many of the patients that we

NOTE Confidence: 0.791284595

 $00:01:47.730 \longrightarrow 00:01:49.330$ see who at a very surface level or

NOTE Confidence: 0.791284595

 $00:01:49.330 \longrightarrow 00:01:51.166$ one on one interaction and clinical

NOTE Confidence: 0.791284595

00:01:51.166 --> 00:01:53.578 setting can seem like a series

NOTE Confidence: 0.791284595

 $00{:}01{:}53.578 \dashrightarrow 00{:}01{:}55.066$ of pathophysiologic challenges.

NOTE Confidence: 0.791284595

 $00:01:55.070 \longrightarrow 00:01:56.636$ But the disease that they experience

NOTE Confidence: 0.791284595

00:01:56.636 --> 00:01:58.647 is in the context of so much greater,

NOTE Confidence: 0.791284595

 $00{:}01{:}58.650 \dashrightarrow 00{:}01{:}59.654$ so much more greater,

NOTE Confidence: 0.791284595

 $00:01:59.654 \longrightarrow 00:02:02:02.321$ and my work and my goal is to help to

NOTE Confidence: 0.791284595

 $00:02:02.321 \longrightarrow 00:02:03.965$ understand the full context of what

 $00:02:04.023 \longrightarrow 00:02:06.435$ they are and think about how we can as

NOTE Confidence: 0.791284595

 $00{:}02{:}06.435 \dashrightarrow 00{:}02{:}08.048$ physician scientists and researchers

NOTE Confidence: 0.791284595

 $00:02:08.048 \longrightarrow 00:02:10.278$ can improve their care overall.

NOTE Confidence: 0.791284595 00:02:10.280 --> 00:02:10.507 OK, NOTE Confidence: 0.791284595

 $00:02:10.507 \longrightarrow 00:02:12.096$ so let's talk a little bit about

NOTE Confidence: 0.791284595

 $00:02:12.096 \longrightarrow 00:02:12.980$ sickle cell disease.

NOTE Confidence: 0.791284595

 $00:02:12.980 \longrightarrow 00:02:15.332$ Sickle cell disease is the most

NOTE Confidence: 0.791284595

00:02:15.332 --> 00:02:17.255 common monogenetic disorder in the

NOTE Confidence: 0.791284595

 $00:02:17.255 \longrightarrow 00:02:18.638$ world with approximately 300,000

NOTE Confidence: 0.791284595

 $00:02:18.638 \longrightarrow 00:02:21.200$ live births each year in the world.

NOTE Confidence: 0.791284595

 $00:02:21.200 \longrightarrow 00:02:23.558$ And that's because of its protective

NOTE Confidence: 0.791284595

00:02:23.558 --> 00:02:24.737 Ness against malaria.

NOTE Confidence: 0.875576566428572

 $00{:}02{:}27.010 \dashrightarrow 00{:}02{:}28.094$ In the United States,

NOTE Confidence: 0.875576566428572

 $00{:}02{:}28.094 \to 00{:}02{:}29.720$ our most recent data says that

NOTE Confidence: 0.875576566428572

00:02:29.776 --> 00:02:31.288 it's about 100,000 Americans,

 $00:02:31.290 \longrightarrow 00:02:32.946$ mostly of African descent.

NOTE Confidence: 0.875576566428572

 $00{:}02{:}32.946 \longrightarrow 00{:}02{:}34.602$ With increasing incidence and

NOTE Confidence: 0.875576566428572

 $00:02:34.602 \longrightarrow 00:02:36.570$ accounts for about one in every

NOTE Confidence: 0.875576566428572

00:02:36.570 --> 00:02:38.182 365 African American births,

NOTE Confidence: 0.875576566428572

 $00:02:38.182 \longrightarrow 00:02:39.391$ mostly concentrated in

NOTE Confidence: 0.875576566428572

 $00:02:39.391 \longrightarrow 00:02:41.010$ the most populous state.

NOTE Confidence: 0.875576566428572

 $00:02:41.010 \longrightarrow 00:02:42.960$ In fact, 91% of sickle cell

NOTE Confidence: 0.875576566428572

 $00:02:42.960 \longrightarrow 00:02:44.999$ patients are in about 23 states.

NOTE Confidence: 0.937229555714286

 $00:02:47.730 \longrightarrow 00:02:49.767$ When we think about sickle cell disease,

NOTE Confidence: 0.937229555714286

 $00:02:49.770 \longrightarrow 00:02:51.875$ the genetic mutation results in

NOTE Confidence: 0.937229555714286

 $00{:}02{:}51.875 \dashrightarrow 00{:}02{:}54.450$ abnormal formation of red blood cells,

NOTE Confidence: 0.937229555714286

 $00:02:54.450 \longrightarrow 00:02:56.760$ which have a negative impact impact

NOTE Confidence: 0.937229555714286

 $00{:}02{:}56.760 \dashrightarrow 00{:}02{:}58.300$ with the microvascular environment

NOTE Confidence: 0.937229555714286

 $00:02:58.355 \longrightarrow 00:03:00.387$ causing many clinical manifestations.

NOTE Confidence: 0.937229555714286

 $00:03:00.390 \longrightarrow 00:03:02.166$ So I know this is a full slide,

NOTE Confidence: 0.937229555714286

00:03:02.170 --> 00:03:05.110 but it can range from a cute

00:03:05.110 --> 00:03:06.102 acute complications like pain,

NOTE Confidence: 0.937229555714286

 $00:03:06.102 \longrightarrow 00:03:07.886$ which I think is most path and

NOTE Confidence: 0.937229555714286

 $00:03:07.886 \longrightarrow 00:03:09.146$ Monica and what most people

NOTE Confidence: 0.937229555714286

 $00:03:09.146 \longrightarrow 00:03:10.550$ associate with sickle cell disease.

NOTE Confidence: 0.937229555714286

 $00:03:10.550 \longrightarrow 00:03:12.392$ But also it's important for us

NOTE Confidence: 0.937229555714286

 $00:03:12.392 \longrightarrow 00:03:14.157$ to think of other complications

NOTE Confidence: 0.937229555714286

00:03:14.157 --> 00:03:16.750 like stroke that happen long term.

NOTE Confidence: 0.88217897375

00:03:19.790 --> 00:03:22.261 So the life expectancy of patient with

NOTE Confidence: 0.88217897375

 $00{:}03{:}22.261 \dashrightarrow 00{:}03{:}24.627$ people with sickle cell disease is

NOTE Confidence: 0.88217897375

 $00:03:24.627 \longrightarrow 00:03:26.528$ significantly lower than their counterparts.

NOTE Confidence: 0.88217897375

 $00{:}03{:}26.528 \dashrightarrow 00{:}03{:}28.831$ So with this figure shows us is

NOTE Confidence: 0.88217897375

 $00:03:28.831 \longrightarrow 00:03:30.474$ probability of survival by age and

NOTE Confidence: 0.88217897375

 $00:03:30.474 \longrightarrow 00:03:32.091$ you can see that patients with

NOTE Confidence: 0.88217897375

 $00:03:32.091 \longrightarrow 00:03:33.939$ sickle cell have a decreased life

NOTE Confidence: 0.88217897375

 $00:03:33.939 \longrightarrow 00:03:37.768$ expectancy of really about 20 years.

00:03:37.770 --> 00:03:39.966 Even with the advent of hydroxyurea,

NOTE Confidence: 0.88217897375

 $00:03:39.970 \longrightarrow 00:03:42.280$ which increases fetal hemoglobin and is one

NOTE Confidence: 0.88217897375

 $00:03:42.280 \longrightarrow 00:03:45.130$ of our only disease modifying medications,

NOTE Confidence: 0.88217897375

 $00:03:45.130 \longrightarrow 00:03:46.870$ their life expectancy is

NOTE Confidence: 0.88217897375

 $00:03:46.870 \longrightarrow 00:03:48.175$ still significantly lowered.

NOTE Confidence: 0.859613338

 $00:03:50.500 \longrightarrow 00:03:52.230$ So again, this point illustrates

NOTE Confidence: 0.859613338

 $00:03:52.230 \longrightarrow 00:03:53.960$ mortality and sickle cell disease,

NOTE Confidence: 0.859613338

00:03:53.960 --> 00:03:56.011 and what's important to know about this

NOTE Confidence: 0.859613338

 $00:03:56.011 \longrightarrow 00:03:57.987$ figure with the age of death by age

NOTE Confidence: 0.859613338

 $00:03:57.987 \longrightarrow 00:03:59.800$ group on the X axis and the percentage

NOTE Confidence: 0.859613338

 $00{:}03{:}59.800 \dashrightarrow 00{:}04{:}02.044$ of deaths on the Y axis is that in the

NOTE Confidence: 0.859613338

 $00:04:02.044 \longrightarrow 00:04:03.660$ late 70s there were two peaks of death.

NOTE Confidence: 0.859613338

 $00:04:03.660 \longrightarrow 00:04:05.375$ There was that infancy and toddler peak,

NOTE Confidence: 0.859613338

 $00:04:05.380 \longrightarrow 00:04:07.333$ and then it started to rise around

NOTE Confidence: 0.859613338

 $00:04:07.333 \longrightarrow 00:04:08.720$ adolescence and young adulthood.

NOTE Confidence: 0.859613338

 $00:04:08.720 \longrightarrow 00:04:10.735$ But because of clinical trials

00:04:10.735 --> 00:04:13.380 and multi center studies and the

NOTE Confidence: 0.859613338

 $00{:}04{:}13.380 \dashrightarrow 00{:}04{:}15.596$ implementation of prophylactic penicillin

NOTE Confidence: 0.859613338

 $00{:}04{:}15.596 \dashrightarrow 00{:}04{:}18.366$ and vaccination and newborn screen,

NOTE Confidence: 0.859613338

 $00:04:18.370 \longrightarrow 00:04:19.960$ we were really able to decrease.

NOTE Confidence: 0.859613338

00:04:19.960 --> 00:04:22.540 A peak around infancy and toddlerhood,

NOTE Confidence: 0.859613338

 $00:04:22.540 \longrightarrow 00:04:24.448$ but this piece around adolescence and

NOTE Confidence: 0.859613338

 $00:04:24.448 \longrightarrow 00:04:26.240$ young adulthood is still persists.

NOTE Confidence: 0.709372502222222

 $00:04:28.540 \longrightarrow 00:04:29.688$ This data was corroborated

NOTE Confidence: 0.709372502222222

 $00:04:29.688 \longrightarrow 00:04:31.123$ by the Dallas newborn cohort,

NOTE Confidence: 0.709372502222222

 $00:04:31.130 \longrightarrow 00:04:33.643$ which was is the largest single center

NOTE Confidence: 0.7093725022222222

00:04:33.643 --> 00:04:36.564 cohort today with 940 sickle cell patients.

NOTE Confidence: 0.709372502222222

 $00:04:36.564 \longrightarrow 00:04:39.425$ What this cohort showed us is that

NOTE Confidence: 0.709372502222222

 $00:04:39.425 \longrightarrow 00:04:41.938$ the children with sickle cell disease

NOTE Confidence: 0.709372502222222

00:04:41.938 --> 00:04:44.448 are really living until adulthood,

NOTE Confidence: 0.709372502222222

 $00:04:44.450 \longrightarrow 00:04:46.842$ but it has, so it's shifted from a

00:04:46.842 --> 00:04:48.555 chronic acute disease of childhood

NOTE Confidence: 0.709372502222222

 $00{:}04{:}48.555 \dashrightarrow 00{:}04{:}50.998$ to a chronic disease and the burden

NOTE Confidence: 0.709372502222222

00:04:51.065 --> 00:04:52.997 of disease is really on a dults.

NOTE Confidence: 0.709372502222222

 $00:04:53.000 \longrightarrow 00:04:54.230$ The interesting thing about this

NOTE Confidence: 0.709372502222222

 $00:04:54.230 \longrightarrow 00:04:56.032$ cohort is that of the patients who

NOTE Confidence: 0.709372502222222

 $00:04:56.032 \longrightarrow 00:04:57.592$ reported deaths in the cohort that

NOTE Confidence: 0.709372502222222

 $00:04:57.592 \longrightarrow 00:04:59.154$ all would die within two years

NOTE Confidence: 0.709372502222222

 $00:04:59.154 \longrightarrow 00:05:00.394$ of transition to adult care.

NOTE Confidence: 0.7093725022222222

 $00{:}05{:}00.400 \to 00{:}05{:}02.290$ OK, so what's important to know about

NOTE Confidence: 0.709372502222222

 $00:05:02.290 \longrightarrow 00:05:04.435$ this is that the transition space is

NOTE Confidence: 0.7093725022222222

 $00{:}05{:}04.435 \dashrightarrow 00{:}05{:}06.349$ a very vulnerable time for patients

NOTE Confidence: 0.709372502222222

 $00:05:06.405 \longrightarrow 00:05:08.190$ with sickle cell disease persons.

NOTE Confidence: 0.709372502222222

 $00:05:08.190 \longrightarrow 00:05:11.452$ So it's a further characterize this,

NOTE Confidence: 0.709372502222222

 $00:05:11.452 \longrightarrow 00:05:13.462$ and in addition to understanding

NOTE Confidence: 0.709372502222222

 $00:05:13.462 \longrightarrow 00:05:15.070$ the morbidity is high.

NOTE Confidence: 0.709372502222222

 $00{:}05{:}15.070 \dashrightarrow 00{:}05{:}16.670$ Myself and my colleagues at

 $00:05:16.670 \longrightarrow 00:05:18.270$ Washington University and the Center

NOTE Confidence: 0.709372502222222

 $00{:}05{:}18.328 \dashrightarrow 00{:}05{:}19.608$ for Administrative Data Research

NOTE Confidence: 0.709372502222222

 $00:05:19.608 \longrightarrow 00:05:21.528$ took a look at utilization data

NOTE Confidence: 0.709372502222222

 $00:05:21.587 \longrightarrow 00:05:22.787$ for sickle cell disease.

NOTE Confidence: 0.709372502222222

 $00:05:22.790 \longrightarrow 00:05:24.920$ We looked at the healthcare

NOTE Confidence: 0.7093725022222222

00:05:24.920 --> 00:05:26.624 cost and utilization project,

NOTE Confidence: 0.709372502222222

00:05:26.630 --> 00:05:28.766 commonly known as H cup data,

NOTE Confidence: 0.709372502222222

 $00:05:28.770 \longrightarrow 00:05:31.474$ which is a rich source of data for

NOTE Confidence: 0.709372502222222

 $00{:}05{:}31.474 \dashrightarrow 00{:}05{:}33.420$ in patient and hospitalizations.

NOTE Confidence: 0.709372502222222

 $00:05:33.420 \longrightarrow 00:05:34.760$ Admissions and administrative data.

NOTE Confidence: 0.709372502222222

00:05:34.760 --> 00:05:37.703 We looked at the state of New York in 2004,

NOTE Confidence: 0.709372502222222 00:05:37.703 --> 00:05:38.522 five to 14. NOTE Confidence: 0.709372502222222

 $00:05:38.522 \longrightarrow 00:05:40.622$ Been used in a crypted identifier to

NOTE Confidence: 0.709372502222222

 $00{:}05{:}40.622 \dashrightarrow 00{:}05{:}42.657$ understand patient level encounters versus

NOTE Confidence: 0.709372502222222

 $00:05:42.657 \longrightarrow 00:05:45.421$ single center level encounters to get a

00:05:45.421 --> 00:05:47.226 better understanding of utilization patterns,

NOTE Confidence: 0.709372502222222

 $00{:}05{:}47.230 \dashrightarrow 00{:}05{:}48.150$ including hospitalizations.

NOTE Confidence: 0.709372502222222

 $00:05:48.150 \longrightarrow 00:05:49.070$ Readmission rates.

NOTE Confidence: 0.709372502222222

 $00:05:49.070 \longrightarrow 00:05:53.270$ We were able to look at over 19,000 patients

NOTE Confidence: 0.709372502222222

 $00:05:53.270 \longrightarrow 00:05:57.848$ with over 140,000 individual encounters.

NOTE Confidence: 0.709372502222222

 $00{:}05{:}57.850 \dashrightarrow 00{:}06{:}00.230$ And what we found corroborated other data.

NOTE Confidence: 0.709372502222222

00:06:00.230 --> 00:06:00.924 You know,

NOTE Confidence: 0.709372502222222

 $00:06:00.924 \longrightarrow 00:06:02.659$ we found that adolescents and

NOTE Confidence: 0.709372502222222

 $00{:}06{:}02.659 \dashrightarrow 00{:}06{:}05.193$ adults had the highest rates of

NOTE Confidence: 0.709372502222222

 $00:06:05.193 \longrightarrow 00:06:07.563$ hospitalization amongst the entire cohort.

NOTE Confidence: 0.709372502222222

 $00:06:07.570 \longrightarrow 00:06:09.842$ So we have the percent of total counters

NOTE Confidence: 0.709372502222222

 $00:06:09.842 \longrightarrow 00:06:11.447$ represented by the line in Orange.

NOTE Confidence: 0.709372502222222

 $00:06:11.450 \longrightarrow 00:06:14.180$ And then blue represents per

NOTE Confidence: 0.709372502222222

 $00:06:14.180 \longrightarrow 00:06:15.818$ ten person years.

NOTE Confidence: 0.709372502222222

 $00:06:15.820 \longrightarrow 00:06:17.876$ And then when we looked at readmission rates,

NOTE Confidence: 0.709372502222222

 $00:06:17.880 \longrightarrow 00:06:21.107$ they too were highest among adult that

 $00:06:21.107 \longrightarrow 00:06:23.820$ adolescent and young adult age group.

NOTE Confidence: 0.709372502222222

 $00:06:23.820 \longrightarrow 00:06:25.860$ So and only do we know that the

NOTE Confidence: 0.709372502222222

 $00:06:25.860 \longrightarrow 00:06:27.432$ the adolescent and young adult age

NOTE Confidence: 0.709372502222222

00:06:27.432 --> 00:06:29.405 group is a period of high morbidity

NOTE Confidence: 0.709372502222222

 $00:06:29.405 \longrightarrow 00:06:31.485$ and mortality and high utilization.

NOTE Confidence: 0.709372502222222 00:06:31.490 --> 00:06:32.018 We can.

NOTE Confidence: 0.709372502222222

00:06:32.018 --> 00:06:33.602 We can surmise that young adults

NOTE Confidence: 0.709372502222222

 $00{:}06{:}33.602 \dashrightarrow 00{:}06{:}35.531$ with sickle cell are the most

NOTE Confidence: 0.709372502222222

 $00{:}06{:}35.531 \dashrightarrow 00{:}06{:}36.875$ vulnerable during that transition

NOTE Confidence: 0.709372502222222

 $00{:}06{:}36.875 \dashrightarrow 00{:}06{:}38.308$ from pediatric to a dult care.

NOTE Confidence: 0.78750559

 $00:06:40.660 \longrightarrow 00:06:42.760$ So transition to sickle cell

NOTE Confidence: 0.78750559

 $00{:}06{:}42.760 \dashrightarrow 00{:}06{:}44.860$ disease is a complicated spot.

NOTE Confidence: 0.78750559

 $00:06:44.860 \longrightarrow 00:06:46.960$ OK represents this intersection of.

NOTE Confidence: 0.78750559

 $00{:}06{:}46.960 \dashrightarrow 00{:}06{:}48.220$ I used to say normal adolescent

NOTE Confidence: 0.78750559

00:06:48.220 --> 00:06:49.299 development until I got some

 $00:06:49.299 \longrightarrow 00:06:50.475$ pushback like what do you mean?

NOTE Confidence: 0.78750559

 $00:06:50.480 \longrightarrow 00:06:51.356$ Normal adolescence like?

NOTE Confidence: 0.78750559

00:06:51.356 --> 00:06:53.108 You know my my friends with

NOTE Confidence: 0.78750559

00:06:53.108 --> 00:06:54.540 adolescence tell me it's not normal,

NOTE Confidence: 0.78750559

 $00:06:54.540 \longrightarrow 00:06:56.500$ but they're the insidious complications

NOTE Confidence: 0.78750559

 $00:06:56.500 \longrightarrow 00:06:58.460$ of their disease coming together.

NOTE Confidence: 0.78750559

 $00{:}06{:}58.460 \dashrightarrow 00{:}07{:}00.290$ Changes in resources like our

NOTE Confidence: 0.78750559

00:07:00.290 --> 00:07:02.939 patient AG and then a big changes

NOTE Confidence: 0.78750559

 $00:07:02.939 \longrightarrow 00:07:04.810$ in that social environment.

NOTE Confidence: 0.801204774166667

 $00:07:07.310 \longrightarrow 00:07:08.834$ To better characterize this

NOTE Confidence: 0.801204774166667

 $00{:}07{:}08.834 \dashrightarrow 00{:}07{:}10.358$ specific transition for patients

NOTE Confidence: 0.801204774166667

 $00:07:10.358 \longrightarrow 00:07:11.869$ with sickle cell disease,

NOTE Confidence: 0.801204774166667

 $00:07:11.870 \longrightarrow 00:07:14.030$ we conducted a qualitative

NOTE Confidence: 0.801204774166667

 $00:07:14.030 \longrightarrow 00:07:16.190$ study with 63 participants.

NOTE Confidence: 0.801204774166667

 $00:07:16.190 \longrightarrow 00:07:18.302$ So key stakeholders,

NOTE Confidence: 0.801204774166667

 $00:07:18.302 \longrightarrow 00:07:20.070$ including providers, patients,

00:07:20.070 --> 00:07:21.870 and their caregivers about what

NOTE Confidence: 0.801204774166667

 $00:07:21.870 \longrightarrow 00:07:24.019$ are the challenges they face when

NOTE Confidence: 0.801204774166667

00:07:24.019 --> 00:07:25.951 they were trying to get essential

NOTE Confidence: 0.801204774166667

 $00:07:25.951 \longrightarrow 00:07:27.649$ healthcare and educational needs.

NOTE Confidence: 0.801204774166667

 $00:07:27.650 \longrightarrow 00:07:29.192$ One thing that I enjoy about

NOTE Confidence: 0.801204774166667

00:07:29.192 --> 00:07:30.220 using a qualitative approach

NOTE Confidence: 0.801204774166667

 $00:07:30.273 \longrightarrow 00:07:31.628$ is that it's not prescriptive,

NOTE Confidence: 0.801204774166667

 $00{:}07{:}31.630 \dashrightarrow 00{:}07{:}33.380$ but it allows our patients to tell

NOTE Confidence: 0.801204774166667

 $00:07:33.380 \longrightarrow 00:07:35.233$ us what they need and what's most

NOTE Confidence: 0.801204774166667

 $00:07:35.233 \longrightarrow 00:07:37.600$ important to them so that we as physicians.

NOTE Confidence: 0.801204774166667

 $00:07:37.600 \longrightarrow 00:07:39.325$ Scientists can address their needs

NOTE Confidence: 0.801204774166667

 $00:07:39.325 \longrightarrow 00:07:41.549$ and the way that's important to them,

NOTE Confidence: 0.801204774166667

 $00:07:41.550 \longrightarrow 00:07:43.953$ so I want to share with you a little

NOTE Confidence: 0.801204774166667

 $00:07:43.953 \longrightarrow 00:07:46.305$ bit of the themes that emerge and also

NOTE Confidence: 0.801204774166667

 $00:07:46.305 \longrightarrow 00:07:49.928$ a few of what our participants said.

 $00:07:49.930 \longrightarrow 00:07:52.716$ So our patients talk to us about

NOTE Confidence: 0.801204774166667

00:07:52.716 --> 00:07:55.020 this change in environment,

NOTE Confidence: 0.801204774166667

 $00:07:55.020 \longrightarrow 00:07:56.567$ about how when they were kids they

NOTE Confidence: 0.801204774166667

00:07:56.567 --> 00:07:58.167 got treated one way and when they

NOTE Confidence: 0.801204774166667

 $00:07:58.167 \longrightarrow 00:07:59.793$ went to the healthcare system it was

NOTE Confidence: 0.801204774166667

00:07:59.793 --> 00:08:01.281 different and how lead leaving those

NOTE Confidence: 0.801204774166667

 $00:08:01.281 \longrightarrow 00:08:03.122$ that have known him their whole lives

NOTE Confidence: 0.801204774166667

 $00:08:03.122 \longrightarrow 00:08:04.760$ is so intimidating and that they

NOTE Confidence: 0.801204774166667

 $00:08:04.811 \longrightarrow 00:08:06.479$ can see and feel that difference.

NOTE Confidence: 0.835284696086956

 $00:08:08.770 \longrightarrow 00:08:10.126$ Our providers individuals committed

NOTE Confidence: 0.835284696086956

 $00:08:10.126 \longrightarrow 00:08:12.455$ to quality care in these patients told

NOTE Confidence: 0.835284696086956

 $00:08:12.455 \longrightarrow 00:08:14.170$ us we really need to start talking

NOTE Confidence: 0.835284696086956

 $00:08:14.170 \longrightarrow 00:08:15.698$ about this with patients young.

NOTE Confidence: 0.835284696086956

 $00{:}08{:}15.700 \dashrightarrow 00{:}08{:}16.640$ We need to prepare them.

NOTE Confidence: 0.835284696086956

 $00:08:16.640 \longrightarrow 00:08:17.996$ We want to empower them and

NOTE Confidence: 0.835284696086956

 $00:08:17.996 \longrightarrow 00:08:19.549$ give them what they need to

 $00:08:19.549 \longrightarrow 00:08:20.737$ make a successful transition.

NOTE Confidence: 0.892904353333333

 $00{:}08{:}24.130 \dashrightarrow 00{:}08{:}26.668$ So we use the consolidated framework

NOTE Confidence: 0.892904353333333

 $00:08:26.668 \longrightarrow 00:08:27.937$ for implementation research,

NOTE Confidence: 0.892904353333333

 $00:08:27.940 \longrightarrow 00:08:29.465$ which is a commonly used

NOTE Confidence: 0.892904353333333

00:08:29.465 --> 00:08:30.380 implementation science framework,

NOTE Confidence: 0.892904353333333

 $00:08:30.380 \longrightarrow 00:08:32.718$ which I'll talk a little bit about

NOTE Confidence: 0.892904353333333

 $00:08:32.718 \longrightarrow 00:08:34.714$ shortly to understand the major themes

NOTE Confidence: 0.892904353333333

 $00:08:34.714 \longrightarrow 00:08:36.884$ in transition and the way that this

NOTE Confidence: 0.892904353333333

 $00{:}08{:}36.950 \dashrightarrow 00{:}08{:}39.070$ study expounded upon those previous

NOTE Confidence: 0.892904353333333

 $00:08:39.070 \longrightarrow 00:08:41.190$ understanding of transition is that

NOTE Confidence: 0.892904353333333

 $00{:}08{:}41.190 \dashrightarrow 00{:}08{:}42.636$ it really started to include the

NOTE Confidence: 0.892904353333333

 $00:08:42.636 \longrightarrow 00:08:44.158$ stigma that patients with sickle cell

NOTE Confidence: 0.892904353333333

 $00{:}08{:}44.158 \dashrightarrow 00{:}08{:}45.688$ disease talked about that they faced.

NOTE Confidence: 0.892904353333333

 $00{:}08{:}45.690 \to 00{:}08{:}47.844$ We highlighted the systemic issues with

NOTE Confidence: 0.892904353333333

 $00:08:47.844 \longrightarrow 00:08:49.583$ challenges with hematologic providers that

 $00:08:49.583 \longrightarrow 00:08:51.340$ want to care for sickle cell patients.

NOTE Confidence: 0.892904353333333

 $00:08:51.340 \longrightarrow 00:08:53.220$ It helped us understand the role of health

NOTE Confidence: 0.892904353333333

 $00:08:53.220 \longrightarrow 00:08:54.720$ literacy and the need and preparing.

NOTE Confidence: 0.892904353333333

 $00:08:54.720 \longrightarrow 00:08:56.370$ Are young adults for transition,

NOTE Confidence: 0.892904353333333

 $00:08:56.370 \longrightarrow 00:08:58.418$ in addition to highlighting

NOTE Confidence: 0.892904353333333

 $00:08:58.418 \longrightarrow 00:09:00.466$ the disease complications and

NOTE Confidence: 0.892904353333333

 $00:09:00.466 \longrightarrow 00:09:02.439$ changing resources that we know.

NOTE Confidence: 0.892904353333333

 $00:09:02.440 \longrightarrow 00:09:05.374$ So we know that transition is not only a

NOTE Confidence: 0.892904353333333

00:09:05.374 --> 00:09:07.806 problem for patients with sickle cell,

NOTE Confidence: 0.892904353333333

 $00:09:07.810 \longrightarrow 00:09:08.754$ it's a problem overall.

NOTE Confidence: 0.892904353333333

 $00:09:08.754 \dashrightarrow 00:09:10.407$ It's full audience and I'm like how

NOTE Confidence: 0.892904353333333

 $00:09:10.407 \longrightarrow 00:09:11.758$ many of you all were in college.

NOTE Confidence: 0.892904353333333

00:09:11.760 --> 00:09:12.753 Seeing your pediatrician.

NOTE Confidence: 0.8929043533333333

 $00:09:12.753 \longrightarrow 00:09:15.790$ So the question is where do we start like?

NOTE Confidence: 0.892904353333333

 $00:09:15.790 \longrightarrow 00:09:16.510$ What do we do?

NOTE Confidence: 0.892904353333333

00:09:16.510 --> 00:09:17.845 OK, we know that this is a challenge,

 $00:09:17.850 \longrightarrow 00:09:19.215$ but we want to be actual oriented.

NOTE Confidence: 0.892904353333333

 $00:09:19.220 \longrightarrow 00:09:21.110$ So what do we do?

NOTE Confidence: 0.892904353333333 00:09:21.110 --> 00:09:22.265 So in 2011, NOTE Confidence: 0.892904353333333

00:09:22.265 --> 00:09:24.190 the American Academy of Pediatrics

NOTE Confidence: 0.892904353333333

 $00:09:24.190 \longrightarrow 00:09:26.210$ published a report for guidelines

NOTE Confidence: 0.892904353333333

 $00:09:26.210 \longrightarrow 00:09:28.160$ for healthcare transition and then

NOTE Confidence: 0.892904353333333

 $00:09:28.160 \longrightarrow 00:09:30.165$ in 2018 they actually included an

NOTE Confidence: 0.892904353333333

 $00{:}09{:}30.165 \dashrightarrow 00{:}09{:}32.161$ update which was a collaboration with

NOTE Confidence: 0.892904353333333

 $00:09:32.161 \longrightarrow 00:09:33.801$ the American Society of Hematology

NOTE Confidence: 0.892904353333333

 $00:09:33.801 \longrightarrow 00:09:35.679$ to outline processes for a success.

NOTE Confidence: 0.892904353333333

 $00:09:35.680 \longrightarrow 00:09:37.285$ What they proposed as a

NOTE Confidence: 0.892904353333333

00:09:37.285 --> 00:09:37.927 successful transition,

NOTE Confidence: 0.8929043533333333

 $00{:}09{:}37.930 \dashrightarrow 00{:}09{:}40.044$ and this was shown to be effective

NOTE Confidence: 0.892904353333333

 $00{:}09{:}40.044 \dashrightarrow 00{:}09{:}42.264$ in a primary care clinic and

NOTE Confidence: 0.892904353333333

 $00:09:42.264 \longrightarrow 00:09:43.920$ endocrinology clinic as well.

 $00:09:46.360 \longrightarrow 00:09:48.000$ This this guideline centers on

NOTE Confidence: 0.647538321

00:09:48.000 --> 00:09:49.6406 core elements of transition,

NOTE Confidence: 0.647538321

 $00:09:49.640 \longrightarrow 00:09:52.358$ so this includes having a clear

NOTE Confidence: 0.647538321

00:09:52.358 --> 00:09:53.717 policy tracking appropriately

NOTE Confidence: 0.647538321

 $00:09:53.717 \longrightarrow 00:09:55.658$ preparation and readiness planning.

NOTE Confidence: 0.647538321

00:09:55.660 --> 00:09:57.264 Integrating into adult care,

NOTE Confidence: 0.647538321

 $00:09:57.264 \longrightarrow 00:09:59.670$ and then doing iterative feedback to

NOTE Confidence: 0.647538321

 $00:09:59.733 \longrightarrow 00:10:02.134$ make sure that this space is completed.

NOTE Confidence: 0.647538321

 $00{:}10{:}02.140 \dashrightarrow 00{:}10{:}04.219$ So my question was if we know

NOTE Confidence: 0.647538321

 $00:10:04.219 \longrightarrow 00:10:06.691$ that this is a problem and we

NOTE Confidence: 0.647538321

 $00{:}10{:}06.691 \dashrightarrow 00{:}10{:}08.576$ have a evidence based solution,

NOTE Confidence: 0.647538321

 $00:10:08.580 \longrightarrow 00:10:11.373$ why do we not have structured transition

NOTE Confidence: 0.647538321

 $00:10:11.373 \longrightarrow 00:10:13.806$ programs for sickle cell disease and

NOTE Confidence: 0.647538321

 $00:10:13.806 \longrightarrow 00:10:16.368$ that is the work that we're doing?

NOTE Confidence: 0.647538321

 $00:10:16.370 \longrightarrow 00:10:18.169$ So the way that I do that,

NOTE Confidence: 0.647538321

 $00{:}10{:}18.170 \dashrightarrow 00{:}10{:}20.214$ and I believe the first step in

00:10:20.214 --> 00:10:21.421 approaching and helping sickle

NOTE Confidence: 0.647538321

 $00{:}10{:}21.421 \dashrightarrow 00{:}10{:}23.325$ cell patients to use what we have,

NOTE Confidence: 0.647538321

 $00:10:23.330 \longrightarrow 00:10:25.290$ let's apply what we have to a population

NOTE Confidence: 0.647538321

 $00:10:25.290 \longrightarrow 00:10:27.040$ that needs it to bring about change.

NOTE Confidence: 0.647538321

 $00:10:27.040 \longrightarrow 00:10:28.570$ And so I do this through

NOTE Confidence: 0.647538321

 $00:10:28.570 \longrightarrow 00:10:29.080$ implementation science.

NOTE Confidence: 0.647538321

 $00:10:29.080 \longrightarrow 00:10:30.552$ So what's implementation science?

NOTE Confidence: 0.647538321

 $00:10:30.552 \longrightarrow 00:10:32.024$ It says that exactly,

NOTE Confidence: 0.647538321

 $00:10:32.030 \longrightarrow 00:10:34.086$ that it is the study of methods to

NOTE Confidence: 0.647538321

 $00{:}10{:}34.086 \to 00{:}10{:}35.736$ promote the increase of evidence

NOTE Confidence: 0.647538321

 $00:10:35.736 \longrightarrow 00:10:37.526$ based interventions and to usual

NOTE Confidence: 0.647538321

 $00:10:37.526 \longrightarrow 00:10:39.922$ care gives us the space to rigorously

NOTE Confidence: 0.647538321

 $00{:}10{:}39.922 \dashrightarrow 00{:}10{:}41.982$ understand what are the context in

NOTE Confidence: 0.647538321

 $00:10:41.982 \longrightarrow 00:10:44.142$ which we're applying these evidence

NOTE Confidence: 0.647538321

 $00:10:44.142 \longrightarrow 00:10:47.490$ based interventions to change make change.

 $00:10:47.490 \longrightarrow 00:10:48.915$ When we think about the

NOTE Confidence: 0.647538321

 $00{:}10{:}48.915 --> 00{:}10{:}49.485 \ {\rm translational\ pipeline},$

NOTE Confidence: 0.647538321

 $00:10:49.490 \longrightarrow 00:10:51.492$ we know that it spans from our

NOTE Confidence: 0.647538321

 $00:10:51.492 \longrightarrow 00:10:52.722$ basic scientist colleagues who

NOTE Confidence: 0.647538321

 $00:10:52.722 \longrightarrow 00:10:54.327$ are making clinical excuse me

NOTE Confidence: 0.647538321

00:10:54.327 --> 00:10:56.005 laboratory discoveries all the way

NOTE Confidence: 0.647538321

00:10:56.005 --> 00:10:57.369 to translation into community,

NOTE Confidence: 0.647538321

00:10:57.370 --> 00:10:59.594 much like our CSA

NOTE Confidence: 0.647538321

00:10:59.594 --> 00:11:00.706 dissemination implementation,

NOTE Confidence: 0.647538321

00:11:00.710 --> 00:11:02.742 science really centers around

NOTE Confidence: 0.647538321

00:11:02.742 --> 00:11:03.936 that T3T4 pathway,

NOTE Confidence: 0.647538321

 $00:11:03.936 \longrightarrow 00:11:05.994$ bringing this knowledge to the community.

NOTE Confidence: 0.93320974

 $00:11:08.380 \longrightarrow 00:11:10.000$ Particularly in sickle cell disease,

NOTE Confidence: 0.93320974

 $00:11:10.000 \longrightarrow 00:11:11.204$ this is really important,

NOTE Confidence: 0.93320974

00:11:11.204 --> 00:11:13.427 and So what this slide is showing

NOTE Confidence: 0.93320974

 $00:11:13.427 \longrightarrow 00:11:15.172$ is the timeline from understanding

 $00:11:15.172 \longrightarrow 00:11:17.740$ and results in a clinical trial to

NOTE Confidence: 0.93320974

00:11:17.740 --> 00:11:19.590 stop trial to clinical practice,

NOTE Confidence: 0.93320974

 $00:11:19.590 \longrightarrow 00:11:21.444$ and so in 1998 the STOP trial is the

NOTE Confidence: 0.93320974

 $00:11:21.444 \longrightarrow 00:11:23.062$ trial that showed us if we're able

NOTE Confidence: 0.93320974

00:11:23.062 --> 00:11:24.736 in sickle cell to screen patients

NOTE Confidence: 0.93320974

 $00:11:24.736 \longrightarrow 00:11:26.531$ using a transcranial Doppler for

NOTE Confidence: 0.93320974

 $00:11:26.531 \longrightarrow 00:11:28.326$ abnormal vasculature and we start

NOTE Confidence: 0.93320974

 $00{:}11{:}28.326 \dashrightarrow 00{:}11{:}29.758$ them on prophylactic transfusions.

NOTE Confidence: 0.93320974

 $00{:}11{:}29.760 \dashrightarrow 00{:}11{:}31.398$ We can stop them from having strokes.

NOTE Confidence: 0.93320974

 $00{:}11{:}31.400 \dashrightarrow 00{:}11{:}33.920$ OK, so this is an evidence based practice.

NOTE Confidence: 0.93320974

 $00{:}11{:}33.920 \dashrightarrow 00{:}11{:}36.580$ This is a multi center institutional study.

NOTE Confidence: 0.93320974

 $00:11:36.580 \longrightarrow 00:11:38.504$ OK, but in 2015.

NOTE Confidence: 0.93320974

 $00{:}11{:}38.504 \dashrightarrow 00{:}11{:}40.342$ Only 40% of patients were still

NOTE Confidence: 0.93320974

 $00:11:40.342 \longrightarrow 00:11:42.043$ getting screened. That's 17 years.

NOTE Confidence: 0.93320974

00:11:42.043 --> 00:11:43.727 That's a whole lifespan,

 $00:11:43.730 \longrightarrow 00:11:45.418$ and so for those of you all in

NOTE Confidence: 0.93320974

 $00{:}11{:}45.418 \dashrightarrow 00{:}11{:}46.679$ the audience who are parents.

NOTE Confidence: 0.93320974

 $00:11:46.680 \longrightarrow 00:11:48.066$ If your child had as thma or

NOTE Confidence: 0.93320974

 $00:11:48.066 \longrightarrow 00:11:48.990$ a life threatening disease,

NOTE Confidence: 0.93320974

 $00:11:48.990 \longrightarrow 00:11:50.796$ how long would you be willing to

NOTE Confidence: 0.93320974

00:11:50.796 --> 00:11:52.228 wait to understand like a life,

NOTE Confidence: 0.93320974

 $00{:}11{:}52.230 \dashrightarrow 00{:}11{:}53.964$ a life saving intervention or a

NOTE Confidence: 0.93320974

00:11:53.964 --> 00:11:55.461 therapy that could change the

NOTE Confidence: 0.93320974

 $00:11:55.461 \longrightarrow 00:11:56.597$ course of their disease.

NOTE Confidence: 0.93320974

 $00:11:56.600 \longrightarrow 00:11:59.050$ So for patients with sickle cell disease

NOTE Confidence: 0.93320974

 $00{:}11{:}59.050 \dashrightarrow 00{:}12{:}01.209$ who already have a short life span,

NOTE Confidence: 0.93320974

 $00:12:01.210 \longrightarrow 00:12:03.130$ time is of the absolute essence

NOTE Confidence: 0.93320974

 $00:12:03.130 \longrightarrow 00:12:05.010$ and decreasing in this timeline,

NOTE Confidence: 0.93320974

 $00:12:05.010 \longrightarrow 00:12:06.828$ that's the role of implementation science.

NOTE Confidence: 0.93320974

 $00:12:06.830 \longrightarrow 00:12:07.970$ So that's why it's important

NOTE Confidence: 0.93320974

 $00:12:07.970 \longrightarrow 00:12:09.310$ in the work that I do.

00:12:09.310 --> 00:12:11.571 Because when we have a population with

NOTE Confidence: 0.93320974

 $00{:}12{:}11.571 \dashrightarrow 00{:}12{:}13.559$ limited interventions and a sense of urgency,

NOTE Confidence: 0.93320974

 $00:12:13.560 \longrightarrow 00:12:15.595$ having the tools and methodologic

NOTE Confidence: 0.93320974

 $00:12:15.595 \longrightarrow 00:12:17.630$ rigor to decrease that timeline

NOTE Confidence: 0.93320974

 $00:12:17.696 \longrightarrow 00:12:19.199$ is critically important.

NOTE Confidence: 0.93320974

 $00:12:19.200 \longrightarrow 00:12:21.696$ We also know that our CSA works and

NOTE Confidence: 0.93320974

 $00:12:21.696 \longrightarrow 00:12:23.419$ collaborates with implementation of

NOTE Confidence: 0.93320974

 $00:12:23.419 \longrightarrow 00:12:25.499$ scientists to promote Health Equity,

NOTE Confidence: 0.93320974

 $00:12:25.500 \longrightarrow 00:12:27.500$ so I think it's been a constant theme

NOTE Confidence: 0.93320974

 $00:12:27.500 \longrightarrow 00:12:28.858$ running throughout the program today.

NOTE Confidence: 0.93320974

 $00{:}12{:}28.860 \dashrightarrow 00{:}12{:}30.956$ But three main ways that they do that

NOTE Confidence: 0.93320974

 $00:12:30.956 \longrightarrow 00:12:33.008$ is through community engagement and

NOTE Confidence: 0.93320974

 $00{:}12{:}33.008 \dashrightarrow 00{:}12{:}34.576$ partnership through it that workforce

NOTE Confidence: 0.93320974

00:12:34.576 --> 00:12:36.650 not just myself as a junior faculty,

NOTE Confidence: 0.93320974

 $00:12:36.650 \longrightarrow 00:12:38.232$ but we learned a lot about interns

 $00:12:38.232 \longrightarrow 00:12:40.031$ who are being trained up in this

NOTE Confidence: 0.93320974

 $00{:}12{:}40.031 \dashrightarrow 00{:}12{:}41.366$ work and then financial support,

NOTE Confidence: 0.93320974

 $00{:}12{:}41.370 \dashrightarrow 00{:}12{:}43.053$ which I think we all kind of talked about.

NOTE Confidence: 0.93320974

 $00:12:43.060 \longrightarrow 00:12:46.329$ The scientists who are presenting our work.

NOTE Confidence: 0.93320974

 $00:12:46.330 \longrightarrow 00:12:48.350$ So implementation science a lot

NOTE Confidence: 0.93320974

 $00{:}12{:}48.350 \dashrightarrow 00{:}12{:}50.825$ is executed through the use of

NOTE Confidence: 0.93320974

 $00{:}12{:}50.825 \dashrightarrow 00{:}12{:}52.740$ frameworks and models which help

NOTE Confidence: 0.93320974

 $00:12:52.740 \longrightarrow 00:12:55.170$ to give structure to to our work.

NOTE Confidence: 0.93320974

00:12:55.170 --> 00:12:56.146 So for my project,

NOTE Confidence: 0.93320974

00:12:56.146 --> 00:12:58.169 which I'm going to talk about a bit now,

NOTE Confidence: 0.93320974

 $00{:}12{:}58.170 \dashrightarrow 00{:}13{:}00.498$ I used to integrate it promoting

NOTE Confidence: 0.93320974

 $00:13:00.498 \longrightarrow 00:13:02.050$ action on healthcare research,

NOTE Confidence: 0.93320974

 $00{:}13{:}02.050 \dashrightarrow 00{:}13{:}03.232$ implementation and healthcare

NOTE Confidence: 0.93320974

00:13:03.232 --> 00:13:04.808 sciences or IPAROS framework.

NOTE Confidence: 0.93320974

 $00{:}13{:}04.810 \dashrightarrow 00{:}13{:}06.574$ And So what this framework does is

NOTE Confidence: 0.93320974

 $00:13:06.574 \longrightarrow 00:13:08.679$ it looks at the innovation of the

00:13:08.679 --> 00:13:10.294 the intervention of the recipients

NOTE Confidence: 0.93320974

 $00{:}13{:}10.294 \dashrightarrow 00{:}13{:}12.012$ of the intervention and context

NOTE Confidence: 0.93320974

 $00:13:12.012 \longrightarrow 00:13:14.016$ and the role of facilitation and

NOTE Confidence: 0.93320974

 $00:13:14.020 \longrightarrow 00:13:15.630$ successful implementation of this work.

NOTE Confidence: 0.93320974

 $00:13:15.630 \longrightarrow 00:13:16.920$ So I'm looking at these.

NOTE Confidence: 0.93320974

 $00:13:16.920 \longrightarrow 00:13:18.072$ When it's based guidelines,

NOTE Confidence: 0.93320974

 $00:13:18.072 \longrightarrow 00:13:20.186$ I want to understand all of these

NOTE Confidence: 0.93320974

00:13:20.186 --> 00:13:22.166 things and how to implement them

NOTE Confidence: 0.93320974

00:13:22.166 --> 00:13:23.156 more more expeditiously.

NOTE Confidence: 0.93320974

00:13:23.160 --> 00:13:24.792 So at first did this by taking a

NOTE Confidence: 0.93320974

 $00:13:24.792 \longrightarrow 00:13:26.325$ look at our current transition

NOTE Confidence: 0.93320974

 $00:13:26.325 \longrightarrow 00:13:28.110$ processes and understanding of the

NOTE Confidence: 0.93320974

 $00{:}13{:}28.110 \dashrightarrow 00{:}13{:}30.255$ guideline So what I did was I did

NOTE Confidence: 0.93320974

 $00:13:30.255 \longrightarrow 00:13:31.720$ a qualitative study with pediatric

NOTE Confidence: 0.93320974

00:13:31.720 --> 00:13:33.880 hematology and adult hematology

 $00:13:33.880 \longrightarrow 00:13:36.580$ providers to get their knowledge

NOTE Confidence: 0.93320974

00:13:36.655 --> 00:13:38.275 about these AP guidelines had you

NOTE Confidence: 0.93320974

 $00:13:38.275 \longrightarrow 00:13:40.131$ heard of them are you using them

NOTE Confidence: 0.93320974

00:13:40.131 --> 00:13:41.763 what strategies helped you to use

NOTE Confidence: 0.93320974

 $00:13:41.763 \longrightarrow 00:13:43.444$ them are they effective do you

NOTE Confidence: 0.93320974

 $00:13:43.444 \longrightarrow 00:13:45.152$ agree with them and then we use

NOTE Confidence: 0.93320974

 $00{:}13{:}45.152 \dashrightarrow 00{:}13{:}46.490$ the I Paris framework to frame

NOTE Confidence: 0.777398986153846

 $00:13:46.538 \longrightarrow 00:13:47.933$ the role of? What is facilitation

NOTE Confidence: 0.777398986153846

 $00:13:47.933 \longrightarrow 00:13:49.830$ in terms of how we can implement

NOTE Confidence: 0.777398986153846

 $00:13:49.882 \longrightarrow 00:13:51.109$ this more expeditiously.

NOTE Confidence: 0.90967003368421

 $00:13:53.750 \longrightarrow 00:13:55.773$ So what we found are three major

NOTE Confidence: 0.90967003368421

 $00:13:55.773 \longrightarrow 00:13:58.354$ areas in which our guidelines were not

NOTE Confidence: 0.90967003368421

 $00:13:58.354 \longrightarrow 00:14:00.409$ able to be successfully implemented.

NOTE Confidence: 0.90967003368421

 $00:14:00.410 \longrightarrow 00:14:03.198$ So a lot of it had to do with lack of

NOTE Confidence: 0.90967003368421

00:14:03.198 --> 00:14:05.529 buy in support and location and Co.

NOTE Confidence: 0.90967003368421

 $00:14:05.530 \longrightarrow 00:14:07.014$ Location of these clinics.

 $00:14:07.014 \longrightarrow 00:14:09.075$ But we also asked them, hey,

NOTE Confidence: 0.90967003368421

 $00:14:09.075 \longrightarrow 00:14:10.715$ what was working well for you and so

NOTE Confidence: 0.90967003368421

 $00:14:10.715 \longrightarrow 00:14:12.237$ that was these readiness assessments

NOTE Confidence: 0.90967003368421

 $00:14:12.237 \longrightarrow 00:14:13.822$ and having these integrated clinics

NOTE Confidence: 0.90967003368421

 $00:14:13.822 \longrightarrow 00:14:15.817$ and ways in which we can improve

NOTE Confidence: 0.90967003368421

 $00{:}14{:}15.817 \dashrightarrow 00{:}14{:}16.905$ like our process standardization

NOTE Confidence: 0.90967003368421

00:14:16.910 --> 00:14:18.710 and then identifying, again,

NOTE Confidence: 0.90967003368421

 $00{:}14{:}18.710 \dashrightarrow 00{:}14{:}20.510$ facilitation key personnel involved

NOTE Confidence: 0.90967003368421

 $00:14:20.510 \longrightarrow 00:14:23.198$ in this work that could help on

NOTE Confidence: 0.90967003368421

 $00{:}14{:}23.198 \dashrightarrow 00{:}14{:}24.918$ the uptake of these guidelines.

NOTE Confidence: 0.90967003368421

00:14:24.920 --> 00:14:25.848 Interestingly enough,

NOTE Confidence: 0.90967003368421

00:14:25.848 --> 00:14:27.240 but not surprisingly,

NOTE Confidence: 0.90967003368421

 $00:14:27.240 \longrightarrow 00:14:29.144$ we also found factors that we weren't

NOTE Confidence: 0.90967003368421

 $00:14:29.144 \longrightarrow 00:14:31.166$ looking for that were relevant to

NOTE Confidence: 0.90967003368421

 $00:14:31.166 \longrightarrow 00:14:32.698$ these guideline implemented guideline

 $00:14:32.698 \longrightarrow 00:14:34.558$ implementation and so now we would.

NOTE Confidence: 0.90967003368421

 $00:14:34.560 \longrightarrow 00:14:36.414$ We would categorize these as a

NOTE Confidence: 0.90967003368421

 $00:14:36.414 \longrightarrow 00:14:37.650$ social determinants of health.

NOTE Confidence: 0.90967003368421

 $00:14:37.650 \longrightarrow 00:14:39.138$ But there are so many factors

NOTE Confidence: 0.90967003368421

 $00:14:39.138 \longrightarrow 00:14:40.737$ outside of our hospital outside of

NOTE Confidence: 0.90967003368421

00:14:40.737 --> 00:14:42.137 our clinic where these guidelines

NOTE Confidence: 0.90967003368421

00:14:42.137 --> 00:14:43.830 are supposed to be implemented that

NOTE Confidence: 0.90967003368421

 $00:14:43.830 \longrightarrow 00:14:45.426$ really impact the way that we're

NOTE Confidence: 0.90967003368421

 $00:14:45.426 \longrightarrow 00:14:47.215$ able to successfully care for our

NOTE Confidence: 0.90967003368421

 $00:14:47.215 \longrightarrow 00:14:48.730$ patients in the clinic setting.

NOTE Confidence: 0.851898085625

 $00:14:53.710 \longrightarrow 00:14:55.758$ So now what I'm doing is trying to

NOTE Confidence: 0.851898085625

 $00:14:55.758 \longrightarrow 00:14:57.377$ figure out optimal implementation

NOTE Confidence: 0.851898085625

 $00:14:57.377 \longrightarrow 00:14:59.465$ strategies for these guidelines,

NOTE Confidence: 0.851898085625

 $00:14:59.470 \longrightarrow 00:15:00.962$ so implementation strategies that

NOTE Confidence: 0.851898085625

 $00:15:00.962 \longrightarrow 00:15:03.200$ are methods and tools with which

NOTE Confidence: 0.851898085625

 $00:15:03.265 \longrightarrow 00:15:05.095$ we use to increase these guideline

 $00:15:05.095 \longrightarrow 00:15:07.837$ uptake and so there is a cadra of

NOTE Confidence: 0.851898085625

 $00:15:07.837 \longrightarrow 00:15:08.929$ evidence based recommendations,

NOTE Confidence: 0.851898085625

 $00:15:08.930 \longrightarrow 00:15:10.792$ but maybe all of them aren't applicable

NOTE Confidence: 0.851898085625

 $00:15:10.792 \longrightarrow 00:15:13.023$ to this and we use what we found

NOTE Confidence: 0.851898085625

 $00{:}15{:}13.023 \dashrightarrow 00{:}15{:}14.403$ the determinants of barriers and

NOTE Confidence: 0.851898085625

 $00:15:14.460 \longrightarrow 00:15:16.338$ facilitators from that prior work to

NOTE Confidence: 0.851898085625

 $00:15:16.338 \longrightarrow 00:15:18.152$ identify which ones are most important

NOTE Confidence: 0.851898085625

 $00{:}15{:}18.152 \dashrightarrow 00{:}15{:}20.119$ and that and that the initial pass.

NOTE Confidence: 0.851898085625

00:15:20.120 --> 00:15:21.744 We identified 52 right?

NOTE Confidence: 0.851898085625

 $00:15:21.744 \longrightarrow 00:15:23.774$ So the work I'm doing?

NOTE Confidence: 0.851898085625

00:15:23.780 --> 00:15:25.628 Now is to narrow it down amongst

NOTE Confidence: 0.851898085625

 $00:15:25.628 \longrightarrow 00:15:27.190$ pediatric and adult hematologists.

NOTE Confidence: 0.851898085625

 $00{:}15{:}27.190 \dashrightarrow 00{:}15{:}28.462$ Which one of these have which

NOTE Confidence: 0.851898085625

 $00:15:28.462 \longrightarrow 00:15:29.889$ of these have been most useful?

NOTE Confidence: 0.851898085625

 $00:15:29.890 \longrightarrow 00:15:31.465$ Which one of these have you tried?

 $00:15:31.470 \longrightarrow 00:15:33.220$ Which ones have you not tried at

NOTE Confidence: 0.851898085625

 $00{:}15{:}33.220 \dashrightarrow 00{:}15{:}34.950$ all and the goal of the next step in

NOTE Confidence: 0.851898085625

 $00:15:34.950 \longrightarrow 00:15:36.595$ this work is to put those together

NOTE Confidence: 0.851898085625

 $00:15:36.595 \longrightarrow 00:15:37.825$ with these guidelines to create

NOTE Confidence: 0.851898085625

 $00:15:37.877 \longrightarrow 00:15:38.786$ an implementation facilitation

NOTE Confidence: 0.851898085625

00:15:38.786 --> 00:15:40.604 guide which I plan on planning,

NOTE Confidence: 0.851898085625

 $00:15:40.610 \longrightarrow 00:15:41.742$ piloting here at Yale.

NOTE Confidence: 0.851898085625

 $00:15:41.742 \longrightarrow 00:15:44.586$ So the idea is to say what are your

NOTE Confidence: 0.851898085625

00:15:44.586 --> 00:15:47.106 specific needs as a sickle cell community?

NOTE Confidence: 0.851898085625

00:15:47.110 --> 00:15:49.308 How do your guidelines fit with these?

NOTE Confidence: 0.851898085625

 $00:15:49.310 \longrightarrow 00:15:50.650$ What are the strategies we

NOTE Confidence: 0.851898085625

 $00:15:50.650 \longrightarrow 00:15:51.990$ can use to optimize success?

NOTE Confidence: 0.883319244166667

 $00:15:54.220 \longrightarrow 00:15:57.308$ My work now works on developing the processes

NOTE Confidence: 0.883319244166667

 $00{:}15{:}57.308 \to 00{:}15{:}59.880$ to improve guideline implementation,

NOTE Confidence: 0.883319244166667

 $00:15:59.880 \longrightarrow 00:16:02.568$ but the goal is to develop structure

NOTE Confidence: 0.883319244166667

 $00:16:02.568 \longrightarrow 00:16:04.607$ transition programs that will overall

 $00:16:04.607 \longrightarrow 00:16:06.652$ ultimately improve outcomes in our

NOTE Confidence: 0.883319244166667

 $00{:}16{:}06.652 \dashrightarrow 00{:}16{:}09.209$ young a dults with sickle cell disease.

NOTE Confidence: 0.883319244166667

 $00:16:09.210 \longrightarrow 00:16:11.149$ And we know, and I'm I'm biased.

NOTE Confidence: 0.883319244166667

00:16:11.150 --> 00:16:12.705 I know that that truly

NOTE Confidence: 0.883319244166667

 $00:16:12.705 \longrightarrow 00:16:13.949$ adolescents and young adults.

NOTE Confidence: 0.883319244166667

00:16:13.950 --> 00:16:15.658 I believe they're at a critical juncture

NOTE Confidence: 0.883319244166667

00:16:15.658 --> 00:16:17.505 in which we can optimize equity and

NOTE Confidence: 0.883319244166667

 $00{:}16{:}17.505 \dashrightarrow 00{:}16{:}19.107$ support them and the decisions we

NOTE Confidence: 0.883319244166667

 $00{:}16{:}19.158 \dashrightarrow 00{:}16{:}20.846$ make and how the support that we show

NOTE Confidence: 0.883319244166667

 $00{:}16{:}20.846 \dashrightarrow 00{:}16{:}22.830$ them at this very pivotal time in

NOTE Confidence: 0.883319244166667

00:16:22.830 --> 00:16:25.265 their life can have long term positive

NOTE Confidence: 0.883319244166667

 $00:16:25.265 \longrightarrow 00:16:28.580$ implications for how they move forward.

NOTE Confidence: 0.883319244166667

 $00{:}16{:}28.580 \rightarrow 00{:}16{:}30.155$ And so with the hind sight of knowledge,

NOTE Confidence: 0.883319244166667

 $00:16:30.160 \longrightarrow 00:16:31.336$ when you think about a patient

NOTE Confidence: 0.883319244166667

 $00:16:31.336 \longrightarrow 00:16:32.590$ that I mentioned earlier, like AG,

 $00:16:32.590 \longrightarrow 00:16:34.235$ how would you treat him if you

NOTE Confidence: 0.883319244166667

 $00{:}16{:}34.235 \dashrightarrow 00{:}16{:}35.280$ were his clinician,

NOTE Confidence: 0.883319244166667

00:16:35.280 --> 00:16:36.198 how would you work with him?

NOTE Confidence: 0.883319244166667

 $00:16:36.200 \longrightarrow 00:16:38.300$ Because despite all of those challenges,

NOTE Confidence: 0.883319244166667

 $00{:}16{:}38.300 \dashrightarrow 00{:}16{:}40.286$ I'm that I described he managed

NOTE Confidence: 0.883319244166667

 $00:16:40.286 \longrightarrow 00:16:42.028$ to establish a regular healthcare

NOTE Confidence: 0.883319244166667

 $00:16:42.028 \longrightarrow 00:16:43.768$ with our clinic he got.

NOTE Confidence: 0.883319244166667

 $00{:}16{:}43.770 \dashrightarrow 00{:}16{:}45.597$ He was in a behavioral health care

NOTE Confidence: 0.883319244166667

 $00{:}16{:}45.597 \dashrightarrow 00{:}16{:}47.160$ program to navigate his own trauma.

NOTE Confidence: 0.883319244166667 00:16:47.160 --> 00:16:47.650 We worked, NOTE Confidence: 0.883319244166667

00:16:47.650 --> 00:16:49.610 he worked with our social worker to find

NOTE Confidence: 0.883319244166667

 $00:16:49.662 \longrightarrow 00:16:51.480$ stable housing and employment and before

NOTE Confidence: 0.883319244166667

00:16:51.480 --> 00:16:53.508 his untimely death due to gun violence,

NOTE Confidence: 0.883319244166667

 $00{:}16{:}53.510 \dashrightarrow 00{:}16{:}55.218$ he was on a pathway to success.

NOTE Confidence: 0.883319244166667

 $00:16:55.220 \longrightarrow 00:16:56.920$ So he's very, very important.

NOTE Confidence: 0.883319244166667

 $00{:}16{:}56.920 \dashrightarrow 00{:}16{:}58.670$ He's a great example for me because.

00:16:58.670 --> 00:17:00.322 Shows us if we really wrap around

NOTE Confidence: 0.883319244166667

 $00{:}17{:}00.322 \dashrightarrow 00{:}17{:}02.140$ in a rigorous way our young people,

NOTE Confidence: 0.883319244166667

 $00:17:02.140 \longrightarrow 00:17:04.960$ they can really achieve success.

NOTE Confidence: 0.883319244166667

00:17:04.960 --> 00:17:06.472 And I asked that because I truly

NOTE Confidence: 0.883319244166667

00:17:06.472 --> 00:17:07.691 believe that our adolescents and

NOTE Confidence: 0.883319244166667

 $00:17:07.691 \longrightarrow 00:17:09.251$ young adults with sickle cell disease

NOTE Confidence: 0.883319244166667

 $00:17:09.251 \longrightarrow 00:17:10.950$ are a microcosm of how we treat

NOTE Confidence: 0.883319244166667

 $00:17:10.950 \longrightarrow 00:17:12.468$ sickle cell patients as a whole,

NOTE Confidence: 0.883319244166667

 $00:17:12.468 \longrightarrow 00:17:14.408$ but also the most vulnerable

NOTE Confidence: 0.883319244166667

 $00:17:14.408 \longrightarrow 00:17:15.572$ populations among us.

NOTE Confidence: 0.883319244166667

00:17:15.580 --> 00:17:17.533 And so the strides that we make with them,

NOTE Confidence: 0.883319244166667

 $00:17:17.540 \longrightarrow 00:17:19.640$ the care and investment to rigorous

NOTE Confidence: 0.883319244166667

 $00{:}17{:}19.640 \dashrightarrow 00{:}17{:}21.911$ research that we that we make

NOTE Confidence: 0.883319244166667

00:17:21.911 --> 00:17:23.511 regarding this population has

NOTE Confidence: 0.883319244166667

 $00:17:23.511 \longrightarrow 00:17:25.420$ greater implications for us all.

 $00:17:25.420 \longrightarrow 00:17:28.388$ And I'll end with this slide because.

NOTE Confidence: 0.883319244166667

 $00:17:28.390 \longrightarrow 00:17:30.470$ One of the things about the work that

NOTE Confidence: 0.883319244166667

 $00:17:30.470 \longrightarrow 00:17:33.091$ I do helps me to understand a bit more

NOTE Confidence: 0.883319244166667

00:17:33.091 --> 00:17:35.678 about how and and the patient that I

NOTE Confidence: 0.883319244166667

 $00:17:35.678 \longrightarrow 00:17:37.100$ mentioned help me to understand how

NOTE Confidence: 0.883319244166667

 $00{:}17{:}37.100 \dashrightarrow 00{:}17{:}39.171$ the work that I do in treatment with

NOTE Confidence: 0.883319244166667

 $00:17:39.171 \longrightarrow 00:17:41.327$ patients really fits into a greater context.

NOTE Confidence: 0.883319244166667

 $00:17:41.330 \longrightarrow 00:17:42.818$ We know that no matter where

NOTE Confidence: 0.883319244166667

 $00:17:42.818 \longrightarrow 00:17:44.601$ we are along this pipeline, OK,

NOTE Confidence: 0.883319244166667

00:17:44.601 --> 00:17:46.107 whether we are creating the laws,

NOTE Confidence: 0.88331924416666700:17:46.110 --> 00:17:46.538 regulations,

NOTE Confidence: 0.883319244166667 00:17:46.538 --> 00:17:47.394 and policies,

NOTE Confidence: 0.883319244166667

00:17:47.394 --> 00:17:49.962 whether we are affecting the living

NOTE Confidence: 0.883319244166667

 $00:17:49.962 \longrightarrow 00:17:51.890$ environment or whether we are

NOTE Confidence: 0.883319244166667

 $00:17:51.890 \longrightarrow 00:17:53.685$ understanding the risk factors and

NOTE Confidence: 0.883319244166667

 $00:17:53.685 \longrightarrow 00:17:55.275$ diagnosis and treatment ultimate

 $00{:}17{:}55.275 \dashrightarrow 00{:}17{:}57.230$ outcomes in a specific disease.

NOTE Confidence: 0.883319244166667

 $00:17:57.230 \longrightarrow 00:17:58.886$ Equity is along that whole piece.

NOTE Confidence: 0.883319244166667

00:17:58.890 --> 00:18:00.658 So I wanted to end with this just

NOTE Confidence: 0.883319244166667

 $00:18:00.658 \longrightarrow 00:18:02.457$ to implore you all in the audience

NOTE Confidence: 0.883319244166667

00:18:02.457 --> 00:18:04.077 to think carefully about the work

NOTE Confidence: 0.883319244166667

 $00:18:04.077 \longrightarrow 00:18:05.904$ you do and where that fits on

NOTE Confidence: 0.883319244166667

00:18:05.904 --> 00:18:06.737 this HealthEquity pipeline.

NOTE Confidence: 0.883319244166667

 $00{:}18{:}06.737 \dashrightarrow 00{:}18{:}08.886$ I think we want to be intentional

NOTE Confidence: 0.883319244166667

 $00:18:08.886 \longrightarrow 00:18:10.550$ on the work that we do,

NOTE Confidence: 0.883319244166667

00:18:10.550 --> 00:18:12.135 because if we're not making

NOTE Confidence: 0.883319244166667

 $00:18:12.135 \longrightarrow 00:18:13.086$ a conscious investment,

NOTE Confidence: 0.883319244166667

 $00:18:13.090 \longrightarrow 00:18:14.098$ we're choosing to divest.

NOTE Confidence: 0.883319244166667

 $00{:}18{:}14.098 \dashrightarrow 00{:}18{:}16.411$ And so I just wanted to take a moment

NOTE Confidence: 0.883319244166667

00:18:16.411 --> 00:18:18.140 to end with that and encourage you

NOTE Confidence: 0.883319244166667

 $00:18:18.198 \longrightarrow 00:18:20.039$ all wherever you are to leverage the

00:18:20.039 --> 00:18:22.510 power you have for the importance of equity,

NOTE Confidence: 0.883319244166667

 $00:18:22.510 \longrightarrow 00:18:24.268$ and so that's all I have.

NOTE Confidence: 0.883319244166667

 $00:18:24.270 \longrightarrow 00:18:25.730$ I want to thank Marcella,

NOTE Confidence: 0.871419336666667

00:18:25.730 --> 00:18:27.424 but I'm very much for this opportunity

NOTE Confidence: 0.871419336666667

 $00:18:27.424 \longrightarrow 00:18:29.269$ and for her continuous mentorship.

NOTE Confidence: 0.871419336666667

 $00{:}18{:}29.270 \dashrightarrow 00{:}18{:}31.020$ Mentor Allison Kinga watched you,

NOTE Confidence: 0.871419336666667

 $00:18:31.020 \longrightarrow 00:18:32.240$ my peers, and adult college.

NOTE Confidence: 0.871419336666667

 $00:18:32.240 \longrightarrow 00:18:33.690$ Obviously the Yale Center for

NOTE Confidence: 0.871419336666667

00:18:33.690 --> 00:18:34.560 Clinical Investigation was

NOTE Confidence: 0.871419336666667

 $00:18:34.560 \longrightarrow 00:18:36.017$ supporting me and doing this work,

NOTE Confidence: 0.871419336666667

 $00{:}18{:}36.020 \dashrightarrow 00{:}18{:}38.230$ and more than any body in

NOTE Confidence: 0.871419336666667

 $00:18:38.230 \longrightarrow 00:18:39.998$ my patients and families.