WEBVTT

NOTE duration:"01:26:56.4800000"

NOTE recognizability:0.436

NOTE language:en-us

NOTE Confidence: 0.32690978

00:00:00.000 --> 00:00:01.130 All right. So we're happening.

NOTE Confidence: 0.32690978

00:00:01.130 --> 00:00:02.224 Yes, we're happening.

NOTE Confidence: 0.32690978

00:00:02.224 --> 00:00:03.520 Fantastic. Well, welcome

NOTE Confidence: 0.32690978

00:00:03.520 --> 00:00:05.998 everybody. Thanks so much for coming.

NOTE Confidence: 0.32690978

00:00:06.000 --> 00:00:07.248 I'll speak just for a

NOTE Confidence: 0.32690978

00:00:07.248 --> 00:00:08.080 minute and then introduce

NOTE Confidence: 0.32690978

00:00:08.080 --> 00:00:10.200 our our guest for tonight.

NOTE Confidence: 0.32690978

00:00:10.200 --> 00:00:11.140 My name is Mark Mercury.

NOTE Confidence: 0.32690978

00:00:11.140 --> 00:00:12.352 I'm director of the Program

NOTE Confidence: 0.32690978

00:00:12.352 --> 00:00:13.506 for Biomedical Ethics here.

NOTE Confidence: 0.32690978

00:00:13.506 --> 00:00:14.918 And I'll start with

NOTE Confidence: 0.32690978

00:00:15.680 --> 00:00:16.880 a very brief story,

NOTE Confidence: 0.32690978

00:00:17.520 --> 00:00:20.600 very brief. So in

NOTE Confidence: 0.32690978

00:00:20.600 --> 00:00:23.900 March of 2020, when the pandemic was very,

NOTE Confidence: 0.32690978

00:00:23.900 --> 00:00:25.835 it seemed very suddenly upon us and

NOTE Confidence: 0.32690978

00:00:25.835 --> 00:00:27.800 we saw what had happened in Italy. We

NOTE Confidence: 0.32690978

00:00:27.800 --> 00:00:29.116 saw what was happening in New York.

NOTE Confidence: 0.39691356

00:00:30.000 --> 00:00:31.358 I reached out to the chief medical

NOTE Confidence: 0.39691356

00:00:31.360 --> 00:00:33.358 officer of the hospital and said,

NOTE Confidence: 0.39691356

00:00:33.360 --> 00:00:34.608 do we have a plan if we run

NOTE Confidence: 0.39691356

00:00:34.608 --> 00:00:36.120 out of stuff like ventilators?

NOTE Confidence: 0.39691356

00:00:36.800 --> 00:00:38.615 And he said, well, no, we don't, But

NOTE Confidence: 0.39691356

00:00:38.615 --> 00:00:39.960 there's some people who are working on it

NOTE Confidence: 0.39691356

00:00:40.880 --> 00:00:41.996 and I'd like you to be part of that.

NOTE Confidence: 0.39691356

00:00:42.000 --> 00:00:43.040 And I said sure.

NOTE Confidence: 0.39691356

00:00:43.040 --> 00:00:45.586 So he assembled and the the

NOTE Confidence: 0.39691356

00:00:45.586 --> 00:00:46.372 Ethics Committee leadership

NOTE Confidence: 0.39691356

00:00:46.372 --> 00:00:47.840 were here with us tonight,

NOTE Confidence: 0.39691356

00:00:47.840 --> 00:00:49.280 assembled a small group of

NOTE Confidence: 0.39691356

00:00:49.280 --> 00:00:50.720 folks who were then reporting

NOTE Confidence: 0.39691356

00:00:50.720 --> 00:00:52.238 to a large group of folks.

NOTE Confidence: 0.39691356

00:00:52.240 --> 00:00:53.240 And we very quickly,

NOTE Confidence: 0.39691356

00:00:54.520 --> 00:00:55.384 it felt very quickly,

NOTE Confidence: 0.39691356

00:00:55.384 --> 00:00:57.112 we tried to work up a price of

NOTE Confidence: 0.39691356

00:00:57.112 --> 00:00:58.678 standard of care, a triage plan.

NOTE Confidence: 0.36581042

00:00:59.040 --> 00:01:00.176 What are we going to do when there's

NOTE Confidence: 0.36581042

00:01:00.176 --> 00:01:01.223 two people who need a ventilator and

NOTE Confidence: 0.36581042

00:01:01.223 --> 00:01:02.320 we don't have only one ventilator?

NOTE Confidence: 0.36581042

00:01:02.640 --> 00:01:04.000 What exactly is the plan?

NOTE Confidence: 0.36581042

00:01:04.520 --> 00:01:05.836 And of course it wasn't just Yale.

NOTE Confidence: 0.36581042

00:01:05.840 --> 00:01:06.612 New Haven Hospital didn't

NOTE Confidence: 0.36581042

00:01:06.612 --> 00:01:07.932 have a specific plan.

NOTE Confidence: 0.36581042

00:01:07.932 --> 00:01:09.072 People all over the country

NOTE Confidence: 0.36581042

00:01:09.072 --> 00:01:10.638 were caught off guard,

NOTE Confidence: 0.36581042

00:01:10.640 --> 00:01:11.380 some more than others.

NOTE Confidence: 0.36581042

00:01:11.380 --> 00:01:12.600 We had no guidance specifically

NOTE Confidence: 0.36581042

00:01:12.600 --> 00:01:14.040 from the state.

NOTE Confidence: 0.36581042

00:01:14.040 --> 00:01:15.870 The health system need to put

NOTE Confidence: 0.36581042

00:01:15.870 --> 00:01:16.480 something together.

NOTE Confidence: 0.36581042

00:01:16.480 --> 00:01:18.280 And it was a very remarkable time for

NOTE Confidence: 0.36581042

00:01:18.280 --> 00:01:19.516 a lot of reasons. We had

NOTE Confidence: 0.36581042

00:01:20.560 --> 00:01:22.245 terrific leadership here in particular

NOTE Confidence: 0.36581042

00:01:22.245 --> 00:01:24.354 by Ben Tolch and who really organized

NOTE Confidence: 0.36581042

00:01:24.354 --> 00:01:25.930 our efforts here to come up with the

NOTE Confidence: 0.36581042

00:01:25.976 --> 00:01:27.975 crisis standards of care and many of

NOTE Confidence: 0.36581042

00:01:27.975 --> 00:01:29.680 the people who worked on those are here.

NOTE Confidence: 0.36581042

00:01:29.680 --> 00:01:31.122 But there was a lot of cooperation

NOTE Confidence: 0.36581042

00:01:31.122 --> 00:01:32.598 between people who were working on these

NOTE Confidence: 0.674992

00:01:32.600 --> 00:01:34.021 things. And I'll tell you I was

NOTE Confidence: 0.674992

00:01:34.021 --> 00:01:35.399 leading a double life at the time.

NOTE Confidence: 0.674992

00:01:35.760 --> 00:01:38.520 I was chief of neonatology and

NOTE Confidence: 0.674992

00:01:39.600 --> 00:01:41.200 and running this ethics program

NOTE Confidence: 0.674992

00:01:41.200 --> 00:01:42.760 And so I was doing both.

NOTE Confidence: 0.674992

00:01:42.760 --> 00:01:44.608 And one of the things that

NOTE Confidence: 0.674992

00:01:44.608 --> 00:01:46.205 fascinated me is thankfully there

NOTE Confidence: 0.674992

00:01:46.205 --> 00:01:48.017 was a clinical director for the

NOTE Confidence: 0.674992

00:01:48.017 --> 00:01:50.438 newborn ICU and and an acting chief

NOTE Confidence: 0.674992

00:01:50.440 --> 00:01:52.078 during that time as well because.

NOTE Confidence: 0.674992

00:01:52.080 --> 00:01:53.884 But it seemed like the CDC every

NOTE Confidence: 0.674992

00:01:53.884 --> 00:01:56.712 5 minutes was coming out with new

NOTE Confidence: 0.674992

00:01:56.712 --> 00:01:57.902 recommendations for what we're supposed

NOTE Confidence: 0.674992

00:01:57.902 --> 00:01:59.973 to do which babies we isolate how.

NOTE Confidence: 0.674992

00:01:59.973 --> 00:02:01.224 And thankfully the NICU was

NOTE Confidence: 0.674992

00:02:01.224 --> 00:02:02.830 largely spared trouble from COVID.

NOTE Confidence: 0.674992

00:02:02.830 --> 00:02:05.524 Every time you turn around CDC had new

NOTE Confidence: 0.674992

00:02:05.524 --> 00:02:06.880 recommendations making everybody crazy.

NOTE Confidence: 0.674992

00:02:06.880 --> 00:02:08.600 But the flip side of that when it came to

NOTE Confidence: 0.674992

00:02:08.600 --> 00:02:10.840 the allocation of the scarce resources,

NOTE Confidence: 0.674992

00:02:10.840 --> 00:02:13.000 when it came to crisis standards

NOTE Confidence: 0.674992

00:02:13.066 --> 00:02:14.516 of care or triage plan.

NOTE Confidence: 0.674992

00:02:14.520 --> 00:02:16.720 The federal government was quiet as

NOTE Confidence: 0.674992

00:02:16.720 --> 00:02:18.876 a mouse and we were an occupancy.

NOTE Confidence: 0.674992

00:02:18.880 --> 00:02:20.580 Where's the CDC on this one?

NOTE Confidence: 0.674992

00:02:20.580 --> 00:02:22.120 And so we were doing our best.

NOTE Confidence: 0.674992

00:02:22.120 --> 00:02:24.506 But what happened was there were others,

NOTE Confidence: 0.674992

00:02:24.506 --> 00:02:26.277 some very smart people from all over

NOTE Confidence: 0.674992

00:02:26.277 --> 00:02:28.084 the country and all over the world who

NOTE Confidence: 0.674992

00:02:28.084 --> 00:02:29.560 were working on these same questions.

NOTE Confidence: 0.674992

00:02:29.560 --> 00:02:32.638 And so we found each other online on Zoom,

NOTE Confidence: 0.674992

00:02:32.640 --> 00:02:34.438 and we got help from each other a lot.

NOTE Confidence: 0.674992

00:02:34.438 --> 00:02:36.940 And so it was during that time that

NOTE Confidence: 0.674992

00:02:36.940 --> 00:02:39.520 I had reconnected with Will Parker,

NOTE Confidence: 0.674992

00:02:39.520 --> 00:02:41.172 who I've known since he was

NOTE Confidence: 0.674992

00:02:41.172 --> 00:02:42.758 a young medical student

NOTE Confidence: 0.8004039

00:02:42.800 --> 00:02:45.910 back in the day. Chicago and Will was

NOTE Confidence: 0.8004039

00:02:45.910 --> 00:02:48.234 helpful to me and we've kept in touch.

NOTE Confidence: 0.8004039

00:02:48.240 --> 00:02:49.900 And so I'm delighted that he's agreed to

NOTE Confidence: 0.8004039

00:02:49.900 --> 00:02:51.280 come here today because as you'll hear

NOTE Confidence: 0.41457623

00:02:51.280 --> 00:02:53.064 when I read his his CV,

NOTE Confidence: 0.41457623

00:02:53.064 --> 00:02:54.812 he's got some serious expertise that's

NOTE Confidence: 0.41457623

00:02:54.812 --> 00:02:57.880 going to help us because importantly,

NOTE Confidence: 0.41457623

00:02:57.880 --> 00:02:59.640 we got caught. We worked very hard,

NOTE Confidence: 0.41457623

00:02:59.640 --> 00:03:00.795 very fast to come up with some

NOTE Confidence: 0.41457623

00:03:00.800 --> 00:03:02.304 crisis standard of cares.

NOTE Confidence: 0.41457623

00:03:02.304 --> 00:03:04.320 And we built a plan.

NOTE Confidence: 0.41457623

00:03:04.320 --> 00:03:06.285 But I mean, the Ben who who leads

NOTE Confidence: 0.41457623

00:03:06.285 --> 00:03:08.198 the show would be the first to admit

NOTE Confidence: 0.41457623

00:03:08.200 --> 00:03:10.000 that our plan ain't perfect.

NOTE Confidence: 0.41457623

00:03:10.000 --> 00:03:10.720 We need this.

NOTE Confidence: 0.41457623

00:03:10.720 --> 00:03:12.173 This plan still needs work.

NOTE Confidence: 0.41457623

00:03:12.173 --> 00:03:14.168 So there's one approach which

NOTE Confidence: 0.41457623

00:03:14.168 --> 00:03:15.680 could be let's just wait

NOTE Confidence: 0.665871156153846

00:03:15.680 --> 00:03:17.234 until and the next pandemic is

NOTE Confidence: 0.665871156153846

00:03:17.234 --> 00:03:19.198 upon us and we're drowning to say,

NOTE Confidence: 0.665871156153846

00:03:19.200 --> 00:03:20.124 well, we should really try and

NOTE Confidence: 0.665871156153846

00:03:20.124 --> 00:03:21.560 figure out what we're going to do.

NOTE Confidence: 0.665871156153846

00:03:21.560 --> 00:03:24.000 Or maybe now between crises

NOTE Confidence: 0.665871156153846

00:03:24.000 --> 00:03:25.596 we can try and figure out what

NOTE Confidence: 0.665871156153846

00:03:25.600 --> 00:03:27.097 exactly the plan should be.

NOTE Confidence: 0.665871156153846

00:03:27.097 --> 00:03:28.765 So I would like for us and

NOTE Confidence: 0.665871156153846

00:03:28.765 --> 00:03:29.515 that's why those of you who

NOTE Confidence: 0.6868124

00:03:29.520 --> 00:03:30.600 have worked so hard on this,

NOTE Confidence: 0.6868124

00:03:30.600 --> 00:03:31.950 I would like for us to keep

NOTE Confidence: 0.6868124

00:03:31.950 --> 00:03:33.560 the conversation going and

NOTE Confidence: 0.6868124

00:03:33.560 --> 00:03:35.000 and and Mike, I appreciate you

NOTE Confidence: 0.6868124

00:03:35.000 --> 00:03:36.208 being here. You were so supportive

NOTE Confidence: 0.6868124

00:03:36.208 --> 00:03:39.160 during so much of this stuff.

NOTE Confidence: 0.6868124

00:03:39.160 --> 00:03:40.840 I know. So a lot of important people who are

NOTE Confidence: 0.6868124

00:03:40.840 --> 00:03:42.200 in that effort were here,

NOTE Confidence: 0.6868124

00:03:42.200 --> 00:03:43.248 and a lot of people who had nothing

NOTE Confidence: 0.6868124

00:03:43.248 --> 00:03:44.790 to do with that effort but may in

NOTE Confidence: 0.6868124

00:03:44.790 --> 00:03:47.280 fact be leaders for the next one.

NOTE Confidence: 0.6868124

00:03:47.280 --> 00:03:48.724 So pay attention and when you

NOTE Confidence: 0.6868124

00:03:48.724 --> 00:03:50.184 have a good idea, share it.

NOTE Confidence: 0.6868124

00:03:50.184 --> 00:03:51.984 So with that, we're going to talk

NOTE Confidence: 0.6868124

00:03:51.984 --> 00:03:53.320 about crisis standards of care,

NOTE Confidence: 0.6868124

00:03:53.320 --> 00:03:55.653 preparing for the next pandemic. Dr.

NOTE Confidence: 0.6868124

00:03:55.653 --> 00:03:57.808 Will Parker is an assistant professor

NOTE Confidence: 0.6868124

00:03:57.808 --> 00:03:59.800 of medicine and public Health Sciences

NOTE Confidence: 0.6868124

00:03:59.800 --> 00:04:01.420 and assistant director of the

NOTE Confidence: 0.6868124

00:04:01.420 --> 00:04:03.040 McLean Center for Clinical Medical

NOTE Confidence: 0.6868124

00:04:03.096 --> 00:04:05.720 Ethics at the University of Chicago.

NOTE Confidence: 0.6868124

00:04:05.720 --> 00:04:06.288 And by the way,

NOTE Confidence: 0.6868124

00:04:06.288 --> 00:04:07.395 I just have to say because

NOTE Confidence: 0.6868124

00:04:07.395 --> 00:04:08.520 I'm sweating in this thing,

NOTE Confidence: 0.6868124

00:04:08.520 --> 00:04:11.520 the mask is because I've been exposed,

NOTE Confidence: 0.6868124

00:04:11.520 --> 00:04:13.876 just found out, not because I'm sick.

NOTE Confidence: 0.6868124

00:04:13.880 --> 00:04:15.476 And so this with the CDC site

NOTE Confidence: 0.6868124

00:04:15.480 --> 00:04:16.280 assures us is the

NOTE Confidence: 0.73452806

00:04:16.560 --> 00:04:18.720 is the adequate precaution indoors.

NOTE Confidence: 0.73452806

00:04:18.720 --> 00:04:19.924 So I'll try not to get close

NOTE Confidence: 0.73452806

00:04:19.924 --> 00:04:21.034 to you, but that's what's

NOTE Confidence: 0.73452806

00:04:21.040 --> 00:04:22.290 going on. And I look around here, there's

NOTE Confidence: 0.73452806

00:04:22.290 --> 00:04:23.770 very few of us wearing the mask today.

NOTE Confidence: 0.73452806

00:04:23.770 --> 00:04:25.720 I think I look good in it. But, you know,

NOTE Confidence: 0.73452806

00:04:28.000 --> 00:04:31.519 so, so Will really brings all the skills

NOTE Confidence: 0.73452806

00:04:29.960 --> 00:04:31.520 to the place. He's a, he's a pulmonary

NOTE Confidence: 0.73452806

00:04:31.520 --> 00:04:32.840 critical care physician.

NOTE Confidence: 0.73452806

00:04:32.840 --> 00:04:35.040 He's a clinical medical ethicist.

NOTE Confidence: 0.73452806

00:04:35.040 --> 00:04:36.370 He's a health service researcher

NOTE Confidence: 0.73452806

00:04:36.370 --> 00:04:37.434 who studies the allocation

NOTE Confidence: 0.73452806

00:04:37.440 --> 00:04:38.960 of scarce medical resources.

NOTE Confidence: 0.7229964

00:04:39.760 --> 00:04:41.104 He's specifically interested in

NOTE Confidence: 0.7229964

00:04:41.104 --> 00:04:42.760 absolute scarcity problems where

NOTE Confidence: 0.7229964

00:04:42.760 --> 00:04:45.040 demand greatly exceeds supplies and

NOTE Confidence: 0.7229964

00:04:45.040 --> 00:04:47.600 algorithms triage patients for treatment.

NOTE Confidence: 0.7229964

00:04:47.600 --> 00:04:50.550 He runs an NIH and Greenwald Foundation

NOTE Confidence: 0.7229964

00:04:50.550 --> 00:04:52.960 funded quantitative bioethics lab.

NOTE Confidence: 0.7229964

00:04:52.960 --> 00:04:55.388 That's not nothing that applies advanced

NOTE Confidence: 0.7229964

00:04:55.388 --> 00:04:57.423 empirical methods to evaluate and

NOTE Confidence: 0.7229964

00:04:57.423 --> 00:05:00.040 design allocation systems according

NOTE Confidence: 0.7229964

00:05:00.040 --> 00:05:02.240 to the underlying ethical principles.

NOTE Confidence: 0.7229964

00:05:02.240 --> 00:05:04.160 This is his academic work.

NOTE Confidence: 0.7229964

00:05:04.160 --> 00:05:06.410 That sentence again,

NOTE Confidence: 0.7229964

00:05:06.410 --> 00:05:09.160 OK advanced empirical methods to evaluate

NOTE Confidence: 0.7229964

00:05:09.160 --> 00:05:12.240 and design allocation systems according

NOTE Confidence: 0.7229964

00:05:12.240 --> 00:05:14.200 to the underlying ethical Princess.

NOTE Confidence: 0.7229964

00:05:14.200 --> 00:05:16.180 Current lab projects include

NOTE Confidence: 0.7229964

00:05:16.180 --> 00:05:18.160 deceased donor organ allocations,

NOTE Confidence: 0.7229964

00:05:18.160 --> 00:05:19.920 policy life support,

NOTE Confidence: 0.7229964

00:05:19.920 --> 00:05:22.440 triage under crisis standards of care,

NOTE Confidence: 0.7229964

00:05:22.440 --> 00:05:24.320 and the allocation of novel

NOTE Confidence: 0.7229964

00:05:24.320 --> 00:05:25.400 scarce therapeutics.

NOTE Confidence: 0.7229964

00:05:25.400 --> 00:05:27.640 Will is a graduate from Williams College,

NOTE Confidence: 0.7229964

00:05:27.640 --> 00:05:28.984 and from then he's been

NOTE Confidence: 0.7229964

00:05:28.984 --> 00:05:29.940 at University of Chicago,

NOTE Confidence: 0.7229964

00:05:29.940 --> 00:05:31.336 where he got his MD,

NOTE Confidence: 0.7229964

00:05:31.336 --> 00:05:32.968 where he did his medicine residency

NOTE Confidence: 0.7229964

00:05:32.968 --> 00:05:34.640 and critical care fellowship,

NOTE Confidence: 0.7229964

00:05:34.640 --> 00:05:36.880 where he got a master's degree in public

NOTE Confidence: 0.3890103

00:05:36.880 --> 00:05:38.872 health, where he got a PhD in

NOTE Confidence: 0.3890103

00:05:38.872 --> 00:05:41.280 public health and completed a

NOTE Confidence: 0.3890103

00:05:41.280 --> 00:05:44.280 fellowship in medical ethics.

NOTE Confidence: 0.3890103

00:05:44.280 --> 00:05:45.680 So Will is the perfect guy to

NOTE Confidence: 0.3890103

00:05:45.680 --> 00:05:46.640 help guide this conversation.

NOTE Confidence: 0.3890103

00:05:46.640 --> 00:05:48.010 I'm so grateful you came

NOTE Confidence: 0.3890103

00:05:48.010 --> 00:05:49.360 all the way from Chicago.

NOTE Confidence: 0.3890103

00:05:49.360 --> 00:05:50.840 And with that, I introduced Dr.

NOTE Confidence: 0.3890103

00:05:50.840 --> 00:05:51.400 Will Parker.

NOTE Confidence: 0.3890103

00:05:57.640 --> 00:05:59.878 All right, you guys hear me.

NOTE Confidence: 0.3890103

00:05:59.880 --> 00:06:01.364 Thank you so much,

NOTE Confidence: 0.3890103

00:06:01.364 --> 00:06:04.080 Mark and program for bioethics for the

NOTE Confidence: 0.3890103

00:06:04.080 --> 00:06:06.600 invitation to give the seminars series

NOTE Confidence: 0.3890103

00:06:06.600 --> 00:06:08.316 and that really kind of reduction.

NOTE Confidence: 0.3890103

00:06:08.320 --> 00:06:09.944 I hope you guys can help me

NOTE Confidence: 0.3890103

00:06:09.944 --> 00:06:11.120 think about this problem,

NOTE Confidence: 0.3890103

00:06:11.120 --> 00:06:13.568 which I think is incredibly challenging

NOTE Confidence: 0.3890103

00:06:13.568 --> 00:06:16.082 and I've been fortunate not to get

NOTE Confidence: 0.3890103

00:06:16.082 --> 00:06:18.439 some support to to try and take it on.

NOTE Confidence: 0.3890103

00:06:18.440 --> 00:06:21.394 So hold on, just look in here,

NOTE Confidence: 0.3890103

00:06:21.400 --> 00:06:23.840 let's see if this works.

NOTE Confidence: 0.3890103

00:06:23.840 --> 00:06:24.728 You know, my,

NOTE Confidence: 0.3890103

00:06:24.728 --> 00:06:26.800 it's difficult to start these talks with.

NOTE Confidence: 0.3890103

00:06:26.800 --> 00:06:28.557 This is where I've gone and been,

NOTE Confidence: 0.3890103

00:06:28.560 --> 00:06:30.072 but I've basically been at UFC

NOTE Confidence: 0.3890103

00:06:30.072 --> 00:06:31.440 the whole time this month.

NOTE Confidence: 0.3890103

00:06:31.440 --> 00:06:33.000 OK, so it'll be very boring

NOTE Confidence: 0.3890103

00:06:33.000 --> 00:06:35.064 with this one new C slide,

NOTE Confidence: 0.3890103

00:06:35.064 --> 00:06:36.994 but there was a transformational

NOTE Confidence: 0.3890103

00:06:36.994 --> 00:06:39.317 experience that I had in medical school.

NOTE Confidence: 0.3890103

00:06:39.320 --> 00:06:41.091 I participated in the fellowship at Outreach

NOTE Confidence: 0.3890103

00:06:41.091 --> 00:06:42.918 in the study of professional ethics.

NOTE Confidence: 0.3890103

00:06:42.920 --> 00:06:45.280 This is the memorial for the murder of

NOTE Confidence: 0.3890103

00:06:45.280 --> 00:06:47.639 Jersey used in front of Europe in Berlin,

NOTE Confidence: 0.3890103

00:06:47.640 --> 00:06:49.215 where we're learning where the

NOTE Confidence: 0.3890103

00:06:49.215 --> 00:06:50.475 the current processes are.

NOTE Confidence: 0.3890103

00:06:50.480 --> 00:06:52.005 Learning about the role that

NOTE Confidence: 0.3890103

00:06:52.005 --> 00:06:52.920 the medical professionals,

NOTE Confidence: 0.3890103

00:06:52.920 --> 00:06:54.392 the medical profession at

NOTE Confidence: 0.3890103

00:06:54.392 --> 00:06:56.232 large played in the Holocaust,

NOTE Confidence: 0.3890103

00:06:56.240 --> 00:06:58.015 learning that they weren't just

NOTE Confidence: 0.3890103

00:06:58.015 --> 00:07:00.230 bystanders but in fact active perpetrators

NOTE Confidence: 0.3890103

00:07:00.230 --> 00:07:02.474 of key elements of the genocide.

NOTE Confidence: 0.3890103

00:07:02.480 --> 00:07:03.644 And this experience,

NOTE Confidence: 0.3890103

00:07:03.644 --> 00:07:05.196 as you might imagine,

NOTE Confidence: 0.3890103

00:07:05.200 --> 00:07:07.720 is not something that leaves you lightly,

NOTE Confidence: 0.3890103

00:07:07.720 --> 00:07:09.514 especially when you get to spend

NOTE Confidence: 0.3890103

00:07:09.514 --> 00:07:11.558 the week hanging out with this guy.

NOTE Confidence: 0.3890103

00:07:11.560 --> 00:07:12.876 This is what you look like then.

NOTE Confidence: 0.3890103

00:07:12.880 --> 00:07:14.040 So I think this is,

NOTE Confidence: 0.3890103

00:07:14.040 --> 00:07:16.312 this is how I remember you in my

NOTE Confidence: 0.3890103

00:07:16.312 --> 00:07:18.692 mind with a full beard and and

NOTE Confidence: 0.3890103

00:07:18.692 --> 00:07:21.954 of of full week of seminars and

NOTE Confidence: 0.3890103

00:07:21.954 --> 00:07:24.440 dedicated tutorial style ethics

NOTE Confidence: 0.3890103

00:07:24.440 --> 00:07:27.328 teaching which was really shaped

NOTE Confidence: 0.3890103

00:07:27.328 --> 00:07:29.296 the way I think about clinical

NOTE Confidence: 0.3890103

00:07:29.296 --> 00:07:31.400 medical ethics and bioethics overall.

NOTE Confidence: 0.3890103

00:07:31.400 --> 00:07:32.288 And so naturally,

NOTE Confidence: 0.3890103

00:07:32.288 --> 00:07:34.360 when I was asked to help draft

NOTE Confidence: 0.3890103

00:07:34.422 --> 00:07:35.838 a crisis standard here,

NOTE Confidence: 0.3890103

00:07:35.840 --> 00:07:37.670 a triad protocol just like Mark

NOTE Confidence: 0.3890103

00:07:37.670 --> 00:07:39.520 was saying for my hospital,

NOTE Confidence: 0.3890103

00:07:39.520 --> 00:07:42.120 I I emailed him and I was like,

NOTE Confidence: 0.3890103

00:07:42.120 --> 00:07:44.318 hey, I'm, I'm sure you Remember Me,

NOTE Confidence: 0.3890103

00:07:44.320 --> 00:07:46.770 but I've been looking at your the

NOTE Confidence: 0.3890103

00:07:46.770 --> 00:07:49.240 Your Yell protocol that you put online,

NOTE Confidence: 0.3890103

00:07:49.240 --> 00:07:52.117 and it's been a very helpful guide.

NOTE Confidence: 0.3890103

00:07:52.120 --> 00:07:55.720 And so I think this story just tells

NOTE Confidence: 0.3890103

00:07:55.720 --> 00:07:57.408 a little bit about where I where I

NOTE Confidence: 0.3890103

00:07:57.408 --> 00:07:59.516 come from and my perspective on all of this.

NOTE Confidence: 0.3890103

00:07:59.520 --> 00:08:01.942 And another amazing thing is that now

NOTE Confidence: 0.3890103

00:08:01.942 --> 00:08:04.782 one of my medical students went on

NOTE Confidence: 0.3890103

00:08:04.782 --> 00:08:07.220 Vasby this year, Mark Kevin Lazenby,

NOTE Confidence: 0.3890103

00:08:07.220 --> 00:08:09.120 who's worked in my lab,

NOTE Confidence: 0.3890103

00:08:09.120 --> 00:08:12.080 let's all come full circle.

NOTE Confidence: 0.3890103

00:08:12.080 --> 00:08:15.839 So with that hopefully Mike's anecdote aside,

NOTE Confidence: 0.3890103

00:08:15.840 --> 00:08:17.806 I just want to talk about my support

NOTE Confidence: 0.3890103

00:08:17.806 --> 00:08:20.800 and funding for this talk I have.

NOTE Confidence: 0.3890103

00:08:20.800 --> 00:08:22.714 I'm unfortunate that I have a KOA

NOTE Confidence: 0.3890103

00:08:22.714 --> 00:08:24.256 from NHLBI that is focused on

NOTE Confidence: 0.3890103

00:08:24.256 --> 00:08:25.919 the heart allocation problem.

NOTE Confidence: 0.3890103

00:08:25.920 --> 00:08:27.760 I'm not going to talk about directly today.

NOTE Confidence: 0.3890103

00:08:27.760 --> 00:08:29.200 And then also from the National

NOTE Confidence: 0.3890103

00:08:29.200 --> 00:08:29.920 Library of Medicine,

NOTE Confidence: 0.3890103

00:08:29.920 --> 00:08:31.560 the Green Wall Foundation that

NOTE Confidence: 0.3890103

00:08:31.560 --> 00:08:32.872 directly supports this work,

NOTE Confidence: 0.3890103

00:08:32.880 --> 00:08:36.198 but no other conflicts of interest.

NOTE Confidence: 0.3890103

00:08:36.200 --> 00:08:38.616 So what I hope to get through today

NOTE Confidence: 0.3890103

00:08:38.616 --> 00:08:40.430 and and open the questions and

NOTE Confidence: 0.3890103

00:08:40.430 --> 00:08:42.090 interruptions at any time is defined

NOTE Confidence: 0.3890103

00:08:42.090 --> 00:08:43.440 prices as the standards of care.

NOTE Confidence: 0.3890103

00:08:43.440 --> 00:08:44.480 What are we talking about?

NOTE Confidence: 0.3890103

00:08:44.480 --> 00:08:44.877 Right?

NOTE Confidence: 0.3890103

00:08:44.877 --> 00:08:46.465 Then go through didactically

NOTE Confidence: 0.3890103

00:08:46.465 --> 00:08:48.450 the ethical values for life

NOTE Confidence: 0.34980908

00:08:48.518 --> 00:08:50.598 support allocation in the crisis.

NOTE Confidence: 0.34980908

00:08:50.600 --> 00:08:52.624 Just make sure we're all on the same

NOTE Confidence: 0.34980908

00:08:52.624 --> 00:08:54.264 page from a normative perspective.

NOTE Confidence: 0.34980908

00:08:54.264 --> 00:08:55.994 And then finally there's four

NOTE Confidence: 0.34980908

00:08:55.994 --> 00:08:57.212 active bioethical controversies

NOTE Confidence: 0.34980908

00:08:57.212 --> 00:08:59.237 and crisis standards of care.

NOTE Confidence: 0.34980908

00:08:59.240 --> 00:09:01.103 I hope that we can pause sort of after

NOTE Confidence: 0.34980908

00:09:01.103 --> 00:09:02.956 each one and have a little discussion,

NOTE Confidence: 0.34980908

00:09:02.960 --> 00:09:04.112 because they especially need

NOTE Confidence: 0.34980908

00:09:04.112 --> 00:09:05.840 help with like the third one.

NOTE Confidence: 0.34980908

00:09:05.840 --> 00:09:08.720 And so I'm looking to get as much out

NOTE Confidence: 0.34980908

00:09:08.720 --> 00:09:11.514 of this for as seminars as I can.

NOTE Confidence: 0.34980908

00:09:11.520 --> 00:09:13.690 All right, So what do we What

NOTE Confidence: 0.34980908

00:09:13.690 --> 00:09:15.200 is crisis standards of care?

NOTE Confidence: 0.34980908

00:09:15.200 --> 00:09:15.866 Bernie Lowe,

NOTE Confidence: 0.34980908

00:09:15.866 --> 00:09:18.197 who's one of the leaders in bioethics,

NOTE Confidence: 0.34980908

00:09:18.200 --> 00:09:20.520 is probably known the most in this room.

NOTE Confidence: 0.34980908

00:09:20.520 --> 00:09:25.240 I presented it this way at a talk to those

NOTE Confidence: 0.34980908

00:09:25.240 --> 00:09:27.039 very apartment and right to the point.

NOTE Confidence: 0.34980908

00:09:27.040 --> 00:09:30.400 This is Memorial Hospital in New Orleans.

NOTE Confidence: 0.34980908

00:09:30.400 --> 00:09:32.155 Several days after the levees

NOTE Confidence: 0.34980908

00:09:32.155 --> 00:09:33.559 break and Hurricane Katrina.

NOTE Confidence: 0.34980908

00:09:33.560 --> 00:09:35.744 You can see that the hospital

NOTE Confidence: 0.34980908

00:09:35.744 --> 00:09:37.568 is completely flooded and they

NOTE Confidence: 0.34980908

00:09:37.568 --> 00:09:39.040 were losing power completely,

NOTE Confidence: 0.34980908

00:09:39.040 --> 00:09:41.084 running out of most of the resources

NOTE Confidence: 0.34980908

00:09:41.084 --> 00:09:43.198 to provide life support and hospital.

NOTE Confidence: 0.34980908

00:09:43.200 --> 00:09:45.234 And what happened in Memorial Hospital

NOTE Confidence: 0.34980908

00:09:45.234 --> 00:09:47.080 is still contentious and debated.

NOTE Confidence: 0.34980908

00:09:47.080 --> 00:09:49.439 It's been made into a Netflix series,

NOTE Confidence: 0.34980908

00:09:49.440 --> 00:09:51.736 but it clearly is not in accordance

NOTE Confidence: 0.34980908

00:09:51.736 --> 00:09:53.645 with the principles of bioethics

NOTE Confidence: 0.34980908

00:09:53.645 --> 00:09:55.720 released at several different levels.

NOTE Confidence: 0.34980908

00:09:55.720 --> 00:09:59.910 And this event and the 1st H1A1 influenza

NOTE Confidence: 0.34980908

00:09:59.910 --> 00:10:01.760 pandemic spurred the Institute of

NOTE Confidence: 0.34980908

00:10:01.760 --> 00:10:04.050 Medicine that is now called the National

NOTE Confidence: 0.34980908

00:10:04.050 --> 00:10:05.880 Academy of Medicine at the time,

NOTE Confidence: 0.34980908

00:10:05.880 --> 00:10:08.127 to form a ad hoc committee and

NOTE Confidence: 0.34980908

00:10:08.127 --> 00:10:09.639 define crisis standard of care,

NOTE Confidence: 0.34980908

00:10:09.640 --> 00:10:11.852 which is a recognition that a disaster

NOTE Confidence: 0.34980908

00:10:11.852 --> 00:10:14.238 is making it so we can't give

NOTE Confidence: 0.34980908

00:10:14.238 --> 00:10:15.958 everyone the treatment they need.

NOTE Confidence: 0.34980908

00:10:15.960 --> 00:10:16.840 In particular,

NOTE Confidence: 0.34980908

00:10:16.840 --> 00:10:19.480 we can't give them life support

NOTE Confidence: 0.34980908

00:10:19.480 --> 00:10:22.176 even if they're in acute respiratory

NOTE Confidence: 0.34980908

00:10:22.176 --> 00:10:24.256 cardiac failure and needed to

NOTE Confidence: 0.34980908

00:10:24.256 --> 00:10:25.920 prevent them from dying.

NOTE Confidence: 0.34980908

00:10:25.920 --> 00:10:29.595 So truly a tragic and horrible circumstance.

NOTE Confidence: 0.34980908

00:10:29.600 --> 00:10:32.175 So how does one approach

NOTE Confidence: 0.34980908

00:10:32.175 --> 00:10:34.235 such a terrible problem?

NOTE Confidence: 0.34980908

00:10:34.240 --> 00:10:36.312 Either when you have an acute crisis

NOTE Confidence: 0.34980908

00:10:36.312 --> 00:10:38.243 names of care like Hurricane Katrina

NOTE Confidence: 0.34980908

00:10:38.243 --> 00:10:40.982 or a perhaps subacute one with a COVID

NOTE Confidence: 0.34980908

00:10:40.982 --> 00:10:42.957 pandemic surge where the patients,

NOTE Confidence: 0.34980908

00:10:42.960 --> 00:10:44.444 as those of us who worked in

NOTE Confidence: 0.34980908

00:10:44.444 --> 00:10:45.400 the ICU that time,

NOTE Confidence: 0.34980908

00:10:45.400 --> 00:10:47.808 seemed to keep coming faster and faster

NOTE Confidence: 0.34980908

00:10:47.808 --> 00:10:50.305 each day and the panic that we were

NOTE Confidence: 0.34980908

00:10:50.305 --> 00:10:52.960 going to run out of life support rose.

NOTE Confidence: 0.34980908

00:10:52.960 --> 00:10:53.554 You know,

NOTE Confidence: 0.34980908

00:10:53.554 --> 00:10:55.633 how do we approach the stereo problem?

NOTE Confidence: 0.34980908

00:10:55.640 --> 00:10:57.705 I think it's actually one of a

NOTE Confidence: 0.34980908

00:10:57.705 --> 00:10:59.678 set of problems as Mark moved

NOTE Confidence: 0.34980908

00:10:59.678 --> 00:11:01.034 to in his introduction,

NOTE Confidence: 0.34980908

00:11:01.040 --> 00:11:03.320 a set of problems where we've

NOTE Confidence: 0.34980908

00:11:03.320 --> 00:11:04.840 we've recognized the scarcity,

NOTE Confidence: 0.34980908

00:11:04.840 --> 00:11:07.042 we've recognized that the the treatments

NOTE Confidence: 0.34980908

00:11:07.042 --> 00:11:08.882 are incredibly important and valuable

NOTE Confidence: 0.34980908

00:11:08.882 --> 00:11:11.296 and life saving and a central authority.

NOTE Confidence: 0.34980908

00:11:11.296 --> 00:11:13.880 Maybe it's a health system like Yale.

NOTE Confidence: 0.34980908

00:11:13.880 --> 00:11:16.652 Maybe it's the entire United States

NOTE Confidence: 0.34980908

00:11:16.652 --> 00:11:19.591 government in deceased or organs has

NOTE Confidence: 0.34980908

00:11:19.591 --> 00:11:22.897 taken control of the resource and

NOTE Confidence: 0.34980908

00:11:22.897 --> 00:11:24.810 is algorithmically allocating it

NOTE Confidence: 0.34980908

00:11:24.810 --> 00:11:26.835 according to an explicit protocol.

NOTE Confidence: 0.34980908

00:11:26.840 --> 00:11:29.252 So there's something written down on

NOTE Confidence: 0.34980908

00:11:29.252 --> 00:11:31.484 paper which takes patients and puts

NOTE Confidence: 0.34980908

00:11:31.484 --> 00:11:33.776 them in a list and triages the treatment.

NOTE Confidence: 0.34980908

00:11:33.776 --> 00:11:35.932 So that's the central focus of my

NOTE Confidence: 0.34980908

00:11:35.932 --> 00:11:38.541 lab and I hope the parallel between

NOTE Confidence: 0.34980908

00:11:38.541 --> 00:11:40.033 the different clinical domains,

NOTE Confidence: 0.34980908

00:11:40.040 --> 00:11:43.337 what I think is the same bioethical

NOTE Confidence: 0.34980908

00:11:43.337 --> 00:11:46.120 challenge fundamentally is clear.

NOTE Confidence: 0.34980908

00:11:46.120 --> 00:11:48.640 So how do we, how do we,

NOTE Confidence: 0.34980908

00:11:48.640 --> 00:11:49.824 starting from the ethics,

NOTE Confidence: 0.34980908

00:11:49.824 --> 00:11:51.600 how do we approach this problem?

NOTE Confidence: 0.35795084

00:11:51.600 --> 00:11:54.520 How do we construct A protocol

NOTE Confidence: 0.35795084

00:11:54.520 --> 00:11:56.320 based on what ethical principles?

NOTE Confidence: 0.35795084

00:11:56.320 --> 00:11:58.760 Where, Where to begin?

NOTE Confidence: 0.35795084

00:11:58.760 --> 00:12:01.546 I think about this this way that

NOTE Confidence: 0.35795084

00:12:01.546 --> 00:12:03.791 several several of my mentors

NOTE Confidence: 0.35795084

00:12:03.791 --> 00:12:05.719 had written and described.

NOTE Confidence: 0.35795084

00:12:05.720 --> 00:12:07.967 Govind Prasad is sort of chief probably

NOTE Confidence: 0.35795084

00:12:07.967 --> 00:12:10.812 among them and I think laying out the

NOTE Confidence: 0.35795084

00:12:10.812 --> 00:12:12.627 space of reasonable ethical principles

NOTE Confidence: 0.35795084

00:12:12.692 --> 00:12:15.440 that should be considered when you're

NOTE Confidence: 0.35795084

00:12:15.440 --> 00:12:17.272 allocating scarce healthcare resources.

NOTE Confidence: 0.35795084

00:12:17.280 --> 00:12:20.368 I think this framework has also been

NOTE Confidence: 0.35795084

00:12:20.368 --> 00:12:22.180 adapted substantially by my mentor at

NOTE Confidence: 0.35795084

00:12:22.232 --> 00:12:24.112 the University of Chicago, Monica Peek.

NOTE Confidence: 0.35795084

00:12:24.112 --> 00:12:26.184 And of course Zeke Emanuel has been

NOTE Confidence: 0.35795084

00:12:26.184 --> 00:12:28.038 involved with this from the beginning.

NOTE Confidence: 0.35795084

00:12:28.040 --> 00:12:30.750 So what I'm going to do now is just go

NOTE Confidence: 0.35795084

00:12:30.824 --> 00:12:34.186 through these four sets of of values and

NOTE Confidence: 0.35795084

00:12:34.186 --> 00:12:37.198 and describe them in greater detail.

NOTE Confidence: 0.35795084

00:12:37.200 --> 00:12:39.414 So the first is that we should treat people

NOTE Confidence: 0.35795084

00:12:39.414 --> 00:12:41.360 equally coming from respects with persons,

NOTE Confidence: 0.35795084

00:12:41.360 --> 00:12:41.728 right?

NOTE Confidence: 0.35795084

00:12:41.728 --> 00:12:44.672 We don't have enough treatment to go around.

NOTE Confidence: 0.35795084

00:12:44.680 --> 00:12:45.440 Everybody's a human being.

NOTE Confidence: 0.35795084

00:12:45.440 --> 00:12:46.760 They all need it, right?

NOTE Confidence: 0.35795084

00:12:46.760 --> 00:12:49.124 They're all in the in the

NOTE Confidence: 0.35795084

00:12:49.124 --> 00:12:50.679 case of crisis and care,

NOTE Confidence: 0.35795084

00:12:50.680 --> 00:12:52.984 they need life support and they'll

NOTE Confidence: 0.35795084

00:12:52.984 --> 00:12:54.520 die of respiratory failure.

NOTE Confidence: 0.35795084

00:12:54.520 --> 00:12:55.678 So we should treat them equally.

NOTE Confidence: 0.35795084

00:12:55.680 --> 00:12:57.240 So a lottery would do that,

NOTE Confidence: 0.35795084

00:12:57.240 --> 00:12:57.745 right?

NOTE Confidence: 0.35795084

00:12:57.745 --> 00:13:01.280 You would just randomly assign the treatment

NOTE Confidence: 0.35795084

00:13:01.280 --> 00:13:05.077 and that sort of respects this principle.

NOTE Confidence: 0.35795084

00:13:05.080 --> 00:13:07.726 So that in here lotteries and

NOTE Confidence: 0.35795084

00:13:07.726 --> 00:13:09.920 actually in a protocol too.

NOTE Confidence: 0.35795084

00:13:09.920 --> 00:13:11.310 That's in contrast with the

NOTE Confidence: 0.35795084

00:13:11.310 --> 00:13:13.080 idea of first come first serve,

NOTE Confidence: 0.35795084

00:13:13.080 --> 00:13:14.982 which is that patients queue up

NOTE Confidence: 0.35795084

00:13:14.982 --> 00:13:16.830 for treatment and then they sort

NOTE Confidence: 0.35795084

00:13:16.830 --> 00:13:18.894 of survive for as long as they can

NOTE Confidence: 0.35795084

00:13:18.959 --> 00:13:20.975 on the wait list before they get

NOTE Confidence: 0.35795084

00:13:20.975 --> 00:13:23.160 they get treated and in practice

NOTE Confidence: 0.35795084

00:13:23.160 --> 00:13:24.920 first come first served.

NOTE Confidence: 0.35795084

00:13:24.920 --> 00:13:25.266 You know,

NOTE Confidence: 0.35795084

00:13:25.266 --> 00:13:26.650 while it might be a good way to

NOTE Confidence: 0.35795084

00:13:26.695 --> 00:13:27.919 allocate dinner reservations,

NOTE Confidence: 0.35795084

00:13:27.920 --> 00:13:29.720 so we can talk about that,

NOTE Confidence: 0.35795084

00:13:29.720 --> 00:13:31.869 I think it's a pretty bad way

NOTE Confidence: 0.35795084

00:13:31.869 --> 00:13:33.752 to allocate scarce health care

NOTE Confidence: 0.35795084

00:13:33.752 --> 00:13:35.130 resources specifically because the

NOTE Confidence: 0.35795084

00:13:35.130 --> 00:13:37.682 people who end up at the front of

NOTE Confidence: 0.35795084

00:13:37.682 --> 00:13:39.608 the line usually use their socio

NOTE Confidence: 0.35795084

00:13:39.608 --> 00:13:41.199 economic advantage to get there.

NOTE Confidence: 0.35795084

00:13:41.200 --> 00:13:44.072 And one of the I think greatest reversal

NOTE Confidence: 0.35795084

00:13:44.072 --> 00:13:46.469 of the structurally racist healthcare

NOTE Confidence: 0.35795084

00:13:46.469 --> 00:13:49.673 policy in recent history was the

NOTE Confidence: 0.35795084

00:13:49.680 --> 00:13:51.720 2014 change the kidney allocation system,

NOTE Confidence: 0.35795084

00:13:51.720 --> 00:13:52.842 which which Romenka,

NOTE Confidence: 0.35795084

00:13:52.842 --> 00:13:55.460 who's here at Yale was very involved

NOTE Confidence: 0.35795084

00:13:55.529 --> 00:13:57.380 with this where pre dialysis waiting

NOTE Confidence: 0.35795084

00:13:57.380 --> 00:13:59.672 time started to be counted as points

NOTE Confidence: 0.35795084

00:13:59.672 --> 00:14:02.038 for patients in the king transplant list.

NOTE Confidence: 0.35795084

00:14:02.040 --> 00:14:03.726 So let's say you'd been listed

NOTE Confidence: 0.35795084

00:14:03.726 --> 00:14:05.467 at a transplant center and you'd

NOTE Confidence: 0.35795084

00:14:05.467 --> 00:14:06.595 waited for five years,

NOTE Confidence: 0.35795084

00:14:06.600 --> 00:14:07.540 then you would when you

NOTE Confidence: 0.35795084

00:14:07.540 --> 00:14:08.480 finally got on the list,

NOTE Confidence: 0.35795084

00:14:08.480 --> 00:14:09.998 you'd get five years of credit.

NOTE Confidence: 0.35795084

00:14:10.000 --> 00:14:12.196 Before that you'd start with 0.

NOTE Confidence: 0.35795084

00:14:12.200 --> 00:14:13.852 So it's a cue,

NOTE Confidence: 0.35795084

00:14:13.852 --> 00:14:15.826 but inherently unfair and skewed

NOTE Confidence: 0.35795084

00:14:15.826 --> 00:14:17.736 towards people who can list

NOTE Confidence: 0.35795084

00:14:17.736 --> 00:14:19.678 preemptively before their kidneys fail,

NOTE Confidence: 0.35795084

00:14:19.680 --> 00:14:22.124 who are predominantly privately

NOTE Confidence: 0.35795084

00:14:22.124 --> 00:14:23.957 insured and white.

NOTE Confidence: 0.35795084

00:14:23.960 --> 00:14:25.880 And so once they fix this,

NOTE Confidence: 0.35795084

00:14:25.880 --> 00:14:28.976 this huge racial disparity in kidney

NOTE Confidence: 0.35795084

00:14:28.976 --> 00:14:31.880 transplantation rates went away overnight.

NOTE Confidence: 0.35795084

00:14:31.880 --> 00:14:34.580 So this is an example of where and the

NOTE Confidence: 0.35795084

00:14:34.580 --> 00:14:37.051 idea of treating people equally but with

NOTE Confidence: 0.35795084

00:14:37.051 --> 00:14:40.200 a with a first come first served cue

NOTE Confidence: 0.35795084

00:14:40.200 --> 00:14:42.714 doesn't actually work out in practice.

NOTE Confidence: 0.35795084

00:14:42.720 --> 00:14:44.745 So that's the first set

NOTE Confidence: 0.35795084

00:14:44.745 --> 00:14:45.960 treating people equally.

NOTE Confidence: 0.35795084

00:14:45.960 --> 00:14:48.840 The next set of principles is

NOTE Confidence: 0.35795084

00:14:48.840 --> 00:14:50.548 maximizing total benefits, right?

NOTE Confidence: 0.35795084

00:14:50.548 --> 00:14:51.352 We have a,

NOTE Confidence: 0.35795084

00:14:51.352 --> 00:14:52.960 we have a security healthcare resource.

NOTE Confidence: 0.40948012

00:14:52.960 --> 00:14:55.111 We want to use it not just sort of

NOTE Confidence: 0.40948012

00:14:55.111 --> 00:14:56.640 randomly across the population.

NOTE Confidence: 0.40948012

00:14:56.640 --> 00:14:59.439 We want to use it to maximize the benefit,

NOTE Confidence: 0.40948012

00:14:59.440 --> 00:15:01.036 which can be formalized in a bunch

NOTE Confidence: 0.40948012

00:15:01.036 --> 00:15:02.642 of different ways and just listed to

NOTE Confidence: 0.40948012

00:15:02.642 --> 00:15:04.520 save lives and save life years. Here

NOTE Confidence: 0.40948012

00:15:06.760 --> 00:15:09.560 what you can imagine what interaction,

NOTE Confidence: 0.46465632

00:15:11.880 --> 00:15:14.358 excuse me, quality just these years.

NOTE Confidence: 0.46465632

00:15:17.920 --> 00:15:19.738 So in this example you would

NOTE Confidence: 0.46465632

00:15:19.738 --> 00:15:21.759 if you wanted to save lives,

NOTE Confidence: 0.46465632

00:15:21.760 --> 00:15:23.752 you clearly would allocate to the

NOTE Confidence: 0.46465632

00:15:23.752 --> 00:15:26.285 gentleman on the on the left here who

NOTE Confidence: 0.46465632

00:15:26.285 --> 00:15:28.560 has an 80% survivor of the discharge.

NOTE Confidence: 0.46465632

00:15:28.560 --> 00:15:30.560 But if you wanted to save life years,

NOTE Confidence: 0.46465632

00:15:32.840 --> 00:15:35.440 you also have to know how old the patient is.

NOTE Confidence: 0.46465632

00:15:35.440 --> 00:15:38.260 So here we have an 80 year old with an

NOTE Confidence: 0.46465632

00:15:38.337 --> 00:15:40.600 80% survival discharge and a 40 year

NOTE Confidence: 0.46465632

00:15:40.600 --> 00:15:43.000 old with a 40% survival discharge.

NOTE Confidence: 0.46465632

00:15:43.000 --> 00:15:44.560 In this situation,

NOTE Confidence: 0.46465632

00:15:44.560 --> 00:15:46.680 if your goal had to save life years,

NOTE Confidence: 0.46465632

00:15:46.680 --> 00:15:48.556 the total number of lives gained from

NOTE Confidence: 0.46465632

00:15:48.556 --> 00:15:50.687 the resource you would allocate to the

NOTE Confidence: 0.46465632

00:15:50.687 --> 00:15:52.277 second patient because their expected

NOTE Confidence: 0.46465632

00:15:52.277 --> 00:15:54.040 life years gained from treatment,

NOTE Confidence: 0.46465632

00:15:54.040 --> 00:15:55.925 in this case with mechanical

NOTE Confidence: 0.46465632

00:15:55.925 --> 00:15:57.433 ventilator for COVID-19 pneumonia,

NOTE Confidence: 0.46465632

00:15:57.440 --> 00:16:00.833 is 20 compared to 8 to the other patient.

NOTE Confidence: 0.46465632

00:16:00.840 --> 00:16:03.630 So already the utilitarian derived idea

NOTE Confidence: 0.46465632

00:16:03.630 --> 00:16:06.346 of maximizing total benefits has some

NOTE Confidence: 0.46465632

00:16:06.346 --> 00:16:09.076 problems here because we have to specify

NOTE Confidence: 0.46465632

00:16:09.076 --> 00:16:11.319 exactly what benefits we're after.

NOTE Confidence: 0.46465632

00:16:11.320 --> 00:16:13.078 Next is this concept that there's

NOTE Confidence: 0.46465632

00:16:13.078 --> 00:16:14.623 certain people who enter the

NOTE Confidence: 0.46465632

00:16:14.623 --> 00:16:16.220 allocation being worse off, right?

NOTE Confidence: 0.46465632

00:16:16.220 --> 00:16:18.600 They've been sort of screwed over by

NOTE Confidence: 0.46465632

00:16:18.600 --> 00:16:20.917 society or by their disease process,

NOTE Confidence: 0.46465632

00:16:20.920 --> 00:16:23.545 and we should account for that in

NOTE Confidence: 0.46465632

00:16:23.545 --> 00:16:25.599 the allocation protocol we developed.

NOTE Confidence: 0.46465632

00:16:25.600 --> 00:16:28.904 Now, one idea is the rule of rescue, right?

NOTE Confidence: 0.46465632

00:16:28.904 --> 00:16:31.208 You're going to treat the person

NOTE Confidence: 0.46465632

00:16:31.208 --> 00:16:32.636 who's the sickest 1st.

NOTE Confidence: 0.46465632

00:16:32.636 --> 00:16:34.844 And of course I think we can all

NOTE Confidence: 0.46465632

00:16:34.844 --> 00:16:36.575 imagine in a crisis standards

NOTE Confidence: 0.46465632

00:16:36.575 --> 00:16:38.306 and care scenario where basically

NOTE Confidence: 0.46465632

00:16:38.306 --> 00:16:40.036 everyone will die without treatment.

NOTE Confidence: 0.46465632

00:16:40.040 --> 00:16:42.448 If you treated the sickest people with the

NOTE Confidence: 0.46465632

00:16:42.448 --> 00:16:44.158 highest predicted probability of death,

NOTE Confidence: 0.46465632

00:16:44.160 --> 00:16:46.918 that would lead to enormously low benefits,

NOTE Confidence: 0.46465632

00:16:46.920 --> 00:16:47.246 right?

NOTE Confidence: 0.46465632

00:16:47.246 --> 00:16:49.528 So while sickest first is actually used

NOTE Confidence: 0.46465632

00:16:49.528 --> 00:16:52.076 in liver allocation like the melt score,

NOTE Confidence: 0.46465632

00:16:52.080 --> 00:16:54.132 that's only because those patients actually

NOTE Confidence: 0.46465632

00:16:54.132 --> 00:16:56.120 have high benefits from transplant.

NOTE Confidence: 0.46465632

00:16:56.120 --> 00:16:58.794 In a crisis standards and care scenario,

NOTE Confidence: 0.46465632

00:16:58.800 --> 00:17:00.552 sickest first would lead to the

NOTE Confidence: 0.46465632

00:17:00.552 --> 00:17:02.431 least optimal solution in terms of

NOTE Confidence: 0.46465632

00:17:02.431 --> 00:17:04.076 with respect to maximizing benefits.

NOTE Confidence: 0.46465632

00:17:04.080 --> 00:17:06.558 So that's in general is out.

NOTE Confidence: 0.46465632

00:17:06.560 --> 00:17:08.048 So what other classes of people

NOTE Confidence: 0.46465632

00:17:08.048 --> 00:17:08.792 are worse off?

NOTE Confidence: 0.46465632

00:17:08.800 --> 00:17:09.742 Well, the Youngs,

NOTE Confidence: 0.46465632

00:17:09.742 --> 00:17:11.626 if you develop end stage organ

NOTE Confidence: 0.46465632

00:17:11.626 --> 00:17:13.184 failure or achieve respiratory

NOTE Confidence: 0.46465632

00:17:13.184 --> 00:17:14.756 failure when you're young,

NOTE Confidence: 0.46465632

00:17:14.760 --> 00:17:16.004 a life threatening medical

NOTE Confidence: 0.46465632

00:17:16.004 --> 00:17:17.559 condition and you die young,

NOTE Confidence: 0.46465632

00:17:17.560 --> 00:17:18.980 then you haven't got to

NOTE Confidence: 0.46465632

00:17:18.980 --> 00:17:20.400 live your whole life right.

NOTE Confidence: 0.46465632

00:17:20.400 --> 00:17:22.128 You haven't got to play your

NOTE Confidence: 0.46465632

00:17:22.128 --> 00:17:23.280 9 innings of baseball.

NOTE Confidence: 0.46465632

00:17:23.280 --> 00:17:25.422 This is the concept of Fair innings

NOTE Confidence: 0.46465632

00:17:25.422 --> 00:17:27.405 that every person is deserve some of

NOTE Confidence: 0.46465632

00:17:27.405 --> 00:17:29.470 the full life and we should allocate

NOTE Confidence: 0.46465632

00:17:29.527 --> 00:17:32.079 resources in order to ensure that it happens.

NOTE Confidence: 0.46465632

00:17:32.080 --> 00:17:34.992 So this is a more General Healthcare

NOTE Confidence: 0.46465632

00:17:34.992 --> 00:17:36.735 allocation argument than just

NOTE Confidence: 0.46465632

00:17:36.735 --> 00:17:38.840 the absolute scarcity problem we

NOTE Confidence: 0.46465632

00:17:38.840 --> 00:17:39.708 might articulated,

NOTE Confidence: 0.46465632

00:17:39.708 --> 00:17:41.878 probably perhaps passed by Norm,

NOTE Confidence: 0.46465632

00:17:41.880 --> 00:17:42.968 Norm Daniels,

NOTE Confidence: 0.46465632

00:17:42.968 --> 00:17:44.600 but applied here,

NOTE Confidence: 0.46465632

00:17:44.600 --> 00:17:47.270 this would end up with ideas

NOTE Confidence: 0.46465632

00:17:47.270 --> 00:17:49.049 like pediatric candidates for

NOTE Confidence: 0.46465632

00:17:49.049 --> 00:17:50.821 organ transplantation should be

NOTE Confidence: 0.46465632

00:17:50.821 --> 00:17:52.560 categorically prioritized over adults,

NOTE Confidence: 0.46465632

00:17:52.560 --> 00:17:53.918 which is actually the way we do.

NOTE Confidence: 0.46465632

00:17:53.920 --> 00:17:56.240 We do things right.

NOTE Confidence: 0.46465632

00:17:56.240 --> 00:17:57.540 But there's another group of

NOTE Confidence: 0.46465632

00:17:57.540 --> 00:17:58.840 patients who are worse off,

NOTE Confidence: 0.46465632

00:17:58.840 --> 00:18:00.877 and those are people who have been

NOTE Confidence: 0.46465632

00:18:00.880 --> 00:18:03.552 structurally disadvantaged by society

NOTE Confidence: 0.46465632

00:18:03.552 --> 00:18:07.560 and in structural laws and rules.

NOTE Confidence: 0.46465632

00:18:07.560 --> 00:18:08.036 I think.

NOTE Confidence: 0.46465632

00:18:08.036 --> 00:18:09.940 I don't know if many people are having

NOTE Confidence: 0.46465632

00:18:09.995 --> 00:18:11.717 any familiar area in Chicago here,

NOTE Confidence: 0.46465632

00:18:11.720 --> 00:18:16.400 but the map's pretty clear.

NOTE Confidence: 0.46465632

00:18:16.400 --> 00:18:19.840 All of the areas that are dark here,

NOTE Confidence: 0.46465632

00:18:19.840 --> 00:18:22.728 the highest are the highest

NOTE Confidence: 0.46465632

00:18:22.728 --> 00:18:24.270 percentage of African Americans

NOTE Confidence: 0.46465632

00:18:24.270 --> 00:18:26.640 or people identify who are black.

NOTE Confidence: 0.46465632

00:18:26.640 --> 00:18:30.128 And there are also areas that have been

NOTE Confidence: 0.46465632

00:18:30.128 --> 00:18:33.019 structurally disadvantaged by du jour,

NOTE Confidence: 0.46465632

00:18:33.019 --> 00:18:35.358 structural racist policies like,

NOTE Confidence: 0.46465632

00:18:35.358 --> 00:18:38.220 and I'm going to go into this more later

NOTE Confidence: 0.67711496

00:18:38.290 --> 00:18:41.295 in the talk, like detailed

NOTE Confidence: 0.67711496

00:18:41.295 --> 00:18:43.080 well in the color of the law,

NOTE Confidence: 0.67711496

00:18:43.080 --> 00:18:46.878 color of law or redlining specifically,

NOTE Confidence: 0.67711496

00:18:46.880 --> 00:18:48.560 and we'll talk about this more.

NOTE Confidence: 0.67711496

00:18:48.560 --> 00:18:50.544 But you can imagine if you're if you're

NOTE Confidence: 0.67711496

00:18:50.544 --> 00:18:52.295 living in one of these neighbourhoods

NOTE Confidence: 0.67711496

00:18:52.295 --> 00:18:54.435 and the pandemic is hitting you unequally

NOTE Confidence: 0.67711496

00:18:54.435 --> 00:18:56.169 because the city has been designed

NOTE Confidence: 0.67711496

00:18:56.169 --> 00:18:58.180 to make your neighbourhood worse off,

NOTE Confidence: 0.67711496

00:18:58.180 --> 00:19:00.080 should we account for that?

NOTE Confidence: 0.67711496

00:19:00.080 --> 00:19:03.048 So this is the concept of favouring

NOTE Confidence: 0.67711496

00:19:03.048 --> 00:19:05.195 the disadvantage somehow in in

NOTE Confidence: 0.67711496

00:19:05.195 --> 00:19:06.795 in your allocation protocol.

NOTE Confidence: 0.67711496

00:19:06.800 --> 00:19:09.000 And finally, the last category

NOTE Confidence: 0.67711496

00:19:09.000 --> 00:19:10.760 is rewarding social usefulness,

NOTE Confidence: 0.67711496

00:19:10.760 --> 00:19:12.867 which already kind of seems a little

NOTE Confidence: 0.67711496

00:19:12.867 --> 00:19:14.919 icky when you just say it right.

NOTE Confidence: 0.67711496

00:19:14.920 --> 00:19:16.171 But we actually,

NOTE Confidence: 0.67711496

00:19:16.171 --> 00:19:17.839 in order an allocation,

NOTE Confidence: 0.67711496

00:19:17.840 --> 00:19:21.177 use this principle pretty in

NOTE Confidence: 0.67711496

00:19:21.177 --> 00:19:23.679 a very concrete and big way.

NOTE Confidence: 0.67711496

00:19:23.680 --> 00:19:25.512 So if you are a living Kitty donor

NOTE Confidence: 0.67711496

00:19:25.512 --> 00:19:27.197 and your Kitty goes on to fail,

NOTE Confidence: 0.67711496

00:19:27.200 --> 00:19:30.240 you get 4 years of waiting time points.

NOTE Confidence: 0.67711496

00:19:30.240 --> 00:19:33.005 And the idea there is that you're

NOTE Confidence: 0.67711496

00:19:33.005 --> 00:19:35.514 getting paid back for being good

NOTE Confidence: 0.67711496

00:19:35.514 --> 00:19:37.579 in the past right Reciprocity

NOTE Confidence: 0.67711496

00:19:37.579 --> 00:19:39.492 for your previous good deeds.

NOTE Confidence: 0.67711496

00:19:39.492 --> 00:19:41.357 But the the other idea

NOTE Confidence: 0.57877976

00:19:44.080 --> 00:19:46.176 here is that there's some people who are

NOTE Confidence: 0.57877976

00:19:46.176 --> 00:19:48.380 like very valuable to society, right?

NOTE Confidence: 0.57877976

00:19:48.380 --> 00:19:51.280 They have a multiplier effect,

NOTE Confidence: 0.57877976

00:19:51.280 --> 00:19:53.376 like for example a famous CEO who is

NOTE Confidence: 0.57877976

00:19:53.376 --> 00:19:55.591 a job creator or something, right?

NOTE Confidence: 0.57877976

00:19:55.591 --> 00:19:57.768 And if we should give them the

NOTE Confidence: 0.57877976

00:19:57.768 --> 00:19:59.436 resource because then they'll keep

NOTE Confidence: 0.57877976

00:19:59.436 --> 00:20:01.398 them alive and help other people.

NOTE Confidence: 0.57877976

00:20:01.400 --> 00:20:04.730 That seems, I think, why I picked a CEO.

NOTE Confidence: 0.57877976

00:20:04.730 --> 00:20:06.200 That may not be the most popular

NOTE Confidence: 0.57877976

00:20:06.200 --> 00:20:10.576 on on purpose, but that reasoning

NOTE Confidence: 0.57877976

00:20:10.576 --> 00:20:12.800 actually overwhelms.

NOTE Confidence: 0.57877976

00:20:12.800 --> 00:20:14.840 The COVID-19 vaccine allocation

NOTE Confidence: 0.57877976

00:20:14.840 --> 00:20:17.900 aside from elderly patients and long

NOTE Confidence: 0.57877976

00:20:17.979 --> 00:20:21.004 term care facilities who went first?

NOTE Confidence: 0.57877976

00:20:21.004 --> 00:20:24.106 Us. I remember getting a second

NOTE Confidence: 0.57877976

00:20:24.106 --> 00:20:26.238 dose in mid January,

NOTE Confidence: 0.57877976

00:20:26.240 --> 00:20:28.823 well before weeks before any of my

NOTE Confidence: 0.57877976

00:20:28.823 --> 00:20:31.222 vulnerable patients and I realized that

NOTE Confidence: 0.57877976

00:20:31.222 --> 00:20:33.664 the weight on instrumental value and

NOTE Confidence: 0.57877976

00:20:33.664 --> 00:20:35.190 reciprocity was severely miscalibrated.

NOTE Confidence: 0.57877976

00:20:35.190 --> 00:20:38.480 But that's a different talk I see.

NOTE Confidence: 0.57877976

00:20:38.480 --> 00:20:40.982 So hopefully what's become obvious is

NOTE Confidence: 0.57877976

00:20:40.982 --> 00:20:43.197 I've laid these values and criticisms

NOTE Confidence: 0.57877976

00:20:43.197 --> 00:20:45.111 out is that they're inherently in

NOTE Confidence: 0.57877976

00:20:45.111 --> 00:20:46.588 conflict with each other, right?

NOTE Confidence: 0.57877976

00:20:46.588 --> 00:20:47.820 There's there's certain times

NOTE Confidence: 0.57877976

00:20:47.820 --> 00:20:49.680 where they go hand in hand,

NOTE Confidence: 0.57877976

00:20:49.680 --> 00:20:51.380 but if you're trying to

NOTE Confidence: 0.57877976

00:20:51.380 --> 00:20:52.400 maximize total benefits,

NOTE Confidence: 0.57877976

00:20:52.400 --> 00:20:54.320 you're by definition not

NOTE Confidence: 0.57877976

00:20:54.320 --> 00:20:55.760 treating people equally.

NOTE Confidence: 0.57877976

00:20:55.760 --> 00:20:57.360 There's no way around that.

NOTE Confidence: 0.57877976

00:20:57.360 --> 00:20:59.880 So how do you, how do you move forward?

NOTE Confidence: 0.57877976

00:20:59.880 --> 00:21:02.040 This is terrible.

NOTE Confidence: 0.57877976

00:21:02.040 --> 00:21:03.870 Well fortunately Gobin has thought about

NOTE Confidence: 0.57877976

00:21:03.870 --> 00:21:06.598 this a lot and he's a lawyer bioethicist,

NOTE Confidence: 0.57877976

00:21:06.600 --> 00:21:08.760 not at the University of Denver but has

NOTE Confidence: 0.57877976

00:21:08.760 --> 00:21:11.040 spent a lot of time at on the East Coast.

NOTE Confidence: 0.57877976

00:21:11.040 --> 00:21:13.704 And so some of you may have come across

NOTE Confidence: 0.57877976

00:21:13.704 --> 00:21:16.478 in different times is amazing thinker

NOTE Confidence: 0.57877976

00:21:16.480 --> 00:21:18.780 and you know his point is that you

NOTE Confidence: 0.57877976

00:21:18.780 --> 00:21:21.674 have to you can't some some may be

NOTE Confidence: 0.57877976

00:21:21.674 --> 00:21:23.818 better than others and there could be

NOTE Confidence: 0.57877976

00:21:23.818 --> 00:21:25.563 arguments based on more fundamental

NOTE Confidence: 0.57877976

00:21:25.563 --> 00:21:27.423 principles that make may help you

NOTE Confidence: 0.57877976

00:21:27.423 --> 00:21:29.073 rank order the four big categories

NOTE Confidence: 0.57877976

00:21:29.080 --> 00:21:30.556 but you can't ignore them all.

NOTE Confidence: 0.57877976

00:21:30.560 --> 00:21:32.765 You can't ignore ones and you have

NOTE Confidence: 0.57877976

00:21:32.765 --> 00:21:34.640 to do the hard bioethical work

NOTE Confidence: 0.57877976

00:21:34.640 --> 00:21:36.785 to combine them with the multi

NOTE Confidence: 0.57877976

00:21:36.785 --> 00:21:38.360 principle allocation systems.

NOTE Confidence: 0.57877976

00:21:38.360 --> 00:21:39.998 And I think that's very much true.

NOTE Confidence: 0.57877976

00:21:40.000 --> 00:21:41.792 And we'll see as we look at some

NOTE Confidence: 0.57877976

00:21:41.792 --> 00:21:43.148 examples of crisis standards of

NOTE Confidence: 0.57877976

00:21:43.148 --> 00:21:45.480 care and attempts to do just this,

NOTE Confidence: 0.57877976

00:21:45.480 --> 00:21:48.120 invoke multiple ethically relevant

NOTE Confidence: 0.57877976

00:21:48.120 --> 00:21:50.760 principles into a protocol.

NOTE Confidence: 0.57877976

00:21:50.760 --> 00:21:53.280 OK, I got through that quicker than I hoped,

NOTE Confidence: 0.57877976

00:21:53.280 --> 00:21:55.610 which is good because now now we

NOTE Confidence: 0.57877976

00:21:55.610 --> 00:21:57.679 get to the hard part, which is OK,

NOTE Confidence: 0.57877976

00:21:57.679 --> 00:22:00.157 what are the key bioethical controversies?

NOTE Confidence: 0.57877976

00:22:00.160 --> 00:22:01.066 And you know,

NOTE Confidence: 0.57877976

00:22:01.066 --> 00:22:02.878 where this is the bioethic seminar.

NOTE Confidence: 0.57877976

00:22:02.880 --> 00:22:06.096 So we're gonna focus on the

NOTE Confidence: 0.57877976

00:22:06.096 --> 00:22:08.240 life support triage protocols,

NOTE Confidence: 0.57877976

00:22:08.240 --> 00:22:09.840 a lot of hypothetical situations,

NOTE Confidence: 0.57877976

00:22:09.840 --> 00:22:12.040 and engage these deep,

NOTE Confidence: 0.57877976

00:22:12.040 --> 00:22:13.171 deep bioethical issues.

NOTE Confidence: 0.57877976

00:22:13.171 --> 00:22:15.433 I want to say there's entirely

NOTE Confidence: 0.57877976

00:22:15.433 --> 00:22:17.397 another set of equally important,

NOTE Confidence: 0.57877976

00:22:17.400 --> 00:22:19.020 maybe even more important,

NOTE Confidence: 0.57877976

00:22:19.020 --> 00:22:20.640 practical considerations during crisis,

NOTE Confidence: 0.57877976

00:22:20.640 --> 00:22:22.376 tangent care and procedural

NOTE Confidence: 0.57877976

00:22:22.376 --> 00:22:24.546 considerations about load sharing and

NOTE Confidence: 0.57877976

00:22:24.546 --> 00:22:26.998 how how would the triage team work,

NOTE Confidence: 0.57877976

00:22:27.000 --> 00:22:27.452 for example?

NOTE Confidence: 0.57877976

00:22:27.452 --> 00:22:29.260 I'm going to set those all aside so

NOTE Confidence: 0.57877976

00:22:29.308 --> 00:22:31.268 we can just kind of do more thought

NOTE Confidence: 0.57877976

00:22:31.268 --> 00:22:32.275 experiment stuff because that's

NOTE Confidence: 0.57877976

00:22:32.275 --> 00:22:34.155 where we're doing the bio or do it.

NOTE Confidence: 0.57877976

00:22:34.160 --> 00:22:37.880 We're bioethics tonight, right?

NOTE Confidence: 0.57877976

00:22:37.880 --> 00:22:39.861 So these are the four big problems

NOTE Confidence: 0.57877976

00:22:39.861 --> 00:22:41.789 and I'm hoping maybe we can just

NOTE Confidence: 0.57877976

00:22:41.789 --> 00:22:43.752 pause after each one for a brief

NOTE Confidence: 0.57877976

00:22:43.752 --> 00:22:44.880 round of discussion.

NOTE Confidence: 0.32344115

00:22:44.880 --> 00:22:46.476 We never end up getting whatever.

NOTE Confidence: 0.32344115

00:22:46.480 --> 00:22:47.992 I'm worrying when I get to the last one,

NOTE Confidence: 0.32344115

00:22:48.000 --> 00:22:49.380 and that's perhaps the most

NOTE Confidence: 0.32344115

00:22:49.380 --> 00:22:51.429 important that I think we need to

NOTE Confidence: 0.32344115

00:22:51.429 --> 00:22:52.954 resolve before the next pandemic.

NOTE Confidence: 0.32344115

00:22:52.960 --> 00:22:54.913 We need to improve crisis standards of

NOTE Confidence: 0.32344115

00:22:54.913 --> 00:22:57.197 care and deal with these four questions.

NOTE Confidence: 0.32344115

00:22:57.200 --> 00:23:01.320 So first let's take down sofa together, huh?

NOTE Confidence: 0.32344115

00:23:01.320 --> 00:23:04.294 I think we have a lot of friendly

NOTE Confidence: 0.32344115

00:23:04.294 --> 00:23:06.669 people in this room for this particular

NOTE Confidence: 0.32344115

00:23:06.669 --> 00:23:08.880 point so early in the pandemic.

NOTE Confidence: 0.32344115

00:23:08.880 --> 00:23:10.356 Gina Pistacello is now in rush.

NOTE Confidence: 0.32344115

00:23:10.360 --> 00:23:13.246 She's emerging leader in the serious

NOTE Confidence: 0.32344115

00:23:13.246 --> 00:23:15.676 illness conversation space or so.

NOTE Confidence: 0.32344115

00:23:15.680 --> 00:23:17.360 She's now at Pittsburgh, excuse me,

NOTE Confidence: 0.32344115

00:23:17.360 --> 00:23:18.431 since Pittsburgh, Pittsburgh.

NOTE Confidence: 0.32344115

00:23:18.431 --> 00:23:21.370 So watch out for what she's going to do

NOTE Confidence: 0.32344115

00:23:21.370 --> 00:23:23.720 next in terms of clinical medical ethics.

NOTE Confidence: 0.32344115

00:23:23.720 --> 00:23:26.984 She read every single state crisis

NOTE Confidence: 0.32344115

00:23:26.984 --> 00:23:31.056 standard of care protocol in like a week,

NOTE Confidence: 0.32344115

00:23:31.056 --> 00:23:32.478 accurately categorized them,

NOTE Confidence: 0.32344115

00:23:32.480 --> 00:23:34.080 convinced like three other people

NOTE Confidence: 0.32344115

00:23:34.080 --> 00:23:35.680 to check everything she did,

NOTE Confidence: 0.32344115

00:23:35.680 --> 00:23:39.348 and and published the My Eyes Cited

NOTE Confidence: 0.32344115

00:23:39.348 --> 00:23:43.240 paper ever the landmark survey of

NOTE Confidence: 0.32344115

00:23:43.240 --> 00:23:46.080 US ventilator allocation guidelines.

NOTE Confidence: 0.32344115

00:23:46.080 --> 00:23:48.117 And what we found is that everybody,

NOTE Confidence: 0.32344115

00:23:48.120 --> 00:23:50.360 for the most part, was using SOFA.

NOTE Confidence: 0.32344115

00:23:50.360 --> 00:23:52.397 And I'm a pulmonary critical care doctor,

NOTE Confidence: 0.32344115

00:23:52.400 --> 00:23:54.038 so I knew what SOFA was.

NOTE Confidence: 0.32344115

00:23:54.040 --> 00:23:55.240 And this is what, of course,

NOTE Confidence: 0.32344115

00:23:55.240 --> 00:23:58.360 we started to write into our algorithm too.

NOTE Confidence: 0.32344115

00:23:58.360 --> 00:24:01.240 And here's an example of the

NOTE Confidence: 0.32344115

00:24:01.240 --> 00:24:03.880 way SOFA was going to be used.

NOTE Confidence: 0.32344115

00:24:03.880 --> 00:24:05.336 This is from Pennsylvania.

NOTE Confidence: 0.32344115

00:24:05.336 --> 00:24:07.156 It's still on their website.

NOTE Confidence: 0.32344115

00:24:07.160 --> 00:24:08.636 A lot of these are still on the website,

NOTE Confidence: 0.32344115

00:24:08.640 --> 00:24:09.792 even though they've been.

NOTE Confidence: 0.32344115

00:24:09.792 --> 00:24:11.200 We, as we as all show,

NOTE Confidence: 0.32344115

00:24:11.200 --> 00:24:13.132 we've moved on in a big way

NOTE Confidence: 0.32344115

00:24:13.132 --> 00:24:14.879 for some of these ideas.

NOTE Confidence: 0.32344115

00:24:14.880 --> 00:24:17.640 But in order to save the most lives,

NOTE Confidence: 0.32344115

00:24:17.640 --> 00:24:19.880 remember that's the ethical principle.

NOTE Confidence: 0.32344115

00:24:19.880 --> 00:24:22.547 We're going to divide people up into

NOTE Confidence: 0.32344115

00:24:22.547 --> 00:24:24.920 categories based on their sofa score.

NOTE Confidence: 0.32344115

00:24:24.920 --> 00:24:26.320 And I'll explain what the Sofa score is.

NOTE Confidence: 0.32344115

00:24:26.320 --> 00:24:29.264 The next slide where if the sofa scores

NOTE Confidence: 0.32344115

00:24:29.264 --> 00:24:31.160 higher, then we're likely to die,

NOTE Confidence: 0.32344115

00:24:31.160 --> 00:24:31.373 right?

NOTE Confidence: 0.32344115

00:24:31.373 --> 00:24:33.077 So they get more points and it's like,

NOTE Confidence: 0.32344115

00:24:33.080 --> 00:24:34.760 oh, you want less points,

NOTE Confidence: 0.32344115

00:24:34.760 --> 00:24:36.916 lower score is better and people will

NOTE Confidence: 0.32344115

00:24:36.916 --> 00:24:38.840 be rank ordered by their scores.

NOTE Confidence: 0.32344115

00:24:38.840 --> 00:24:40.814 And one interesting thing that Mark and

NOTE Confidence: 0.32344115

00:24:40.814 --> 00:24:42.892 I were talking about on the way over

NOTE Confidence: 0.32344115

00:24:42.892 --> 00:24:44.959 here is by bidding sofa scores together,

NOTE Confidence: 0.32344115

00:24:44.960 --> 00:24:46.322 what you're doing is allowing tie

NOTE Confidence: 0.32344115

00:24:46.322 --> 00:24:48.120 Breakers to kind of kick in more, right?

NOTE Confidence: 0.32344115

00:24:48.120 --> 00:24:50.640 So all right, if you have the same points,

NOTE Confidence: 0.32344115

00:24:50.640 --> 00:24:54.280 two points, and and this primary calculation,

NOTE Confidence: 0.32344115

00:24:54.280 --> 00:24:56.716 then we start to do other considerations,

NOTE Confidence: 0.32344115

00:24:56.720 --> 00:24:58.640 life cycle considerations or

NOTE Confidence: 0.32344115

00:24:58.640 --> 00:25:00.080 fair endings considerations.

NOTE Confidence: 0.32344115

00:25:00.080 --> 00:25:01.994 But hopefully you guys can all

NOTE Confidence: 0.32344115

00:25:01.994 --> 00:25:04.012 appreciate how this is an attempt

NOTE Confidence: 0.32344115

00:25:04.012 --> 00:25:06.034 to take those ethical values and

NOTE Confidence: 0.32344115

00:25:06.034 --> 00:25:07.902 principles I discussed and force

NOTE Confidence: 0.32344115

00:25:07.902 --> 00:25:09.648 it into an actual protocol that

NOTE Confidence: 0.32344115

00:25:09.648 --> 00:25:11.520 could be used in in real life.

NOTE Confidence: 0.32344115

00:25:11.520 --> 00:25:11.600 So

NOTE Confidence: 0.49643952

00:25:14.640 --> 00:25:18.160 what I'm going to focus on is the sofa score.

NOTE Confidence: 0.49643952

00:25:18.160 --> 00:25:20.920 And the problem with the sofa score,

NOTE Confidence: 0.49643952

00:25:20.920 --> 00:25:22.500 the sequential organ failure

NOTE Confidence: 0.49643952

00:25:22.500 --> 00:25:24.080 assessment score is old.

NOTE Confidence: 0.49643952

00:25:24.080 --> 00:25:25.928 It's almost 30 years old now and

NOTE Confidence: 0.49643952

00:25:25.928 --> 00:25:27.639 it's based on expert opinion.

NOTE Confidence: 0.49643952

00:25:27.640 --> 00:25:29.568 So this table, which I see a lot

NOTE Confidence: 0.49643952

00:25:29.568 --> 00:25:31.070 of people squinting their eyes

NOTE Confidence: 0.49643952

00:25:31.070 --> 00:25:33.317 glazing over and I don't blame you,

NOTE Confidence: 0.49643952

00:25:33.320 --> 00:25:35.084 was made-up in the 90s at a

NOTE Confidence: 0.49643952

00:25:35.084 --> 00:25:35.840 critical care conference.

NOTE Confidence: 0.43064556

00:25:37.960 --> 00:25:41.320 It's not based on a regression model that

NOTE Confidence: 0.43064556

00:25:41.320 --> 00:25:44.236 this is to predict like the Apache 2 score,

NOTE Confidence: 0.43064556

00:25:44.240 --> 00:25:47.198 LEPS 2 score or LPS score.

NOTE Confidence: 0.43064556

00:25:47.200 --> 00:25:48.775 Both of those are predictive

NOTE Confidence: 0.43064556

00:25:48.775 --> 00:25:50.350 models designed to predict the

NOTE Confidence: 0.43064556

00:25:50.408 --> 00:25:52.278 outcome Survival ties to discharge,

NOTE Confidence: 0.43064556

00:25:52.280 --> 00:25:53.680 not so far, they just made it up.

NOTE Confidence: 0.43064556

00:25:53.680 --> 00:25:55.330 So it's actually kind of remarkable

NOTE Confidence: 0.43064556

00:25:55.330 --> 00:25:56.386 it predicts anything, right,

NOTE Confidence: 0.43064556

00:25:56.386 --> 00:25:57.968 because that means that means we must

NOTE Confidence: 0.43064556

00:25:57.968 --> 00:25:59.479 know what we're doing in stockers.

NOTE Confidence: 0.43064556

00:25:59.480 --> 00:26:01.664 So the the this first column is

NOTE Confidence: 0.43064556

00:26:01.664 --> 00:26:03.999 the degree of respiratory failure

NOTE Confidence: 0.43064556

00:26:04.000 --> 00:26:05.918 and the more the lower your PA,

NOTE Confidence: 0.43064556

00:26:05.920 --> 00:26:09.852 O2, FI, O2 ratio is the the work

NOTE Confidence: 0.43064556

00:26:09.852 --> 00:26:11.076 of hypoxic respiratory failure.

NOTE Confidence: 0.43064556

00:26:11.080 --> 00:26:13.520 So that's the first column In the

NOTE Confidence: 0.43064556

00:26:13.520 --> 00:26:15.120 in the third column here or the 4th

NOTE Confidence: 0.43064556

00:26:15.174 --> 00:26:16.724 column you'll see this cardiovascular

NOTE Confidence: 0.43064556

00:26:16.724 --> 00:26:18.274 column which is supposed to

NOTE Confidence: 0.43064556

00:26:18.327 --> 00:26:19.757 measure the severity of shock.

NOTE Confidence: 0.43064556

00:26:19.760 --> 00:26:21.629 And for those again in the critical

NOTE Confidence: 0.43064556

00:26:21.629 --> 00:26:23.172 care space or anybody who's really

NOTE Confidence: 0.43064556

00:26:23.172 --> 00:26:25.320 worked in a in a in a hospital,

NOTE Confidence: 0.43064556

00:26:25.320 --> 00:26:26.598 well, we don't use that much,

NOTE Confidence: 0.43064556

00:26:26.600 --> 00:26:28.546 don't need anymore for very good reasons

NOTE Confidence: 0.43064556

00:26:28.546 --> 00:26:30.908 and we have a lot of other vasoactive

NOTE Confidence: 0.43064556

00:26:30.908 --> 00:26:33.079 medicines that are not listed on that row.

NOTE Confidence: 0.43064556

00:26:33.080 --> 00:26:35.240 Speaking to that in practice people

NOTE Confidence: 0.43064556

00:26:35.240 --> 00:26:37.490 do not calculate this according to

NOTE Confidence: 0.43064556

00:26:37.490 --> 00:26:39.716 their original formula in any way.

NOTE Confidence: 0.43064556

00:26:39.720 --> 00:26:42.312 And but that being said about

NOTE Confidence: 0.43064556

00:26:42.312 --> 00:26:44.040 all those potential problems,

NOTE Confidence: 0.43064556

00:26:44.040 --> 00:26:45.400 it actually works pretty well

NOTE Confidence: 0.43064556

00:26:45.400 --> 00:26:47.000 for patients already in the ICU.

NOTE Confidence: 0.43064556

00:26:47.000 --> 00:26:49.136 If you make a couple corrections

NOTE Confidence: 0.43064556

00:26:49.136 --> 00:26:50.560 in that cardiovascular component,

NOTE Confidence: 0.43064556

00:26:50.560 --> 00:26:51.502 you calculate it.

NOTE Confidence: 0.43064556

00:26:51.502 --> 00:26:53.386 And if someone's been in the

NOTE Confidence: 0.43064556

00:26:53.386 --> 00:26:55.600 ICU for 48 hours and you have

NOTE Confidence: 0.43064556

00:26:55.600 --> 00:26:57.240 time to calculate all those,

NOTE Confidence: 0.43064556

00:26:57.240 --> 00:26:58.720 get all those laboratory measurements,

NOTE Confidence: 0.43064556

00:26:58.720 --> 00:27:00.922 calculate the score and take the

NOTE Confidence: 0.43064556

00:27:00.922 --> 00:27:03.437 maximum and worst value in all of them,

NOTE Confidence: 0.43064556

00:27:03.440 --> 00:27:04.524 it works pretty well.

NOTE Confidence: 0.43064556

00:27:04.524 --> 00:27:06.997 So this is the SOFA scores on the X axis.

NOTE Confidence: 0.43064556

00:27:07.000 --> 00:27:08.988 This is a large population of the

NOTE Confidence: 0.43064556

00:27:08.988 --> 00:27:10.208 patients with susceptive infection

NOTE Confidence: 0.43064556

00:27:10.208 --> 00:27:11.798 in Australia and New Zealand.

NOTE Confidence: 0.43064556

00:27:11.800 --> 00:27:14.332 ICU and the locality should have

NOTE Confidence: 0.43064556

00:27:14.332 --> 00:27:16.440 like logistic function right then.

NOTE Confidence: 0.43064556

00:27:16.440 --> 00:27:17.576 The higher sofa score,

NOTE Confidence: 0.43064556

00:27:17.576 --> 00:27:18.996 the more likelier to die,

NOTE Confidence: 0.43064556

00:27:19.000 --> 00:27:22.056 each one of these points turning into

NOTE Confidence: 0.43064556

00:27:22.056 --> 00:27:25.960 like a 5% or so increase in mortality.

NOTE Confidence: 0.43064556

00:27:25.960 --> 00:27:29.278 However, that's not the triage situation.

NOTE Confidence: 0.43064556

00:27:29.280 --> 00:27:31.050 That's the triage situation is

NOTE Confidence: 0.43064556

00:27:31.050 --> 00:27:33.319 that the patients in front of you,

NOTE Confidence: 0.43064556

00:27:33.320 --> 00:27:34.838 you have much you don't have

NOTE Confidence: 0.43064556

00:27:34.838 --> 00:27:36.533 48 hours of information of them

NOTE Confidence: 0.43064556

00:27:36.533 --> 00:27:37.797 already receiving life support.

NOTE Confidence: 0.43064556

00:27:37.800 --> 00:27:39.645 You have to decide whether or not to put

NOTE Confidence: 0.43064556

00:27:39.645 --> 00:27:41.394 them on life support in the 1st place.

NOTE Confidence: 0.43064556

00:27:41.400 --> 00:27:41.840 So

NOTE Confidence: 0.52479213

00:27:45.720 --> 00:27:48.456 when you actually evaluate it as a triage

NOTE Confidence: 0.52479213

00:27:48.456 --> 00:27:50.068 score, SOFA performs quite poorly.

NOTE Confidence: 0.52479213

00:27:50.068 --> 00:27:52.800 So this is the area of the receiver

NOTE Confidence: 0.52479213

00:27:52.800 --> 00:27:54.775 under the receiver operating curve

NOTE Confidence: 0.52479213

00:27:54.775 --> 00:27:56.355 or measure of discrimination.

NOTE Confidence: 0.52479213

00:27:56.360 --> 00:27:58.160 A coin flip is, you know,

NOTE Confidence: 0.52479213

00:27:58.160 --> 00:28:00.603 this has this dotted line here and

NOTE Confidence: 0.52479213

00:28:00.603 --> 00:28:02.731 as you can see sofa's not doing

NOTE Confidence: 0.52479213

00:28:02.731 --> 00:28:04.273 much better than flipping a coin.

NOTE Confidence: 0.52479213

00:28:04.280 --> 00:28:07.675 It's a near sort of lottery situation.

NOTE Confidence: 0.52479213

00:28:07.680 --> 00:28:10.524 And so this was a landmark paper that I

NOTE Confidence: 0.52479213

00:28:10.524 --> 00:28:12.317 think casts a lot of doubts about using

NOTE Confidence: 0.52479213

00:28:12.317 --> 00:28:14.000 SOFA in the crisis Standards of Care

NOTE Confidence: 0.52479213

00:28:14.000 --> 00:28:15.920 is that it doesn't work well in this,

NOTE Confidence: 0.52479213

00:28:15.920 --> 00:28:19.196 in the situation that people are applying.

NOTE Confidence: 0.52479213

00:28:19.200 --> 00:28:22.240 And on top of that,

NOTE Confidence: 0.52479213

00:28:22.240 --> 00:28:23.940 the SOFA score would exacerbate

NOTE Confidence: 0.52479213

00:28:23.940 --> 00:28:24.920 health inequity.

NOTE Confidence: 0.52479213

00:28:24.920 --> 00:28:26.108 It doesn't incorporate age,

NOTE Confidence: 0.52479213

00:28:26.108 --> 00:28:27.593 which we'll talk about next,

NOTE Confidence: 0.52479213

00:28:27.600 --> 00:28:30.260 but it also uses the patient's absolute

NOTE Confidence: 0.52479213

00:28:30.260 --> 00:28:33.078 value of creatinine to compute a renal score,

NOTE Confidence: 0.52479213

00:28:33.080 --> 00:28:33.455 right.

NOTE Confidence: 0.52479213

00:28:33.455 --> 00:28:36.080 So this is problematic for two reasons.

NOTE Confidence: 0.52479213

00:28:36.080 --> 00:28:38.159 One, some patients end up or show up to

NOTE Confidence: 0.52479213

00:28:38.159 --> 00:28:40.438 the hospital with chronic kidney disease,

NOTE Confidence: 0.52479213

00:28:40.440 --> 00:28:42.239 so they have higher creatinines at baseline,

NOTE Confidence: 0.52479213

00:28:42.240 --> 00:28:44.886 but it's not an acute problem and

NOTE Confidence: 0.52479213

00:28:44.886 --> 00:28:47.395 they might walk in the door with

NOTE Confidence: 0.52479213

00:28:47.395 --> 00:28:49.202 like two or three cell phone points

NOTE Confidence: 0.52479213

00:28:49.202 --> 00:28:50.800 just 'cause they have chronic kidney

NOTE Confidence: 0.52479213

00:28:50.800 --> 00:28:52.760 disease that's in no way correlated to

NOTE Confidence: 0.52479213

00:28:52.760 --> 00:28:54.517 their probability of actually dying.

NOTE Confidence: 0.52479213

00:28:54.520 --> 00:28:54.720 And

NOTE Confidence: 0.27280143

00:28:57.400 --> 00:28:59.794 the second problem is that certain

NOTE Confidence: 0.27280143

00:28:59.794 --> 00:29:01.760 populations with higher muscle mass,

NOTE Confidence: 0.27280143

00:29:01.760 --> 00:29:03.280 particularly those people who

NOTE Confidence: 0.27280143

00:29:03.280 --> 00:29:04.800 are self identified black,

NOTE Confidence: 0.27280143

00:29:04.800 --> 00:29:06.192 have higher creatinine bodies.

NOTE Confidence: 0.27280143

00:29:06.192 --> 00:29:09.000 This is this whole estimated GFR controversy,

NOTE Confidence: 0.27280143

00:29:09.000 --> 00:29:11.352 why race was used in the

NOTE Confidence: 0.27280143

00:29:11.352 --> 00:29:12.920 equation to begin with.

NOTE Confidence: 0.27280143

00:29:12.920 --> 00:29:15.216 And so the same patient with the same

NOTE Confidence: 0.27280143

00:29:15.216 --> 00:29:17.604 amount of renal function might get who's

NOTE Confidence: 0.27280143

00:29:17.604 --> 00:29:19.768 black might get two points compared

NOTE Confidence: 0.27280143

00:29:19.768 --> 00:29:21.916 to one for somebody who's white.

NOTE Confidence: 0.37383443

00:29:24.360 --> 00:29:29.116 So a lot of people have gone on

NOTE Confidence: 0.37383443

00:29:29.116 --> 00:29:31.624 to examine the potential bias of

NOTE Confidence: 0.37383443

00:29:31.624 --> 00:29:34.359 surface core against black patients.

NOTE Confidence: 0.37383443

00:29:34.360 --> 00:29:38.120 Most notable here at Yale,

NOTE Confidence: 0.37383443

00:29:38.120 --> 00:29:40.150 where I was very inspired by both

NOTE Confidence: 0.37383443

00:29:40.150 --> 00:29:42.091 of these papers to replicate your

NOTE Confidence: 0.37383443

00:29:42.091 --> 00:29:43.837 findings in the EICU data set.

NOTE Confidence: 0.37383443

00:29:43.840 --> 00:29:45.240 I don't know when they were polished,

NOTE Confidence: 0.37383443

00:29:45.240 --> 00:29:47.011 but you know I was very they're

NOTE Confidence: 0.37383443

00:29:47.011 --> 00:29:48.400 all about the same time.

NOTE Confidence: 0.37383443

00:29:48.400 --> 00:29:50.000 We all were thinking alike,

NOTE Confidence: 0.37383443

00:29:50.000 --> 00:29:52.436 and we all show that black patients

NOTE Confidence: 0.37383443

00:29:52.436 --> 00:29:55.151 would have higher SOPA scores than white

NOTE Confidence: 0.37383443

00:29:55.151 --> 00:29:57.474 patients with the same survival, right.

NOTE Confidence: 0.37383443

00:29:57.474 --> 00:29:59.358 So instead of giving because of

NOTE Confidence: 0.37383443

00:29:59.358 --> 00:30:00.970 that chronic kidney disease point

NOTE Confidence: 0.37383443

00:30:00.970 --> 00:30:02.800 or the OR the creatinine point,

NOTE Confidence: 0.37383443

00:30:02.800 --> 00:30:05.250 a white person will get a sofa of or be

NOTE Confidence: 0.37383443

00:30:05.314 --> 00:30:07.636 more likely to allocate a ventilator.

NOTE Confidence: 0.37383443

00:30:07.640 --> 00:30:09.872 Black person will get a SOFA score of five.

NOTE Confidence: 0.37383443

00:30:09.880 --> 00:30:12.456 So that's a a form of actual

NOTE Confidence: 0.37383443

00:30:12.456 --> 00:30:13.749 statistical bias, right,

NOTE Confidence: 0.37383443

00:30:13.749 --> 00:30:15.396 It's it's miscalibrated.

NOTE Confidence: 0.37383443

00:30:15.396 --> 00:30:18.141 So it was miscalibrated against

NOTE Confidence: 0.37383443

00:30:18.141 --> 00:30:20.597 patients who identified as black.

NOTE Confidence: 0.37383443

00:30:20.600 --> 00:30:21.600 And this is a big,

NOTE Confidence: 0.37383443

00:30:21.600 --> 00:30:24.078 this is a really nice figure from

NOTE Confidence: 0.37383443

00:30:24.080 --> 00:30:27.604 Deepishana's version of this paper,

NOTE Confidence: 0.37383443

00:30:27.604 --> 00:30:30.310 which was using pen and cosmic

NOTE Confidence: 0.37383443

00:30:30.396 --> 00:30:33.554 fermente data and they show that 10%

NOTE Confidence: 0.37383443

00:30:33.554 --> 00:30:36.158 of black patients would be assigned

NOTE Confidence: 0.37383443

00:30:36.158 --> 00:30:38.137 to inappropriate SOFA level, right.

NOTE Confidence: 0.37383443

00:30:38.137 --> 00:30:39.804 So it would effect on 10% of them

NOTE Confidence: 0.37383443

00:30:39.804 --> 00:30:41.616 and most of the city's patients

NOTE Confidence: 0.37383443

00:30:41.616 --> 00:30:43.920 would be shunted into these higher,

NOTE Confidence: 0.37383443

00:30:43.920 --> 00:30:44.652 higher groups.

NOTE Confidence: 0.37383443

00:30:44.652 --> 00:30:47.580 And we found the same thing that for

NOTE Confidence: 0.37383443

00:30:47.655 --> 00:30:50.600 conditional upon their assigned priority,

NOTE Confidence: 0.37383443

00:30:50.600 --> 00:30:52.075 black patients are much more

NOTE Confidence: 0.37383443

00:30:52.075 --> 00:30:52.960 likely to survive.

NOTE Confidence: 0.37383443

00:30:52.960 --> 00:30:54.560 So it's a little confusing,

NOTE Confidence: 0.37383443

00:30:54.560 --> 00:30:58.436 but basically the score is assigning

NOTE Confidence: 0.37383443

00:30:58.440 --> 00:31:00.652 a higher level of mortality risk to

NOTE Confidence: 0.37383443

00:31:00.652 --> 00:31:02.758 black patients than they actually have,

NOTE Confidence: 0.37383443

00:31:02.760 --> 00:31:05.200 which is a form of bias that leads to both.

NOTE Confidence: 0.37383443

00:31:05.200 --> 00:31:06.433 Obviously it's discriminatory

NOTE Confidence: 0.37383443

00:31:06.433 --> 00:31:08.077 and it's black people,

NOTE Confidence: 0.37383443

00:31:08.080 --> 00:31:11.080 but it's also inefficient because

NOTE Confidence: 0.37383443

00:31:11.080 --> 00:31:14.080 it's worse at identifying survivors.

NOTE Confidence: 0.37383443

00:31:14.080 --> 00:31:19.240 So the really we took a a

NOTE Confidence: 0.37383443

00:31:19.240 --> 00:31:19.975 population with COVID-19,

NOTE Confidence: 0.37383443

00:31:19.975 --> 00:31:21.959 a lot of the pre prior studies were

NOTE Confidence: 0.37383443

00:31:21.959 --> 00:31:23.520 pre you know like the pandemic was

NOTE Confidence: 0.37383443

00:31:23.520 --> 00:31:24.768 still going on so there wasn't

NOTE Confidence: 0.37383443

00:31:24.768 --> 00:31:25.713 a lot of COVID data.

NOTE Confidence: 0.37383443

00:31:25.720 --> 00:31:29.280 So this is the same sort of analysis,

NOTE Confidence: 0.37383443

00:31:29.280 --> 00:31:31.812 but in patients who had COVID-19

NOTE Confidence: 0.37383443

00:31:31.812 --> 00:31:33.078 required mechanical ventilator.

NOTE Confidence: 0.37383443

00:31:33.080 --> 00:31:35.117 We also added a little bit more,

NOTE Confidence: 0.37383443

00:31:35.120 --> 00:31:36.908 met the logic breaker here with

NOTE Confidence: 0.37383443

00:31:36.908 --> 00:31:38.480 a very simple simulation where

NOTE Confidence: 0.37383443

00:31:38.480 --> 00:31:39.760 we applied triage rules.

NOTE Confidence: 0.34667003

00:31:41.840 --> 00:31:43.648 And when we did that, unsurprisingly,

NOTE Confidence: 0.34667003

00:31:43.648 --> 00:31:47.296 we found that using a silicate

NOTE Confidence: 0.34667003

00:31:47.296 --> 00:31:49.816 tier system would systematically

NOTE Confidence: 0.34667003

00:31:49.816 --> 00:31:52.408 disadvantage individuals who identified

NOTE Confidence: 0.34667003

00:31:52.408 --> 00:31:56.880 as black without improving efficiency.

NOTE Confidence: 0.34667003

00:31:56.880 --> 00:31:59.200 In fact, it performed substantially

NOTE Confidence: 0.34667003

00:31:59.200 --> 00:32:02.780 worse than young is first or a

NOTE Confidence: 0.34667003

00:32:02.780 --> 00:32:05.656 combination model and not as you

NOTE Confidence: 0.34667003

00:32:05.656 --> 00:32:08.080 can see in the lottery system.

NOTE Confidence: 0.34667003

00:32:08.080 --> 00:32:09.428 Black and Hispanic people,

NOTE Confidence: 0.34667003

00:32:09.428 --> 00:32:11.113 although it's not significant actually

NOTE Confidence: 0.34667003

00:32:11.113 --> 00:32:13.239 have higher survival than white patients.

NOTE Confidence: 0.34667003

00:32:13.240 --> 00:32:14.810 And that's because white patients

NOTE Confidence: 0.34667003

00:32:14.810 --> 00:32:16.769 who end up in respiratory failure

NOTE Confidence: 0.34667003

00:32:16.769 --> 00:32:18.109 with COVID-19 throughout the

NOTE Confidence: 0.34667003

00:32:18.109 --> 00:32:20.160 pandemic tended to be much older,

NOTE Confidence: 0.34667003

00:32:20.160 --> 00:32:22.560 which will be the next topic

NOTE Confidence: 0.34667003

00:32:22.560 --> 00:32:23.760 of the discussion.

NOTE Confidence: 0.34667003

00:32:23.760 --> 00:32:26.436 And unfortunately because of some actions,

NOTE Confidence: 0.34667003

00:32:26.440 --> 00:32:27.384 misguided actions,

NOTE Confidence: 0.34667003

00:32:27.384 --> 00:32:29.194 I believe by, you know,

NOTE Confidence: 0.34667003

00:32:29.194 --> 00:32:30.376 office civil rights from the Department

NOTE Confidence: 0.34667003

00:32:30.376 --> 00:32:31.438 of Health and Human Services,

NOTE Confidence: 0.34667003

00:32:31.440 --> 00:32:33.288 SOFA is now even more dominant in

NOTE Confidence: 0.34667003

00:32:33.288 --> 00:32:34.644 crisis standards care protocols across

NOTE Confidence: 0.34667003

00:32:34.644 --> 00:32:36.436 the country than it used to be.

NOTE Confidence: 0.34667003

00:32:36.440 --> 00:32:39.908 This is a paper from May 2022

NOTE Confidence: 0.34667003

00:32:39.908 --> 00:32:42.476 and most states now have one.

NOTE Confidence: 0.34667003

00:32:42.480 --> 00:32:42.930 You know,

NOTE Confidence: 0.34667003

00:32:42.930 --> 00:32:44.730 remember our first map had a lot more

NOTE Confidence: 0.34667003

00:32:44.780 --> 00:32:46.600 holes because everyone was scrambling.

NOTE Confidence: 0.34667003

00:32:46.600 --> 00:32:49.435 Now it's still in some states had no plan.

NOTE Confidence: 0.34667003

00:32:49.440 --> 00:32:50.610 I don't know.

NOTE Confidence: 0.34667003

00:32:50.610 --> 00:32:53.947 And the plan is SOFA for the vast

NOTE Confidence: 0.34667003

00:32:53.947 --> 00:32:56.900 majority of these sofa in various forms

NOTE Confidence: 0.34667003

00:32:56.900 --> 00:32:59.680 with little other elements of the protocol.

NOTE Confidence: 0.34667003

00:32:59.680 --> 00:33:02.053 So I think this is really deeply

NOTE Confidence: 0.34667003

00:33:02.053 --> 00:33:04.494 problematic and one of the things is the

NOTE Confidence: 0.34667003

00:33:04.494 --> 00:33:07.596 main gap our grant is trying to fail.

NOTE Confidence: 0.34667003

00:33:07.600 --> 00:33:11.452 So in conclusion you know so I

NOTE Confidence: 0.34667003

00:33:11.452 --> 00:33:13.210 think I've said all this sofa's

NOTE Confidence: 0.34667003

00:33:13.285 --> 00:33:15.439 outdated it's not a triage score.

NOTE Confidence: 0.34667003

00:33:15.440 --> 00:33:17.372 It's less accurate than the Young's

NOTE Confidence: 0.34667003

00:33:17.372 --> 00:33:19.006 first and statistically diet but

NOTE Confidence: 0.34667003

00:33:19.006 --> 00:33:20.441 advised means black patients which

NOTE Confidence: 0.34667003

00:33:20.441 --> 00:33:22.200 makes it even more inaccurate.

NOTE Confidence: 0.34667003

00:33:22.200 --> 00:33:24.400 So I I think SOFA,

NOTE Confidence: 0.34667003

00:33:24.400 --> 00:33:26.074 you know should be eliminated in

NOTE Confidence: 0.34667003

00:33:26.074 --> 00:33:27.784 crisis and secure protocols across the

NOTE Confidence: 0.34667003

00:33:27.784 --> 00:33:29.404 country and replaced with a better

NOTE Confidence: 0.34667003

00:33:29.404 --> 00:33:31.435 triage score than one that we're working on.

NOTE Confidence: 0.45257384

00:33:33.560 --> 00:33:36.880 So that's the first problem.

NOTE Confidence: 0.45257384

00:33:36.880 --> 00:33:38.844 I obviously have awesome

NOTE Confidence: 0.45257384

00:33:38.844 --> 00:33:40.317 strong opinionated conclusions.

NOTE Confidence: 0.45257384

00:33:40.320 --> 00:33:41.755 I'm not asking for someone to defend.

NOTE Confidence: 0.45257384

00:33:41.760 --> 00:33:43.504 So Mark, I don't know if you want

NOTE Confidence: 0.45257384

00:33:43.504 --> 00:33:45.375 me to move on to age or if if

NOTE Confidence: 0.45257384

00:33:45.375 --> 00:33:47.289 you want to have any questions or

NOTE Confidence: 0.45257384

00:33:47.289 --> 00:33:49.194 feedback just about that this this.

NOTE Confidence: 0.45257384

00:33:49.194 --> 00:33:51.078 So let me, because I didn't,

NOTE Confidence: 0.45257384

00:33:51.080 --> 00:33:54.436 I I didn't do my job beautifully

NOTE Confidence: 0.6678989

00:33:54.440 --> 00:33:55.025 at the beginning,

NOTE Confidence: 0.6678989

00:33:55.025 --> 00:33:56.390 which was to remind you guys and

NOTE Confidence: 0.6678989

00:33:56.429 --> 00:33:58.120 let you know that we're going to go,

NOTE Confidence: 0.6678989

00:33:58.120 --> 00:34:01.165 we're going to go until 6:30 and then

NOTE Confidence: 0.6678989

00:34:01.165 --> 00:34:02.320 there's going to be a hard stop.

NOTE Confidence: 0.6678989

00:34:02.320 --> 00:34:03.600 So I apologize if there's something

NOTE Confidence: 0.6678989

00:34:03.600 --> 00:34:04.720 you really wanted to ask or say

NOTE Confidence: 0.6678989

00:34:04.720 --> 00:34:08.440 and you didn't get the chance. However,

NOTE Confidence: 0.6678989

00:34:08.440 --> 00:34:10.800 typically the speaker goes in total 5:50 or

NOTE Confidence: 0.6678989

00:34:10.800 --> 00:34:12.210 5:00 to 6:00 and then we

NOTE Confidence: 0.6678989

00:34:12.210 --> 00:34:13.079 have questions, but the way

NOTE Confidence: 0.6678989

00:34:13.280 --> 00:34:14.528 Will's outlined this week and kind

NOTE Confidence: 0.6678989

00:34:14.528 --> 00:34:16.159 of stop at each of these important

NOTE Confidence: 0.479315828

00:34:16.160 --> 00:34:18.080 points and have a conversation.

NOTE Confidence: 0.479315828

00:34:18.080 --> 00:34:19.039 So I would say if someone wants

NOTE Confidence: 0.479315828

00:34:19.039 --> 00:34:20.460 to speak specifically to the

NOTE Confidence: 0.479315828

00:34:20.460 --> 00:34:22.358 sofa issue now we can do that.

NOTE Confidence: 0.479315828

00:34:22.360 --> 00:34:24.079 But I want to tell you one other thing,

NOTE Confidence: 0.479315828

00:34:24.080 --> 00:34:25.700 since I'm up here and have

NOTE Confidence: 0.479315828

00:34:25.700 --> 00:34:27.160 the podium, Karen Cold,

NOTE Confidence: 0.479315828

00:34:27.160 --> 00:34:29.132 who organizes these things so nicely,

NOTE Confidence: 0.479315828

00:34:29.132 --> 00:34:30.386 is herself out sick.

NOTE Confidence: 0.479315828

00:34:30.386 --> 00:34:32.916 So we wish Karen a speedy recovery.

NOTE Confidence: 0.479315828

00:34:32.920 --> 00:34:35.384 She reminds me to remind the people in

NOTE Confidence: 0.479315828

00:34:35.384 --> 00:34:37.280 Zoom land this number which Karen, please

NOTE Confidence: 0.43217006

00:34:37.280 --> 00:34:38.320 add it to the chat. Also

NOTE Confidence: 0.43217006

00:34:41.680 --> 00:34:42.613 203-442-9435, that's the

NOTE Confidence: 0.43217006

00:34:42.613 --> 00:34:44.479 number to get your CME credit.

NOTE Confidence: 0.60076916

00:34:47.360 --> 00:34:51.040 2O3442, 9435 out of town, please call

NOTE Confidence: 0.60076916

00:34:49.440 --> 00:34:50.840 collect. No, that's not right. And

NOTE Confidence: 0.60076916

00:34:51.040 --> 00:34:52.438 the code is

NOTE Confidence: 0.60076916

00:34:56.400 --> 00:34:57.691 409-624-0962. So that's enough

NOTE Confidence: 0.60076916

00:34:57.691 --> 00:34:58.879 housekeeping. I think it's

NOTE Confidence: 0.60076916

00:34:58.880 --> 00:34:59.680 fine. Mark has something

NOTE Confidence: 0.60076916

00:34:59.680 --> 00:35:01.048 he wants to say about sofa.

NOTE Confidence: 0.60076916

00:35:01.048 --> 00:35:02.840 So why don't we spend like because

NOTE Confidence: 0.60076916

00:35:02.840 --> 00:35:03.785 I know, I know will you would

NOTE Confidence: 0.60076916

00:35:03.785 --> 00:35:04.919 want to get to the other problem.

NOTE Confidence: 0.60076916

00:35:04.920 --> 00:35:06.740 So let's do, let's spend 5 minutes

NOTE Confidence: 0.60076916

00:35:06.740 --> 00:35:08.033 talking about sofa and then move

NOTE Confidence: 0.60076916

00:35:08.033 --> 00:35:09.398 on to the next. Go ahead, Mark.

NOTE Confidence: 0.2821584

00:35:16.720 --> 00:35:18.464 Yeah, I I I should also say thanks

NOTE Confidence: 0.2821584

00:35:18.464 --> 00:35:20.120 so much Amir that especially for

NOTE Confidence: 0.2821584

00:35:20.120 --> 00:35:21.280 the folks who are on the Zoom call,

NOTE Confidence: 0.2821584

00:35:21.280 --> 00:35:23.520 Please wait till you get the microphone.

NOTE Confidence: 0.2821584

00:35:23.520 --> 00:35:24.396 I should have thought of that.

NOTE Confidence: 0.2821584

00:35:24.400 --> 00:35:25.040 Thank you Amir. So, so

NOTE Confidence: 0.2821584

00:35:27.640 --> 00:35:30.792 yeah, I I think we did a good job so far.

NOTE Confidence: 0.2821584

00:35:30.792 --> 00:35:31.848 So it can be replaced with

NOTE Confidence: 0.2821584

00:35:31.848 --> 00:35:34.208 something and I'm excited to hear

NOTE Confidence: 0.2821584

00:35:34.208 --> 00:35:36.140 about why you're working on.

NOTE Confidence: 0.2821584

00:35:36.140 --> 00:35:38.512 But pending that you know I, I,

NOTE Confidence: 0.2821584

00:35:38.512 --> 00:35:41.022 I in parts of some sessions where we

NOTE Confidence: 0.2821584

00:35:41.022 --> 00:35:42.736 talked about other severity illness

NOTE Confidence: 0.2821584

00:35:42.736 --> 00:35:44.950 sports and I I thought practically

NOTE Confidence: 0.2821584

00:35:44.950 --> 00:35:47.080 software was chosen but very simple.

NOTE Confidence: 0.2821584

00:35:47.080 --> 00:35:49.600 But even if you look at Apache

NOTE Confidence: 0.2821584

00:35:49.600 --> 00:35:51.680 two and talk to the developers,

NOTE Confidence: 0.2821584

00:35:51.680 --> 00:35:53.560 they said these were population

NOTE Confidence: 0.2821584

00:35:53.560 --> 00:35:55.738 statistics to sort of adjust in

NOTE Confidence: 0.2821584

00:35:55.738 --> 00:35:57.959 large clinical trials and things like

NOTE Confidence: 0.31171604

00:35:57.960 --> 00:36:00.160 that. They weren't really intended

NOTE Confidence: 0.3152254

00:36:00.160 --> 00:36:03.232 to be a bed side test. Yeah.

NOTE Confidence: 0.3152254

00:36:03.232 --> 00:36:05.104 The question about how an individual

NOTE Confidence: 0.3152254

00:36:05.104 --> 00:36:06.932 person was going to do So do we

NOTE Confidence: 0.3152254

00:36:06.932 --> 00:36:08.168 anticipate that there are any trials

NOTE Confidence: 0.3152254

00:36:08.168 --> 00:36:09.719 that would actually work well in an or,

NOTE Confidence: 0.3152254

00:36:12.160 --> 00:36:13.620 you know, measure that you can

NOTE Confidence: 0.3152254

00:36:13.620 --> 00:36:14.600 use for individual patients?

NOTE Confidence: 0.3152254

00:36:14.600 --> 00:36:15.880 That would be, yeah,

NOTE Confidence: 0.3152254

00:36:15.880 --> 00:36:17.718 I know the next, the next topic

NOTE Confidence: 0.3152254

00:36:17.718 --> 00:36:18.834 when we start talking about age,

NOTE Confidence: 0.3152254

00:36:18.840 --> 00:36:20.838 I think a score, you know,

NOTE Confidence: 0.3152254

00:36:20.840 --> 00:36:22.576 kind of giving away when we're talking

NOTE Confidence: 0.3152254

00:36:22.576 --> 00:36:24.805 about a score that includes age and

NOTE Confidence: 0.3152254

00:36:24.805 --> 00:36:26.237 several important clinical predictors.

NOTE Confidence: 0.3152254

00:36:26.240 --> 00:36:27.440 Like is the patient in shock,

NOTE Confidence: 0.3152254

00:36:27.440 --> 00:36:28.440 the degree of their hypoxia,

NOTE Confidence: 0.3152254

00:36:28.440 --> 00:36:30.404 respiratory failure in combination

NOTE Confidence: 0.3152254

00:36:30.404 --> 00:36:33.835 with perhaps having a four hour trial

NOTE Confidence: 0.3152254

00:36:33.835 --> 00:36:36.265 period on life support to collect

NOTE Confidence: 0.3152254

00:36:36.265 --> 00:36:38.838 more data that if we fit a score,

NOTE Confidence: 0.3152254

00:36:38.840 --> 00:36:40.304 a multigradable prediction model

NOTE Confidence: 0.3152254

00:36:40.304 --> 00:36:41.778 of that Haitian population.

NOTE Confidence: 0.3152254

00:36:41.778 --> 00:36:44.361 I think we can get something that's

NOTE Confidence: 0.3152254

00:36:44.361 --> 00:36:46.389 parsimonious that doesn't require a lot

NOTE Confidence: 0.3152254

00:36:46.389 --> 00:36:48.321 of heavy duty calculation trying to

NOTE Confidence: 0.3152254

00:36:48.321 --> 00:36:50.230 avoid sort of deep learning AI approaches,

NOTE Confidence: 0.3152254

00:36:50.230 --> 00:36:51.880 which I'm always very excited about.

NOTE Confidence: 0.3152254

00:36:51.880 --> 00:36:54.553 But it I think in practice like you said,

NOTE Confidence: 0.3152254

00:36:54.560 --> 00:36:56.756 SOFA was chosen because it's practical.

NOTE Confidence: 0.3152254

00:36:56.760 --> 00:36:58.594 We can sort of see how someone

NOTE Confidence: 0.3152254

00:36:58.594 --> 00:36:59.880 can calculate the bedside.

NOTE Confidence: 0.3152254

00:36:59.880 --> 00:37:01.882 Although if you ever look at those

NOTE Confidence: 0.3152254

00:37:01.882 --> 00:37:03.904 SOFA scores that are epic and then

NOTE Confidence: 0.3152254

00:37:03.904 --> 00:37:05.554 you look at the actual numbers,

NOTE Confidence: 0.3152254

00:37:05.560 --> 00:37:06.919 they're very discordant.

NOTE Confidence: 0.3152254

00:37:06.919 --> 00:37:09.637 So I think SOFA is actually

NOTE Confidence: 0.3152254

00:37:09.640 --> 00:37:12.760 fairly complicated to calculate.

NOTE Confidence: 0.3152254

00:37:12.760 --> 00:37:14.800 So you know personality is

NOTE Confidence: 0.3152254

00:37:14.800 --> 00:37:16.432 not a partners for.

NOTE Confidence: 0.3152254

00:37:16.440 --> 00:37:20.344 I mean the related thing is one of the things

NOTE Confidence: 0.3152254

00:37:20.344 --> 00:37:24.038 we working on this system is trajectory.

NOTE Confidence: 0.3152254

00:37:24.040 --> 00:37:24.504 You know,

NOTE Confidence: 0.3152254

00:37:24.504 --> 00:37:25.664 you you see somebody getting

NOTE Confidence: 0.3152254

00:37:25.664 --> 00:37:26.960 better and somebody getting worse.

NOTE Confidence: 0.3152254

00:37:26.960 --> 00:37:28.400 And that's.

NOTE Confidence: 0.3152254

00:37:28.400 --> 00:37:28.659 Yeah,

NOTE Confidence: 0.3152254

00:37:28.659 --> 00:37:28.918 no,

NOTE Confidence: 0.3152254

00:37:28.918 --> 00:37:30.472 that's why we really should try

NOTE Confidence: 0.3152254

00:37:30.472 --> 00:37:32.255 to get to the platform because

NOTE Confidence: 0.3152254

00:37:32.255 --> 00:37:34.132 then that's that's exactly right.

NOTE Confidence: 0.3152254

00:37:34.132 --> 00:37:36.480 I think one of a lot of the

NOTE Confidence: 0.3152254

00:37:36.480 --> 00:37:37.520 thought experiments around this,

NOTE Confidence: 0.3152254

00:37:37.520 --> 00:37:38.870 imagine a bunch of patients in

NOTE Confidence: 0.3152254

00:37:38.870 --> 00:37:40.559 a room with the one ventilator,

NOTE Confidence: 0.3152254

00:37:40.560 --> 00:37:42.758 and that's not the situation at all.

NOTE Confidence: 0.3152254

00:37:42.760 --> 00:37:45.000 You have is population of ICU patients.

NOTE Confidence: 0.3152254

00:37:45.000 --> 00:37:46.758 And once they're in the ICU,

NOTE Confidence: 0.3152254

00:37:46.760 --> 00:37:48.944 you can actually run much more

NOTE Confidence: 0.3152254

00:37:48.944 --> 00:37:50.036 complicated prediction models.

NOTE Confidence: 0.3152254

00:37:50.040 --> 00:37:51.636 You have a lot more information.

NOTE Confidence: 0.3152254

00:37:51.640 --> 00:37:53.537 You might be able to know very

NOTE Confidence: 0.3152254

00:37:53.537 --> 00:37:54.678 specifically what their survival's

NOTE Confidence: 0.3152254

00:37:54.678 --> 00:37:56.610 gonna be with a lot more certainty

NOTE Confidence: 0.3152254

00:37:56.610 --> 00:37:58.519 than that person who just showed up.

NOTE Confidence: 0.3152254

00:37:58.520 --> 00:37:58.680 Right.

NOTE Confidence: 0.44416642

00:38:01.120 --> 00:38:02.158 Good. Can't we have someone here?

NOTE Confidence: 0.44416642

00:38:02.160 --> 00:38:04.878 Fight for the sofa. Come on. Anybody.

NOTE Confidence: 0.44416642

00:38:04.880 --> 00:38:07.560 Nobody wants to do that. No expense, OK.

NOTE Confidence: 0.44416642

00:38:07.560 --> 00:38:08.519 The Ben's not going to have time.

NOTE Confidence: 0.27907595

00:38:09.800 --> 00:38:10.400 Yeah, it's gone.

NOTE Confidence: 0.27907595

00:38:10.400 --> 00:38:12.240 Move it on. Right.

NOTE Confidence: 0.27907595

00:38:12.240 --> 00:38:15.076 OK How about how old is somebody?

NOTE Confidence: 0.27907595

00:38:15.080 --> 00:38:17.520 Can we can we use, can we use that?

NOTE Confidence: 0.27907595

00:38:17.520 --> 00:38:18.440 Obviously a fair innings.

NOTE Confidence: 0.27907595

00:38:18.440 --> 00:38:19.960 A ******** fair innings.

NOTE Confidence: 0.27907595

00:38:19.960 --> 00:38:21.100 Prudential Lifespan Equity

NOTE Confidence: 0.27907595

00:38:21.100 --> 00:38:22.520 person would say yes.

NOTE Confidence: 0.27907595

00:38:22.520 --> 00:38:25.648 But we live in America,

NOTE Confidence: 0.27907595

00:38:25.648 --> 00:38:28.960 so it's a little bit more complicated.

NOTE Confidence: 0.27907595

00:38:28.960 --> 00:38:30.660 This was Utah's triage

NOTE Confidence: 0.27907595

00:38:30.660 --> 00:38:32.360 score before the pandemic.

NOTE Confidence: 0.27907595

00:38:32.360 --> 00:38:33.816 They actually were one of the rare

NOTE Confidence: 0.27907595

00:38:33.816 --> 00:38:34.962 states that had like something

NOTE Confidence: 0.27907595

00:38:34.962 --> 00:38:36.396 written down like New York did.

NOTE Confidence: 0.27907595

00:38:36.400 --> 00:38:39.040 New York was just all based on sofa.

NOTE Confidence: 0.27907595

00:38:39.040 --> 00:38:40.720 I don't know if everyone knows that story,

NOTE Confidence: 0.27907595

00:38:40.720 --> 00:38:42.196 but most studies never activating it.

NOTE Confidence: 0.27907595

00:38:42.200 --> 00:38:42.320 But

NOTE Confidence: 0.27438554

00:38:45.560 --> 00:38:47.432 Utah's career school score

NOTE Confidence: 0.27438554

00:38:47.432 --> 00:38:48.836 has estimated survival,

NOTE Confidence: 0.27438554

00:38:48.840 --> 00:38:51.560 so saving lives is protocolized,

NOTE Confidence: 0.27438554

00:38:51.560 --> 00:38:52.872 explicitly right?

NOTE Confidence: 0.27438554

00:38:52.872 --> 00:38:55.840 3 bins and sort of equally as

NOTE Confidence: 0.27438554

00:38:55.840 --> 00:38:58.120 important as how old someone is.

NOTE Confidence: 0.27438554

00:38:58.120 --> 00:39:00.757 So are they. They're less than 30 years old.

NOTE Confidence: 0.27438554

00:39:00.760 --> 00:39:01.880 They get only one point.

NOTE Confidence: 0.27438554

00:39:01.880 --> 00:39:03.398 If they're over the over 60,

NOTE Confidence: 0.27438554

00:39:03.400 --> 00:39:04.668 they get three points.

NOTE Confidence: 0.27438554

00:39:04.668 --> 00:39:07.535 So being over 60 is the same as having

NOTE Confidence: 0.27438554

00:39:07.535 --> 00:39:09.959 less than a 10% chance of survival.

NOTE Confidence: 0.27438554

00:39:09.959 --> 00:39:14.096 So this is a very large, I would argue,

NOTE Confidence: 0.27438554

00:39:14.096 --> 00:39:18.320 fair innings weight in this protocol.

NOTE Confidence: 0.27438554

00:39:18.320 --> 00:39:21.488 Not that this was none of this is

NOTE Confidence: 0.27438554

00:39:21.488 --> 00:39:23.256 explicitly argued from bio in perspective.

NOTE Confidence: 0.27438554

00:39:23.256 --> 00:39:24.969 Like it just sort of somebody writes

NOTE Confidence: 0.27438554

00:39:24.969 --> 00:39:26.529 it down and then you can kind of

NOTE Confidence: 0.27438554

00:39:26.529 --> 00:39:28.611 see which is what I think is so

NOTE Confidence: 0.27438554

00:39:28.611 --> 00:39:29.738 interesting about quantitative biotics.

NOTE Confidence: 0.27438554

00:39:29.738 --> 00:39:31.766 But then this mid category is

NOTE Confidence: 0.27438554

00:39:31.766 --> 00:39:33.506 kind of problematic too, right?

NOTE Confidence: 0.27438554

00:39:33.506 --> 00:39:35.200 It's, it's an ASA score,

NOTE Confidence: 0.27438554

00:39:35.200 --> 00:39:37.150 so it's capturing the patient's

NOTE Confidence: 0.27438554

00:39:37.150 --> 00:39:38.320 chronic disease state,

NOTE Confidence: 0.27438554

00:39:38.320 --> 00:39:40.220 but it's a different access

NOTE Confidence: 0.27438554

00:39:40.220 --> 00:39:41.671 than estimated survival, right.

NOTE Confidence: 0.27438554

00:39:41.671 --> 00:39:44.159 So the idea is that people who are,

NOTE Confidence: 0.27438554

00:39:44.160 --> 00:39:45.915 the problem potentially with this

NOTE Confidence: 0.27438554

00:39:45.915 --> 00:39:48.579 is that people who have disease are

NOTE Confidence: 0.27438554

00:39:48.579 --> 00:39:51.094 somehow less deserving of the resource,

NOTE Confidence: 0.27438554

00:39:51.094 --> 00:39:51.512 right?

NOTE Confidence: 0.27438554

00:39:51.512 --> 00:39:54.840 That's what this is kind of implying,

NOTE Confidence: 0.27438554

00:39:54.840 --> 00:39:57.320 because if these factors matter

NOTE Confidence: 0.27438554

00:39:57.320 --> 00:39:59.720 for their Bible to discharge,

NOTE Confidence: 0.27438554

00:39:59.720 --> 00:40:01.045 they would be incorporated in

NOTE Confidence: 0.27438554

00:40:01.045 --> 00:40:02.351 this bottom column, right?

NOTE Confidence: 0.27438554

00:40:02.351 --> 00:40:04.906 And if these factors are

NOTE Confidence: 0.27438554

00:40:04.906 --> 00:40:06.636 about life expectancy, OK,

NOTE Confidence: 0.27438554

00:40:06.636 --> 00:40:08.204 And then you can sort of see how

NOTE Confidence: 0.27438554

00:40:08.204 --> 00:40:09.719 these would be combined together.

NOTE Confidence: 0.27438554

00:40:09.720 --> 00:40:11.118 It's still a fair innings argument,

NOTE Confidence: 0.27438554

00:40:11.120 --> 00:40:11.448 potentially.

NOTE Confidence: 0.27438554

00:40:11.448 --> 00:40:12.432 Not really, though,

NOTE Confidence: 0.27438554

00:40:12.432 --> 00:40:14.400 because what if you're a child?

NOTE Confidence: 0.27438554

00:40:14.400 --> 00:40:16.719 This is yours.

NOTE Confidence: 0.27438554

00:40:16.720 --> 00:40:19.144 This is a little muddled both

NOTE Confidence: 0.27438554

00:40:19.144 --> 00:40:20.356 bioethically and practically.

NOTE Confidence: 0.27438554

00:40:20.360 --> 00:40:25.170 And so protocols like this cause a

NOTE Confidence: 0.27438554

00:40:25.170 --> 00:40:28.464 lot of action over the summer after

NOTE Confidence: 0.27438554

00:40:28.464 --> 00:40:30.936 our initial waves by the Department

NOTE Confidence: 0.27438554

00:40:30.936 --> 00:40:32.952 of Health and Human Services Office

NOTE Confidence: 0.27438554

00:40:32.952 --> 00:40:34.794 of Civil Rights where they sort

NOTE Confidence: 0.27438554

00:40:34.794 --> 00:40:36.614 of went through all the CSCS and

NOTE Confidence: 0.27438554

00:40:36.670 --> 00:40:38.716 stripped out mention of age or

NOTE Confidence: 0.27438554

00:40:38.716 --> 00:40:40.810 disability in a primary score and

NOTE Confidence: 0.27438554

00:40:40.879 --> 00:40:43.477 even sometimes in the secondary score,

NOTE Confidence: 0.27438554

00:40:43.480 --> 00:40:44.218 a tiebreaker.

NOTE Confidence: 0.27438554

00:40:44.218 --> 00:40:46.801 So This is why that map is

NOTE Confidence: 0.27438554

00:40:46.801 --> 00:40:48.520 all sofa only sofa,

NOTE Confidence: 0.27438554

00:40:48.520 --> 00:40:51.136 because all considerations of age or

NOTE Confidence: 0.27438554

00:40:51.136 --> 00:40:52.880 disability were essentially removed.

NOTE Confidence: 0.27438554

00:40:52.880 --> 00:40:54.744 I think Doug White was able to keep

NOTE Confidence: 0.27438554

00:40:54.744 --> 00:40:56.760 like his tiebreaker in there somehow.

NOTE Confidence: 0.27438554

00:40:56.760 --> 00:40:58.880 But you know, in general,

NOTE Confidence: 0.27438554

00:40:58.880 --> 00:41:00.844 age was dramatically deprioritized

NOTE Confidence: 0.27438554

00:41:00.844 --> 00:41:03.325 from the OR removed from these

NOTE Confidence: 0.27438554

00:41:03.325 --> 00:41:05.000 protocols where using age to

NOTE Confidence: 0.27438554

00:41:05.000 --> 00:41:06.997 decide how you're going to triage

NOTE Confidence: 0.27438554

00:41:07.000 --> 00:41:09.765 was essentially from a regulation

NOTE Confidence: 0.27438554

00:41:09.765 --> 00:41:10.864 standpoint made impossible.

NOTE Confidence: 0.27438554

00:41:10.864 --> 00:41:12.768 So they did this in like 10

NOTE Confidence: 0.27438554

00:41:12.768 --> 00:41:14.360 different States and this is the

NOTE Confidence: 0.27438554

00:41:14.360 --> 00:41:15.880 type of language they would use,

NOTE Confidence: 0.27438554

00:41:15.880 --> 00:41:17.520 move on to life expectancy,

NOTE Confidence: 0.27438554

00:41:17.520 --> 00:41:19.680 categorical exclusion based on age,

NOTE Confidence: 0.27438554

00:41:19.680 --> 00:41:20.876 disability and functional impairment.

NOTE Confidence: 0.27438554

00:41:20.876 --> 00:41:23.024 There's a lot of concern in the

NOTE Confidence: 0.27438554

00:41:23.024 --> 00:41:24.549 disability community that there would

NOTE Confidence: 0.27438554

00:41:24.549 --> 00:41:26.312 be explicit discrimination against

NOTE Confidence: 0.27438554

00:41:26.312 --> 00:41:28.720 patients with chronic physical

NOTE Confidence: 0.27438554

00:41:28.720 --> 00:41:30.760 or neurological disabilities.

NOTE Confidence: 0.27438554

00:41:30.760 --> 00:41:32.368 Impairment and like would take

NOTE Confidence: 0.27438554

00:41:32.368 --> 00:41:33.296 ventilators away from people

NOTE Confidence: 0.27438554

00:41:33.296 --> 00:41:34.759 who are chronically ventilated,

NOTE Confidence: 0.27438554

00:41:34.760 --> 00:41:36.720 for example,

NOTE Confidence: 0.27438554

00:41:36.720 --> 00:41:38.598 and make sure that people with

NOTE Confidence: 0.27438554

00:41:38.598 --> 00:41:39.850 disabilities are valued based

NOTE Confidence: 0.27438554

00:41:39.903 --> 00:41:41.518 on their actual mortality risk,

NOTE Confidence: 0.27438554

00:41:41.520 --> 00:41:44.600 not the value of their life or their,

NOTE Confidence: 0.27438554

00:41:44.600 --> 00:41:46.316 you know, sort of qualities remaining.

NOTE Confidence: 0.27438554

00:41:46.320 --> 00:41:50.320 Right. And so apparently they changed.

NOTE Confidence: 0.27438554

00:41:50.320 --> 00:41:52.080 Utah, changed their plan.

NOTE Confidence: 0.27438554

00:41:52.080 --> 00:41:53.074 But when I clicked on the link,

NOTE Confidence: 0.42489943

00:41:53.080 --> 00:41:54.452 it's broken. I did a lot of

NOTE Confidence: 0.42489943

00:41:54.452 --> 00:41:55.296 searching last night. I'm like,

NOTE Confidence: 0.42489943

00:41:55.296 --> 00:41:56.192 oh, what did they change it to?

NOTE Confidence: 0.42489943

00:41:56.200 --> 00:41:58.636 But it's probably just this bottom,

NOTE Confidence: 0.42489943

00:42:00.920 --> 00:42:02.258 the bottom one. Now this is

NOTE Confidence: 0.42489943

00:42:02.258 --> 00:42:03.600 kind of like well payment,

NOTE Confidence: 0.42489943

00:42:03.600 --> 00:42:04.512 so we're going to have to

NOTE Confidence: 0.42489943

00:42:04.512 --> 00:42:05.120 really worry about it.

NOTE Confidence: 0.42489943

00:42:05.120 --> 00:42:07.766 But I assume state of Utah is

NOTE Confidence: 0.42489943

00:42:07.766 --> 00:42:09.515 just about estimated survival

NOTE Confidence: 0.42489943

00:42:09.515 --> 00:42:12.165 and throwing all these these

NOTE Confidence: 0.42489943

00:42:12.165 --> 00:42:15.840 other considerations out. So I

NOTE Confidence: 0.6721504

00:42:15.840 --> 00:42:16.360 want to talk about

NOTE Confidence: 0.6721504

00:42:16.360 --> 00:42:18.110 the two potential ethical justifications

NOTE Confidence: 0.6721504

00:42:18.110 --> 00:42:20.460 for using age, and this is a good

NOTE Confidence: 0.6721504

00:42:20.460 --> 00:42:21.760 time to have some discussion.

NOTE Confidence: 0.6721504

00:42:21.760 --> 00:42:24.224 The first idea is that the value

NOTE Confidence: 0.6721504

00:42:24.224 --> 00:42:26.080 of younger lives is higher.

NOTE Confidence: 0.6721504

00:42:26.080 --> 00:42:28.608 This of course has been sort of explicitly

NOTE Confidence: 0.6721504

00:42:28.608 --> 00:42:30.530 rejected by the previous administration's

NOTE Confidence: 0.6721504

00:42:30.530 --> 00:42:32.680 Health and Human Services department.

NOTE Confidence: 0.6721504

00:42:32.680 --> 00:42:34.678 But, you know, this is justified.

NOTE Confidence: 0.6721504

00:42:34.680 --> 00:42:36.969 And this fits into the idea that

NOTE Confidence: 0.6721504

00:42:36.969 --> 00:42:39.296 younger lives in general, not always,

NOTE Confidence: 0.6721504

00:42:39.296 --> 00:42:42.095 but have more like years to gain, right?

NOTE Confidence: 0.6721504

00:42:42.095 --> 00:42:43.600 If you're like like a previous example,

NOTE Confidence: 0.6721504

00:42:43.600 --> 00:42:45.080 if you're 40 years old,

NOTE Confidence: 0.6721504

00:42:45.080 --> 00:42:47.096 even if you have a higher

NOTE Confidence: 0.6721504

00:42:47.096 --> 00:42:48.886 probability of short term mortality,

NOTE Confidence: 0.6721504

00:42:48.886 --> 00:42:51.430 you're much more likely to gain

NOTE Confidence: 0.6721504

00:42:51.430 --> 00:42:52.980 more life years with treatment

NOTE Confidence: 0.6721504

00:42:52.980 --> 00:42:54.840 than some others in their 80s.

NOTE Confidence: 0.6721504

00:42:54.840 --> 00:42:55.760 And then the second idea,

NOTE Confidence: 0.6721504

00:42:55.760 --> 00:42:57.028 as we discussed 4,

NOTE Confidence: 0.6721504

00:42:57.028 --> 00:42:58.930 is that younger lives really are

NOTE Confidence: 0.6721504

00:42:58.996 --> 00:43:01.082 higher in terms of that they haven't

NOTE Confidence: 0.6721504

00:43:01.082 --> 00:43:03.599 got to play in their 90s at baseball.

NOTE Confidence: 0.6721504

00:43:03.600 --> 00:43:07.640 So we owe them because they're worse off.

NOTE Confidence: 0.6721504

00:43:07.640 --> 00:43:09.840 But there's another reason to

NOTE Confidence: 0.6721504

00:43:09.840 --> 00:43:11.728 use age in a triage war.

NOTE Confidence: 0.6721504

00:43:11.728 --> 00:43:13.770 And that age is a strong independent

NOTE Confidence: 0.6721504

00:43:13.770 --> 00:43:16.080 predictor of short term survival.

NOTE Confidence: 0.6721504

00:43:16.080 --> 00:43:17.970 Who was most likely to die

NOTE Confidence: 0.6721504

00:43:17.970 --> 00:43:19.452 from COVID the elderly?

NOTE Confidence: 0.6721504

00:43:19.452 --> 00:43:22.434 Who did we allocate COVID vaccines to?

NOTE Confidence: 0.6721504

00:43:22.440 --> 00:43:25.144 1st the elderly?

NOTE Confidence: 0.6721504

00:43:25.144 --> 00:43:28.168 We used age because it was a

NOTE Confidence: 0.6721504

00:43:28.168 --> 00:43:30.760 tremendous predictor of benefit

NOTE Confidence: 0.6721504

00:43:30.760 --> 00:43:32.920 from COVID-19 vaccination.

NOTE Confidence: 0.6721504

00:43:32.920 --> 00:43:35.008 The converse is true here that

NOTE Confidence: 0.6721504

00:43:35.008 --> 00:43:37.672 younger patients are much more likely

NOTE Confidence: 0.6721504

00:43:37.672 --> 00:43:40.593 to benefit to survive from life

NOTE Confidence: 0.6721504

00:43:40.593 --> 00:43:43.038 support if they develop respiratory

NOTE Confidence: 0.6721504

00:43:43.038 --> 00:43:45.250 failure or chronic respiratory

NOTE Confidence: 0.6721504

00:43:45.250 --> 00:43:47.434 failure or chronic failure.

NOTE Confidence: 0.6721504

00:43:47.440 --> 00:43:49.216 So you need to use age if you

NOTE Confidence: 0.6721504

00:43:49.216 --> 00:43:50.920 want to save the most lives.

NOTE Confidence: 0.6721504

00:43:50.920 --> 00:43:53.236 We don't have an alternative number.

NOTE Confidence: 0.6721504

00:43:53.240 --> 00:43:54.196 That's the practical thing

NOTE Confidence: 0.6721504

00:43:54.196 --> 00:43:56.080 that we can do on the bedside.

NOTE Confidence: 0.6721504

00:43:56.080 --> 00:43:58.384 And this is some data that

NOTE Confidence: 0.6721504

00:43:58.384 --> 00:43:59.920 we have under review.

NOTE Confidence: 0.6721504

00:43:59.920 --> 00:44:02.560 We we presented ATS,

NOTE Confidence: 0.6721504

00:44:02.560 --> 00:44:03.952 the American Thrust Society

NOTE Confidence: 0.6721504

00:44:03.952 --> 00:44:04.996 conference last spring,

NOTE Confidence: 0.6721504

00:44:05.000 --> 00:44:06.836 so I'll walk you through it.

NOTE Confidence: 0.6721504

00:44:06.840 --> 00:44:10.092 The X axis is how old the person went and

NOTE Confidence: 0.6721504

00:44:10.092 --> 00:44:12.297 this is the population of like 90% COVID,

NOTE Confidence: 0.6721504

00:44:12.297 --> 00:44:12.714 10%.

NOTE Confidence: 0.6721504

00:44:12.714 --> 00:44:15.462 Others supposed to simulate a pandemic surge.

NOTE Confidence: 0.6721504

00:44:15.462 --> 00:44:17.779 And then the black bars are what

NOTE Confidence: 0.6721504

00:44:17.779 --> 00:44:19.398 percentage of them actually died.

NOTE Confidence: 0.6721504

00:44:19.400 --> 00:44:20.960 So as you can see yes,

NOTE Confidence: 0.6721504

00:44:20.960 --> 00:44:22.079 people get older.

NOTE Confidence: 0.6721504

00:44:22.079 --> 00:44:24.729 The probability of death goes up the

NOTE Confidence: 0.6721504

00:44:24.729 --> 00:44:27.183 the red bars are their predicted

NOTE Confidence: 0.6721504

00:44:27.183 --> 00:44:29.478 mortality by sofa score of all.

NOTE Confidence: 0.6721504

00:44:29.480 --> 00:44:31.046 And remember we've defined this as

NOTE Confidence: 0.6721504

00:44:31.046 --> 00:44:32.640 a crisis standard care population.

NOTE Confidence: 0.6721504

00:44:32.640 --> 00:44:34.332 So they're all quite they're pretty

NOTE Confidence: 0.6721504

00:44:34.332 --> 00:44:36.296 sick and they have higher sofa scores

NOTE Confidence: 0.6721504

00:44:36.296 --> 00:44:38.796 and it just all is pretty much the same.

NOTE Confidence: 0.6721504

00:44:38.800 --> 00:44:40.960 So the red bars are all the same.

NOTE Confidence: 0.6721504

00:44:40.960 --> 00:44:43.408 But if you make a new model that

NOTE Confidence: 0.6721504

00:44:43.408 --> 00:44:44.879 incorporates both sofa and age,

NOTE Confidence: 0.6721504

00:44:44.880 --> 00:44:45.924 you're much more accurate.

NOTE Confidence: 0.6721504

00:44:45.924 --> 00:44:46.707 You're actually predicting

NOTE Confidence: 0.6721504

00:44:46.707 --> 00:44:47.840 who's going to survive.

NOTE Confidence: 0.6721504

00:44:47.840 --> 00:44:48.920 And any critical care physician

NOTE Confidence: 0.6721504

00:44:48.920 --> 00:44:50.000 in the room would say,

NOTE Confidence: 0.6721504

00:44:50.000 --> 00:44:51.729 I'd much rather have a patient who's

NOTE Confidence: 0.6721504

00:44:51.729 --> 00:44:53.631 40 with a Silva of eight than an

NOTE Confidence: 0.6721504

00:44:53.631 --> 00:44:55.599 80 year old with a Silva of three.

NOTE Confidence: 0.6721504

00:44:55.600 --> 00:44:56.680 Right.

NOTE Confidence: 0.6721504

00:44:56.680 --> 00:44:59.745 That age tells you so much

NOTE Confidence: 0.6721504

00:44:59.745 --> 00:45:01.333 clinically about someone's ability

NOTE Confidence: 0.6721504

00:45:01.333 --> 00:45:03.559 to survive critical fullness.

NOTE Confidence: 0.6721504

00:45:03.560 --> 00:45:04.252 This is nothing new.

NOTE Confidence: 0.6721504

00:45:04.252 --> 00:45:05.559 It's why I'm trying to get this

NOTE Confidence: 0.6721504

00:45:05.559 --> 00:45:06.684 published cause the critical care

NOTE Confidence: 0.6721504

00:45:06.684 --> 00:45:07.920 journal's like this is obvious.

NOTE Confidence: 0.6721504

00:45:07.920 --> 00:45:09.740 This is why age is in Apache

NOTE Confidence: 0.6721504

00:45:09.740 --> 00:45:10.520 and all those

NOTE Confidence: 0.27974278

00:45:10.582 --> 00:45:12.902 other scores and then you know like what's

NOTE Confidence: 0.27974278

00:45:12.902 --> 00:45:14.519 all this ethics stuff in the discussion.

NOTE Confidence: 0.27974278

00:45:14.520 --> 00:45:15.840 But we'll we'll get there.

NOTE Confidence: 0.27974278

00:45:15.840 --> 00:45:18.280 We'll get there.

NOTE Confidence: 0.27974278

00:45:18.280 --> 00:45:19.600 Why are you talking about law?

NOTE Confidence: 0.27974278

00:45:19.600 --> 00:45:21.240 Like what's what is happening

NOTE Confidence: 0.27974278

00:45:21.240 --> 00:45:22.552 in this paper Bud?

NOTE Confidence: 0.27974278

00:45:22.560 --> 00:45:24.837 I think you know it sort of jumps off

NOTE Confidence: 0.27974278

00:45:24.840 --> 00:45:27.400 the the page to me that you know if

NOTE Confidence: 0.27974278

00:45:27.400 --> 00:45:29.600 your if your goal is to save the most lives,

NOTE Confidence: 0.27974278

00:45:29.600 --> 00:45:30.600 you have to use age,

NOTE Confidence: 0.27974278

00:45:30.600 --> 00:45:34.360 just like we use age to distribute vaccines.

NOTE Confidence: 0.27974278

00:45:34.360 --> 00:45:37.120 So I think there's a robust

NOTE Confidence: 0.27974278

00:45:37.120 --> 00:45:38.040 ethical justification.

NOTE Confidence: 0.27974278

00:45:38.040 --> 00:45:39.500 And even Dan Salmaisy who

NOTE Confidence: 0.27974278

00:45:39.500 --> 00:45:40.960 used to be in Chicago,

NOTE Confidence: 0.27974278

00:45:40.960 --> 00:45:42.664 who's really against fair

NOTE Confidence: 0.27974278

00:45:42.664 --> 00:45:44.794 innings and saving life years,

NOTE Confidence: 0.27974278

00:45:44.800 --> 00:45:45.920 concedes his first point,

NOTE Confidence: 0.27974278

00:45:45.920 --> 00:45:47.320 that using age as one,

NOTE Confidence: 0.27974278

00:45:47.320 --> 00:45:49.196 as one variable among many to save

NOTE Confidence: 0.27974278

00:45:49.196 --> 00:45:51.320 lives as a robust justification.

NOTE Confidence: 0.27974278

00:45:51.320 --> 00:45:52.445 If you remove age from

NOTE Confidence: 0.27974278

00:45:52.445 --> 00:45:53.120 life support allocation,

NOTE Confidence: 0.27974278

00:45:53.120 --> 00:45:56.080 I would say that's like anti young ages.

NOTE Confidence: 0.27974278

00:45:56.080 --> 00:45:57.720 I'm almost like you're penalizing,

NOTE Confidence: 0.27974278

00:45:57.720 --> 00:45:59.729 you're you're saying the lives of younger

NOTE Confidence: 0.27974278

00:45:59.729 --> 00:46:02.000 people are less valuable than older people.

NOTE Confidence: 0.27974278

00:46:02.000 --> 00:46:03.548 I would argue that's what our

NOTE Confidence: 0.27974278

00:46:03.548 --> 00:46:04.760 current trans protocols would do.

NOTE Confidence: 0.27974278

00:46:04.760 --> 00:46:08.112 And then finally, you know,

NOTE Confidence: 0.27974278

00:46:08.112 --> 00:46:09.736 all these ideas, fair things,

NOTE Confidence: 0.27974278

00:46:09.736 --> 00:46:10.472 parental lifespan,

NOTE Confidence: 0.27974278

00:46:10.472 --> 00:46:12.680 equity saving lives have broad appeal.

NOTE Confidence: 0.27974278

00:46:12.680 --> 00:46:14.493 And I would argue that CSCS ignoring

NOTE Confidence: 0.27974278

00:46:14.493 --> 00:46:15.920 these ideas are problematic.

NOTE Confidence: 0.27974278

00:46:15.920 --> 00:46:17.894 And the nice thing is if you

NOTE Confidence: 0.27974278

00:46:17.894 --> 00:46:19.799 just use it to save lives,

NOTE Confidence: 0.27974278

00:46:19.800 --> 00:46:20.592 you get, you know,

NOTE Confidence: 0.27974278

00:46:20.592 --> 00:46:21.780 kind of knock on benefits across

NOTE Confidence: 0.27974278

00:46:21.825 --> 00:46:23.213 these other principles, right?

NOTE Confidence: 0.27974278

00:46:23.213 --> 00:46:25.678 They tend to go together.

NOTE Confidence: 0.27974278

00:46:25.680 --> 00:46:27.871 So even though your objective with the

NOTE Confidence: 0.27974278

00:46:27.871 --> 00:46:30.157 protocol could be to save the most lives,

NOTE Confidence: 0.27974278

00:46:30.160 --> 00:46:31.576 there will be sort of secondary

NOTE Confidence: 0.27974278

00:46:31.576 --> 00:46:32.920 benefits for the other balance.

NOTE Confidence: 0.39421406

00:46:35.400 --> 00:46:36.600 So that's age.

NOTE Confidence: 0.39421406

00:46:36.600 --> 00:46:39.000 I'd like to hear people's thoughts

NOTE Confidence: 0.39421406

00:46:39.000 --> 00:46:41.599 and comments about using agency.

NOTE Confidence: 0.39421406

00:46:41.600 --> 00:46:44.525 S ES Ben. Oh yeah. Sorry.

NOTE Confidence: 0.39421406

00:46:44.525 --> 00:46:45.400 Wait probably wait for that.

NOTE Confidence: 0.39396146

00:46:47.960 --> 00:46:48.640 So, so I I

NOTE Confidence: 0.39396146

00:46:49.200 --> 00:46:50.400 strongly agree with the

NOTE Confidence: 0.39396146

00:46:51.520 --> 00:46:55.720 argument for using a based on

NOTE Confidence: 0.39396146

00:46:55.720 --> 00:46:59.080 predictive value when when we turned

NOTE Confidence: 0.39396146

00:46:59.080 --> 00:47:02.960 away from sofa aid was was definitely,

NOTE Confidence: 0.39396146

00:47:03.440 --> 00:47:04.610 you know the the comparator

NOTE Confidence: 0.39396146

00:47:04.610 --> 00:47:07.640 we were looking at was more

NOTE Confidence: 0.39396146

00:47:07.640 --> 00:47:10.560 accurate in in our community.

NOTE Confidence: 0.39396146

00:47:10.560 --> 00:47:13.640 The white patients were

NOTE Confidence: 0.39396146

00:47:13.640 --> 00:47:14.840 just fortunately older than

NOTE Confidence: 0.25442088

00:47:15.760 --> 00:47:18.240 David Doss. Yeah same thing.

NOTE Confidence: 0.25442088

00:47:18.240 --> 00:47:20.360 So it would have been you

NOTE Confidence: 0.25442088

00:47:20.360 --> 00:47:21.960 know the perspective of

NOTE Confidence: 0.25442088

00:47:22.160 --> 00:47:23.140 racial equity would have

NOTE Confidence: 0.25442088

00:47:23.140 --> 00:47:24.120 been better than sofa.

NOTE Confidence: 0.25442088

00:47:26.840 --> 00:47:29.066 Yeah and so it's and and

NOTE Confidence: 0.25442088

00:47:29.066 --> 00:47:31.280 also it was much easier.

NOTE Confidence: 0.25442088

00:47:31.280 --> 00:47:33.345 We didn't we couldn't put

NOTE Confidence: 0.25442088

00:47:33.345 --> 00:47:34.997 together triage things just

NOTE Confidence: 0.25442088

00:47:35.000 --> 00:47:36.490 from a feasibility perspective.

NOTE Confidence: 0.25442088

00:47:36.490 --> 00:47:38.520 Age would have been needed to be

NOTE Confidence: 0.441581434285714

00:47:38.960 --> 00:47:41.336 right and age is of course not chronological

NOTE Confidence: 0.441581434285714

00:47:41.336 --> 00:47:43.678 age is surrogate for biological age.

NOTE Confidence: 0.441581434285714

00:47:43.680 --> 00:47:45.600 There's like they're you know it's

NOTE Confidence: 0.441581434285714

00:47:45.600 --> 00:47:47.146 imperfect right. But it's something

NOTE Confidence: 0.441581434285714

00:47:47.146 --> 00:47:48.654 that's verifiable and easy. Yeah.

NOTE Confidence: 0.441581434285714

00:47:48.654 --> 00:47:50.712 I was hoping that age plus sofa

NOTE Confidence: 0.441581434285714

00:47:50.712 --> 00:47:52.570 score would debias it. It doesn't.

NOTE Confidence: 0.441581434285714

00:47:52.570 --> 00:47:54.400 You have to do something else.

NOTE Confidence: 0.441581434285714

00:47:54.400 --> 00:47:56.240 I'll show you later on we get there.

NOTE Confidence: 0.441581434285714

00:47:56.240 --> 00:47:59.960 But so there's still a sofa.

NOTE Confidence: 0.441581434285714

00:47:59.960 --> 00:48:02.096 Score's bias is so severe even if you

NOTE Confidence: 0.441581434285714

00:48:02.096 --> 00:48:03.928 account for the fact that black and

NOTE Confidence: 0.441581434285714

00:48:03.928 --> 00:48:05.512 Hispanic patients are younger and and

NOTE Confidence: 0.441581434285714

00:48:05.512 --> 00:48:07.336 in the in the predictive score you

NOTE Confidence: 0.441581434285714

00:48:07.336 --> 00:48:09.319 still have to over with the disparity.

NOTE Confidence: 0.441581434285714

00:48:09.320 --> 00:48:11.216 So that's but I think as we said

NOTE Confidence: 0.441581434285714

00:48:11.216 --> 00:48:13.017 the most logical thing to do

NOTE Confidence: 0.441581434285714

00:48:13.017 --> 00:48:14.592 is throw soap out completely.

NOTE Confidence: 0.441581434285714

00:48:14.600 --> 00:48:16.160 You can build a new score.

NOTE Confidence: 0.441581434285714

00:48:16.160 --> 00:48:17.975 We're trying out SEPA severity

NOTE Confidence: 0.441581434285714

00:48:17.975 --> 00:48:20.173 illness plus age 'cause we don't

NOTE Confidence: 0.441581434285714

00:48:20.173 --> 00:48:22.399 want to start with age that like

NOTE Confidence: 0.441581434285714

00:48:22.399 --> 00:48:24.176 trigger the anti ageist people like.

NOTE Confidence: 0.441581434285714

00:48:24.176 --> 00:48:25.596 So that's what we're starting.

NOTE Confidence: 0.31783116

00:48:28.280 --> 00:48:29.615 One other point,

NOTE Confidence: 0.31783116

00:48:29.615 --> 00:48:32.285 even with one national triage that I'm,

NOTE Confidence: 0.31783116

00:48:32.285 --> 00:48:33.275 I'm aware of that we've done

NOTE Confidence: 0.31783116

00:48:33.280 --> 00:48:35.746 recently with vaccines,

NOTE Confidence: 0.31783116

00:48:35.746 --> 00:48:39.373 age was universally accepted, right?

NOTE Confidence: 0.31783116

00:48:39.373 --> 00:48:42.548 It's bizarre to me that it was so

NOTE Confidence: 0.31783116

00:48:42.548 --> 00:48:44.060 widely accepted and uncontroversial

NOTE Confidence: 0.31783116

00:48:44.130 --> 00:48:45.965 in the allocation of vaccines

NOTE Confidence: 0.31783116

00:48:45.965 --> 00:48:48.080 that which has been so,

NOTE Confidence: 0.31783116

00:48:48.080 --> 00:48:51.560 so controversial in ICU allocation.

NOTE Confidence: 0.39907873

00:48:51.760 --> 00:48:52.936 Yeah, I think part of it is that

NOTE Confidence: 0.39907873

00:48:52.936 --> 00:48:53.963 if you don't allocate someone

NOTE Confidence: 0.39907873

00:48:53.963 --> 00:48:55.118 life support and needs it,

NOTE Confidence: 0.39907873

00:48:55.120 --> 00:48:57.240 they just will die immediately.

NOTE Confidence: 0.39907873

00:48:57.240 --> 00:48:59.400 Whereas young people, you know,

NOTE Confidence: 0.39907873

00:48:59.400 --> 00:49:00.720 most of them just were able to wait.

NOTE Confidence: 0.39907873

00:49:00.720 --> 00:49:02.155 You guys can wait and get their

NOTE Confidence: 0.39907873

00:49:02.155 --> 00:49:03.505 vaccine later on and they survive

NOTE Confidence: 0.39907873

00:49:03.505 --> 00:49:05.331 except for the ones who didn't, right.

NOTE Confidence: 0.39907873

00:49:05.331 --> 00:49:08.378 And and I think there were you

NOTE Confidence: 0.39907873

00:49:08.378 --> 00:49:10.406 know there was there was trade-offs

NOTE Confidence: 0.39907873

00:49:10.406 --> 00:49:12.720 there with that decision of 65 plus,

NOTE Confidence: 0.39907873

00:49:12.720 --> 00:49:14.876 right for for vaccines obviously I think

NOTE Confidence: 0.39907873

00:49:14.876 --> 00:49:16.660 they were justified because we saved

NOTE Confidence: 0.39907873

00:49:16.660 --> 00:49:18.529 a lot more lives by vaccinating the

NOTE Confidence: 0.39907873

00:49:18.587 --> 00:49:20.435 elderly people than people under 65.

NOTE Confidence: 0.39907873

00:49:20.440 --> 00:49:22.162 But make no mistake that was a

NOTE Confidence: 0.39907873

00:49:22.162 --> 00:49:23.981 choice and there were a lot of

NOTE Confidence: 0.39907873

00:49:23.981 --> 00:49:25.517 people who were sixty with diabetes

NOTE Confidence: 0.39907873

00:49:25.578 --> 00:49:28.375 would Incarnate settings who died of

NOTE Confidence: 0.39907873

00:49:28.375 --> 00:49:31.720 COVID and waited for their vaccine.

NOTE Confidence: 0.39907873

00:49:31.720 --> 00:49:35.128 So any other comments on age just

NOTE Confidence: 0.39907873

00:49:35.128 --> 00:49:37.570 just I I haven't not in the past I

NOTE Confidence: 0.39907873

00:49:37.570 --> 00:49:39.565 might not see you next could you just

NOTE Confidence: 0.39907873

00:49:39.565 --> 00:49:41.983 clarify for us now so so you you make

NOTE Confidence: 0.39907873

00:49:41.983 --> 00:49:43.959 a good argument for using age and

NOTE Confidence: 0.39907873

00:49:43.959 --> 00:49:46.470 I I I agree with that too but can

NOTE Confidence: 0.39907873

00:49:46.549 --> 00:49:49.034 you just clarify for us where the

NOTE Confidence: 0.39907873

00:49:49.040 --> 00:49:51.038 federal government stands on this now.

NOTE Confidence: 0.39907873

00:49:51.040 --> 00:49:53.360 Well, it's a new administration,

NOTE Confidence: 0.39907873

00:49:53.360 --> 00:49:55.652 presumably there's been some shake up

NOTE Confidence: 0.39907873

00:49:55.652 --> 00:49:57.822 this hasn't this actually never went

NOTE Confidence: 0.39907873

00:49:57.822 --> 00:49:59.124 to court And then Scoben's explained

NOTE Confidence: 0.39907873

00:49:59.124 --> 00:50:00.733 this to me like 5 times with the law

NOTE Confidence: 0.39907873

00:50:00.733 --> 00:50:02.000 of stuff and then it was screwed up.

NOTE Confidence: 0.39907873

00:50:02.000 --> 00:50:03.560 But it's never been litigated.

NOTE Confidence: 0.39907873

00:50:03.560 --> 00:50:05.320 So it's not like it's gone to court,

NOTE Confidence: 0.39907873

00:50:05.320 --> 00:50:07.324 federal court and they've said the

NOTE Confidence: 0.39907873

00:50:07.324 --> 00:50:09.916 using age in the CSC violates the age,

NOTE Confidence: 0.39907873

00:50:09.920 --> 00:50:12.020 just anti Age Discrimination Act

NOTE Confidence: 0.39907873

00:50:12.020 --> 00:50:13.859 of 1976 or whatever.

NOTE Confidence: 0.39907873

00:50:13.859 --> 00:50:16.697 And then also like from a

NOTE Confidence: 0.39907873

00:50:16.697 --> 00:50:18.240 constitutional perspective,

NOTE Confidence: 0.39907873

00:50:18.240 --> 00:50:20.248 age is not a protected class in the

NOTE Confidence: 0.39907873

00:50:20.248 --> 00:50:22.236 same way as race and ethnicity is.

NOTE Confidence: 0.39907873

00:50:22.240 --> 00:50:23.251 So a, a,

NOTE Confidence: 0.39907873

00:50:23.251 --> 00:50:25.273 a state could presumably pass a

NOTE Confidence: 0.39907873

00:50:25.273 --> 00:50:27.991 law that says we care about saving

NOTE Confidence: 0.39907873

00:50:27.991 --> 00:50:30.680 life years and that would hold up,

NOTE Confidence: 0.39907873

00:50:30.680 --> 00:50:32.031 although none of this he has like

NOTE Confidence: 0.39907873

00:50:32.031 --> 00:50:33.590 a huge law review article on that

NOTE Confidence: 0.39907873

00:50:33.590 --> 00:50:35.055 can't make sense on this. So.

NOTE Confidence: 0.39907873

00:50:35.055 --> 00:50:37.120 So yeah, that's where it is now.

NOTE Confidence: 0.39907873

00:50:37.120 --> 00:50:38.280 I I don't think.

NOTE Confidence: 0.39907873

00:50:38.280 --> 00:50:40.160 I think the first step from a

NOTE Confidence: 0.39907873

00:50:40.160 --> 00:50:41.780 research perspective and bioethical

NOTE Confidence: 0.39907873

00:50:41.780 --> 00:50:44.520 perspective is just to kind of like

NOTE Confidence: 0.39907873

00:50:44.520 --> 00:50:46.278 hammer this home in the literature,

NOTE Confidence: 0.39907873

00:50:46.280 --> 00:50:48.222 right, And just show like, hey,

NOTE Confidence: 0.39907873

00:50:48.222 --> 00:50:49.776 this is if you're making a triage

NOTE Confidence: 0.39907873

00:50:49.776 --> 00:50:51.000 for how old someone is,

NOTE Confidence: 0.39907873

00:50:51.000 --> 00:50:52.392 is critically important.

NOTE Confidence: 0.39907873

00:50:52.392 --> 00:50:55.640 And hopefully the weight of that evidence

NOTE Confidence: 0.39907873

00:50:55.718 --> 00:50:56.960 will effect policy down the line.

NOTE Confidence: 0.39907873

00:50:56.960 --> 00:50:59.109 But we're really far away from having

NOTE Confidence: 0.39907873

00:50:59.109 --> 00:51:00.679 sensible CSC policy these days.

NOTE Confidence: 0.39907873

00:51:00.680 --> 00:51:02.160 And just a quick note,

NOTE Confidence: 0.39907873

00:51:02.160 --> 00:51:02.916 because I think a lot of people

NOTE Confidence: 0.39907873

00:51:02.916 --> 00:51:03.400 in the room know,

NOTE Confidence: 0.39907873

00:51:03.400 --> 00:51:04.660 certainly other people who are

NOTE Confidence: 0.39907873

00:51:04.660 --> 00:51:05.920 working on our policy here

NOTE Confidence: 0.39907873

00:51:05.920 --> 00:51:07.280 because in the pediatric world,

NOTE Confidence: 0.39907873

00:51:07.280 --> 00:51:09.835 the sofa isn't really for the kids.

NOTE Confidence: 0.39907873

00:51:09.840 --> 00:51:11.380 So we used a different store called

NOTE Confidence: 0.39907873

00:51:11.380 --> 00:51:12.840 the PLA Two and for newborns

NOTE Confidence: 0.39907873

00:51:12.840 --> 00:51:13.800 there was nothing available.

NOTE Confidence: 0.39907873

00:51:13.800 --> 00:51:15.840 So we actually sort of jury rigged

NOTE Confidence: 0.39907873

00:51:15.840 --> 00:51:17.080 something for the purposes of our.

NOTE Confidence: 0.39907873

00:51:17.080 --> 00:51:20.960 Yeah, our here. Yeah, You know, they don't.

NOTE Confidence: 0.39907873

00:51:20.960 --> 00:51:21.760 So there we go first.

NOTE Confidence: 0.29941788

00:51:21.760 --> 00:51:24.920 Yeah, favouring the young person,

NOTE Confidence: 0.29941788

00:51:24.920 --> 00:51:26.570 the old becomes hugely important

NOTE Confidence: 0.29941788

00:51:26.570 --> 00:51:28.849 when for example here in Yale it's

NOTE Confidence: 0.29941788

00:51:28.849 --> 00:51:30.367 essentially the same ventilators that

NOTE Confidence: 0.29941788

00:51:30.367 --> 00:51:32.194 we use for the 80 year olds and two

NOTE Confidence: 0.29941788

00:51:32.200 --> 00:51:34.440 year olds and the 23 week preterm baby.

NOTE Confidence: 0.29941788

00:51:34.440 --> 00:51:36.480 Now that may be changed by the time the next.

NOTE Confidence: 0.29941788

00:51:36.480 --> 00:51:37.360 Sure. Yeah it's a little,

NOTE Confidence: 0.29941788

00:51:37.360 --> 00:51:39.352 I guess it's a little U-shaped

NOTE Confidence: 0.29941788

00:51:39.352 --> 00:51:41.752 in the sense that a 23 week old,

NOTE Confidence: 0.29941788

00:51:41.752 --> 00:51:43.715 you know may may have a you

NOTE Confidence: 0.29941788

00:51:43.715 --> 00:51:45.375 know 50% mortality or something.

NOTE Confidence: 0.29941788

00:51:45.375 --> 00:51:47.930 So that that that those types of

NOTE Confidence: 0.29941788

00:51:48.000 --> 00:51:50.325 considerations would happen and obviously

NOTE Confidence: 0.29941788

00:51:50.325 --> 00:51:53.136 with with COVID since infecting you

NOTE Confidence: 0.29941788

00:51:53.136 --> 00:51:56.455 know 99% adults then in terms of

NOTE Confidence: 0.29941788

00:51:56.455 --> 00:51:58.355 causing critical illness anyway,

NOTE Confidence: 0.29941788

00:51:58.360 --> 00:51:59.701 we kind of got a free pass on that

NOTE Confidence: 0.29941788

00:51:59.701 --> 00:52:00.850 but that's another issue with the

NOTE Confidence: 0.29941788

00:52:00.850 --> 00:52:02.479 age that we have to deal with right.

NOTE Confidence: 0.29941788

00:52:02.480 --> 00:52:03.400 Thanks. Here's another question.

NOTE Confidence: 0.29667825

00:52:05.960 --> 00:52:07.616 So I'm a first year my student never

NOTE Confidence: 0.29667825

00:52:07.616 --> 00:52:09.598 heard of sofa before this but I would just

NOTE Confidence: 0.29667825

00:52:09.920 --> 00:52:11.000 hopefully you'll never hear again.

NOTE Confidence: 0.29667825

00:52:11.000 --> 00:52:11.876 No, it's going to be around.

NOTE Confidence: 0.29667825

00:52:11.880 --> 00:52:13.356 It's been around for 30 years.

NOTE Confidence: 0.29667825

00:52:13.360 --> 00:52:15.439 People like people would go stick or sofa for

NOTE Confidence: 0.25546062

00:52:16.240 --> 00:52:16.879 This is why?

NOTE Confidence: 0.25546062

00:52:24.160 --> 00:52:25.838 Well this is that's a great question.

NOTE Confidence: 0.25546062

00:52:25.840 --> 00:52:28.080 This is a cohort defined

NOTE Confidence: 0.25546062

00:52:28.080 --> 00:52:29.872 as critically ill people.

NOTE Confidence: 0.25546062

00:52:29.880 --> 00:52:32.060 So everyone here needed a

NOTE Confidence: 0.25546062

00:52:32.060 --> 00:52:33.804 ventilator or needed basolactin

NOTE Confidence: 0.25546062

00:52:33.804 --> 00:52:35.639 medications to treat their shock.

NOTE Confidence: 0.25546062

00:52:35.640 --> 00:52:37.220 So the by construction

NOTE Confidence: 0.25546062

00:52:37.220 --> 00:52:39.195 this is a sick population,

NOTE Confidence: 0.25546062

00:52:39.200 --> 00:52:40.825 the population that you would

NOTE Confidence: 0.25546062

00:52:40.825 --> 00:52:42.450 be running crisis standard care

NOTE Confidence: 0.25546062

00:52:42.507 --> 00:52:44.157 protocol like you have to have,

NOTE Confidence: 0.25546062

00:52:44.160 --> 00:52:45.770 you have to have at least like

NOTE Confidence: 0.25546062

00:52:45.770 --> 00:52:47.419 a SOFA by construction of three

NOTE Confidence: 0.25546062

00:52:47.419 --> 00:52:49.512 or four if you think about the

NOTE Confidence: 0.25546062

00:52:49.574 --> 00:52:51.359 score in order to get in there.

NOTE Confidence: 0.25546062

00:52:51.360 --> 00:52:53.586 But yes, there isn't as much correlation

NOTE Confidence: 0.25546062

00:52:53.586 --> 00:52:55.797 between age and sofa as you'd expect.

NOTE Confidence: 0.25546062

00:52:55.800 --> 00:52:58.248 But remember this is part of the problem of

NOTE Confidence: 0.25546062

00:52:58.248 --> 00:53:01.920 it just it's before the life support starts.

NOTE Confidence: 0.25546062

00:53:01.920 --> 00:53:05.840 So you're just using like how how bad was

NOTE Confidence: 0.25546062

00:53:05.840 --> 00:53:09.636 there pulse oximetry to its own problems too,

NOTE Confidence: 0.25546062

00:53:09.640 --> 00:53:11.635 right before they started on the ventilator.

NOTE Confidence: 0.25546062

00:53:11.640 --> 00:53:14.080 And so everyone's was bad.

NOTE Confidence: 0.25546062

00:53:14.080 --> 00:53:15.880 The old people and young people

NOTE Confidence: 0.25546062

00:53:15.880 --> 00:53:17.976 are about the same right there.

NOTE Confidence: 0.25546062

00:53:17.976 --> 00:53:20.120 If you recalculated everything,

NOTE Confidence: 0.25546062

00:53:20.120 --> 00:53:23.080 couple days into the ICU stay age and

NOTE Confidence: 0.25546062

00:53:23.080 --> 00:53:25.320 silk would start to be more better

NOTE Confidence: 0.25546062

00:53:25.320 --> 00:53:27.278 correlating and like you would see this red,

NOTE Confidence: 0.25546062

00:53:27.280 --> 00:53:28.445 these red lines kind of

NOTE Confidence: 0.25546062

00:53:28.445 --> 00:53:29.456 **** a little like that.

NOTE Confidence: 0.25546062

00:53:29.456 --> 00:53:30.780 Does that make sense? Yeah.

NOTE Confidence: 0.25546062

00:53:30.780 --> 00:53:31.520 Thank you.

NOTE Confidence: 0.25546062

00:53:31.520 --> 00:53:32.000 All right,

NOTE Confidence: 0.25546062

00:53:32.000 --> 00:53:32.480 great question.

NOTE Confidence: 0.25546062

00:53:32.480 --> 00:53:32.720 So,

NOTE Confidence: 0.3049378

00:53:41.040 --> 00:53:42.809 so with age, the issue is so I

NOTE Confidence: 0.3049378

00:53:42.809 --> 00:53:44.599 work in the emergency department,

NOTE Confidence: 0.3049378

00:53:44.600 --> 00:53:46.488 they tell me about 30 patients of theirs

NOTE Confidence: 0.3049378

00:53:46.488 --> 00:53:48.280 and stuff like this is an 80 year old,

NOTE Confidence: 0.3049378

00:53:48.280 --> 00:53:49.276 blah blah. And I said stop.

NOTE Confidence: 0.3049378

00:53:49.280 --> 00:53:51.503 Is this an 80 year old who was playing

NOTE Confidence: 0.3049378

00:53:51.503 --> 00:53:53.622 golf earlier today or is this an 80 year

NOTE Confidence: 0.3049378

00:53:53.622 --> 00:53:55.277 old who scrolled up in a ball in the

NOTE Confidence: 0.3049378

00:53:55.277 --> 00:53:57.080 nursing home with three times of cancer?

NOTE Confidence: 0.3049378

00:53:57.080 --> 00:53:58.520 Because it's very different.

NOTE Confidence: 0.3049378

00:53:58.520 --> 00:54:00.320 But then immediately we're interested

NOTE Confidence: 0.3049378

00:54:00.320 --> 00:54:03.712 in ableism, you know, And so you know,

NOTE Confidence: 0.3049378

00:54:03.712 --> 00:54:05.740 in medicine we rarely think about

NOTE Confidence: 0.3049378

00:54:05.812 --> 00:54:07.637 age in any other situation.

NOTE Confidence: 0.3049378

00:54:07.640 --> 00:54:09.160 We're always talking about functional status.

NOTE Confidence: 0.3049378

00:54:09.160 --> 00:54:10.845 For 20 or 30 years,

NOTE Confidence: 0.3049378

00:54:10.845 --> 00:54:12.720 it's all about functional status.

NOTE Confidence: 0.3049378

00:54:12.720 --> 00:54:14.746 But then I just get, you know,

NOTE Confidence: 0.3049378

00:54:14.746 --> 00:54:17.000 twirled up and and and stuck.

NOTE Confidence: 0.3049378

00:54:17.000 --> 00:54:19.116 Yeah, age doesn't even want his own.

NOTE Confidence: 0.3049378

00:54:19.120 --> 00:54:20.200 But it it should matter.

NOTE Confidence: 0.3101607

00:54:20.720 --> 00:54:24.075 Yeah, I think it's obviously there's for

NOTE Confidence: 0.3101607

00:54:24.075 --> 00:54:26.840 any given numerical age someone is 80,

NOTE Confidence: 0.3101607

00:54:26.840 --> 00:54:30.095 let's say that that has there's a

NOTE Confidence: 0.3101607

00:54:30.095 --> 00:54:32.440 distribution of what that means

NOTE Confidence: 0.3101607

00:54:32.440 --> 00:54:34.196 for surviving critical illness.

NOTE Confidence: 0.3101607

00:54:34.196 --> 00:54:36.830 Some 80 year olds probably are

NOTE Confidence: 0.3101607

00:54:36.900 --> 00:54:38.770 actually like the average 70

NOTE Confidence: 0.3101607

00:54:38.770 --> 00:54:41.640 year old or 65 year old, right.

NOTE Confidence: 0.3101607

00:54:41.640 --> 00:54:43.532 But that being said,

NOTE Confidence: 0.3101607

00:54:43.532 --> 00:54:45.920 I think you using the average

NOTE Confidence: 0.3101607

00:54:45.920 --> 00:54:48.440 value for the average 80 year old,

NOTE Confidence: 0.3101607

00:54:48.440 --> 00:54:50.786 so including your two extreme examples

NOTE Confidence: 0.3101607

00:54:50.786 --> 00:54:53.795 in the middle is part of the triage

NOTE Confidence: 0.3101607

00:54:53.795 --> 00:54:55.630 score is ethically justified because

NOTE Confidence: 0.3101607

00:54:55.701 --> 00:54:57.917 our goal is to save the most lives.

NOTE Confidence: 0.3101607

00:54:57.920 --> 00:55:00.027 And you know if you look at

NOTE Confidence: 0.3101607

00:55:00.027 --> 00:55:01.280 the relationship between COVID

NOTE Confidence: 0.27277675

00:55:05.370 --> 00:55:08.055 anti pneumonia or critical illness

NOTE Confidence: 0.27277675

00:55:08.055 --> 00:55:10.918 in general and survival or mortality,

NOTE Confidence: 0.27277675

00:55:10.918 --> 00:55:12.688 it just stopped like that.

NOTE Confidence: 0.27277675

00:55:12.690 --> 00:55:15.865 So particularly after 80 is

NOTE Confidence: 0.27277675

00:55:15.865 --> 00:55:18.405 when things really skyrocket.

NOTE Confidence: 0.27277675

00:55:18.410 --> 00:55:20.727 But no, your point is well taken.

NOTE Confidence: 0.27277675

00:55:20.730 --> 00:55:22.595 Chronological age is an imperfect

NOTE Confidence: 0.27277675

00:55:22.595 --> 00:55:24.460 variable here but I would

NOTE Confidence: 0.27277675

00:55:24.532 --> 00:55:26.367 argue it's one complicated or

NOTE Confidence: 0.27277675

00:55:28.570 --> 00:55:29.614 question I have is you

NOTE Confidence: 0.27277675

00:55:29.614 --> 00:55:30.760 guys so much more did that

NOTE Confidence: 0.27277675

00:55:30.808 --> 00:55:32.173 was the type of the cycle plan

NOTE Confidence: 0.27277675

00:55:32.173 --> 00:55:33.530 as well as the subdivsines

NOTE Confidence: 0.3211300125

00:55:34.690 --> 00:55:35.749 that's there. Yeah.

NOTE Confidence: 0.3211300125

00:55:35.749 --> 00:55:38.552 The sofa score does not have any history.

NOTE Confidence: 0.3211300125

00:55:38.552 --> 00:55:40.960 The the sofa score is just based

NOTE Confidence: 0.3211300125

00:55:41.029 --> 00:55:43.577 on lab values and mild signs and

NOTE Confidence: 0.3211300125

00:55:43.577 --> 00:55:46.120 medications that the patient's receiving.

NOTE Confidence: 0.3211300125

00:55:46.120 --> 00:55:49.008 So the sofa score does not you know,

NOTE Confidence: 0.3211300125

00:55:49.008 --> 00:55:49.800 which is nice.

NOTE Confidence: 0.3211300125

00:55:49.800 --> 00:55:51.432 This is why he's appealing, right.

NOTE Confidence: 0.3211300125

00:55:51.432 --> 00:55:54.024 It's like this kind of objective

NOTE Confidence: 0.3211300125

00:55:54.024 --> 00:55:55.768 descrip description the patient's

NOTE Confidence: 0.3211300125

00:55:55.768 --> 00:55:57.560 physiological state without any

NOTE Confidence: 0.3211300125

00:55:57.560 --> 00:56:00.285 stigmatizing points for their past medical

NOTE Confidence: 0.3211300125

00:56:00.285 --> 00:56:02.395 history or other medical conditions

NOTE Confidence: 0.26052567

00:56:04.720 --> 00:56:05.320 And So what

NOTE Confidence: 0.26052567

00:56:05.320 --> 00:56:07.584 if you are fit with other than that

NOTE Confidence: 0.26052567

00:56:07.584 --> 00:56:10.351 is is the fact that we do have other

NOTE Confidence: 0.26052567

00:56:10.351 --> 00:56:12.760 than that the which the substance use

NOTE Confidence: 0.26052567

00:56:12.760 --> 00:56:16.930 as well as many on the site that we're

NOTE Confidence: 0.26052567

00:56:16.930 --> 00:56:19.200 dealing with after that the COVID.

NOTE Confidence: 0.26052567

00:56:19.200 --> 00:56:21.695 So I always call people to play into

NOTE Confidence: 0.26052567

00:56:21.695 --> 00:56:23.350 evaluating persons coming into the

NOTE Confidence: 0.26052567

00:56:23.411 --> 00:56:25.463 hospital where they can save them

NOTE Confidence: 0.26052567

00:56:25.463 --> 00:56:27.840 because they're younger and they got it,

NOTE Confidence: 0.26052567

00:56:27.840 --> 00:56:30.160 it might go out and do something with the

NOTE Confidence: 0.25709173

00:56:31.160 --> 00:56:31.750 guidance, right.

NOTE Confidence: 0.25709173

00:56:31.750 --> 00:56:33.225 This gets into what benefit

NOTE Confidence: 0.25709173

00:56:33.225 --> 00:56:34.760 are you trying to maximize?

NOTE Confidence: 0.25709173

00:56:34.760 --> 00:56:36.998 Is there should you think about

NOTE Confidence: 0.25709173

00:56:36.998 --> 00:56:38.861 other things than just who's

NOTE Confidence: 0.25709173

00:56:38.861 --> 00:56:40.919 alive at the end of the day,

NOTE Confidence: 0.25709173

00:56:40.920 --> 00:56:42.544 I think it's really tricky when you

NOTE Confidence: 0.25709173

00:56:42.544 --> 00:56:44.842 start to do quality adjusted life years

NOTE Confidence: 0.25709173

00:56:44.842 --> 00:56:46.394 calculation and cost effectiveness.

NOTE Confidence: 0.25709173

00:56:46.400 --> 00:56:47.640 People love to do right,

NOTE Confidence: 0.25709173

00:56:47.640 --> 00:56:51.080 Discounting certain types of life,

NOTE Confidence: 0.25709173

00:56:51.080 --> 00:56:53.348 you know, how do you even assign that value

NOTE Confidence: 0.25709173

00:56:53.348 --> 00:56:55.637 if someone with substance use disorder,

NOTE Confidence: 0.25709173

00:56:55.640 --> 00:56:57.570 should they have like the

NOTE Confidence: 0.25709173

00:56:57.570 --> 00:56:59.114 priority lower about 20%?

NOTE Confidence: 0.25709173

00:56:59.120 --> 00:57:01.232 I don't think that that's hard to build

NOTE Confidence: 0.25709173

00:57:01.232 --> 00:57:03.391 that and justification to that nice thing

NOTE Confidence: 0.25709173

00:57:03.391 --> 00:57:05.680 about lives just sort of objectively,

NOTE Confidence: 0.25709173

00:57:05.680 --> 00:57:07.430 I mean treats back to

NOTE Confidence: 0.25709173

00:57:07.430 --> 00:57:08.480 treating people equally.

NOTE Confidence: 0.25709173

00:57:08.480 --> 00:57:09.776 Everyone's a person even if you

NOTE Confidence: 0.25709173

00:57:09.776 --> 00:57:10.640 have chronic medical conditions.

NOTE Confidence: 0.36577955

00:57:12.880 --> 00:57:13.840 One thing you mentioned

NOTE Confidence: 0.36577955

00:57:13.840 --> 00:57:16.582 right at the beginning of your

NOTE Confidence: 0.36577955

00:57:16.582 --> 00:57:19.710 talk and wondering if this might be

NOTE Confidence: 0.36577955

00:57:19.710 --> 00:57:23.320 accurate is is user regression model.

NOTE Confidence: 0.36577955

00:57:23.320 --> 00:57:27.133 Instead of having a triage store where

NOTE Confidence: 0.36577955

00:57:27.133 --> 00:57:30.304 you with a triage store you're making

NOTE Confidence: 0.36577955

00:57:30.304 --> 00:57:32.800 arbitrary decisions about what categories

NOTE Confidence: 0.36577955

00:57:32.800 --> 00:57:37.656 can predict mortality, and with a

NOTE Confidence: 0.36577955

00:57:37.656 --> 00:57:40.680 regression model you find out what.

NOTE Confidence: 0.36577955

00:57:40.680 --> 00:57:43.837 You find out what factors predict mortality.

NOTE Confidence: 0.36577955

00:57:43.840 --> 00:57:47.662 And it may be that in certain

NOTE Confidence: 0.36577955

00:57:47.662 --> 00:57:50.306 cases age is important.

NOTE Confidence: 0.36577955

00:57:50.306 --> 00:57:53.731 But you know, I guess is if

NOTE Confidence: 0.36577955

00:57:53.731 --> 00:57:57.397 somebody comes in short of breath,

NOTE Confidence: 0.36577955

00:57:57.400 --> 00:57:59.402 it's going to be way more important

NOTE Confidence: 0.36577955

00:57:59.402 --> 00:58:01.488 that they have in your renal failure

NOTE Confidence: 0.36577955

00:58:01.488 --> 00:58:03.240 than if they're 70 years old.

NOTE Confidence: 0.36577955

00:58:03.240 --> 00:58:07.060 I mean the the age is going to be,

NOTE Confidence: 0.36577955

00:58:07.060 --> 00:58:07.600 well, maybe,

NOTE Confidence: 0.36577955

00:58:07.600 --> 00:58:09.520 but that's what the regression will test.

NOTE Confidence: 0.36577955

00:58:09.520 --> 00:58:11.212 So that's exactly right and that's

NOTE Confidence: 0.36577955

00:58:11.212 --> 00:58:12.720 exactly the approach we're taking.

NOTE Confidence: 0.36577955

00:58:12.720 --> 00:58:14.065 We're developing a development data

NOTE Confidence: 0.36577955

00:58:14.065 --> 00:58:15.731 set where we're fitting a multi

NOTE Confidence: 0.36577955

00:58:15.731 --> 00:58:17.076 variable prediction model which will

NOTE Confidence: 0.36577955

00:58:17.076 --> 00:58:19.000 probably just be a simple regression.

NOTE Confidence: 0.36577955

00:58:19.000 --> 00:58:20.365 From that regression,

NOTE Confidence: 0.36577955

00:58:20.365 --> 00:58:22.640 we'll make a triage score.

NOTE Confidence: 0.36577955

00:58:22.640 --> 00:58:24.464 All it does is all you do is

NOTE Confidence: 0.36577955

00:58:24.464 --> 00:58:26.054 convert the predictions from the

NOTE Confidence: 0.36577955

00:58:26.054 --> 00:58:27.839 model to numbers that's what.

NOTE Confidence: 0.36577955

00:58:27.840 --> 00:58:30.829 And then propose that and the relative

NOTE Confidence: 0.36577955

00:58:30.829 --> 00:58:33.812 weight of age to an urog renal

NOTE Confidence: 0.36577955

00:58:33.812 --> 00:58:36.560 failure will be something I make up.

NOTE Confidence: 0.36577955

00:58:36.560 --> 00:58:38.723 It'll be based on the you know

NOTE Confidence: 0.36577955

00:58:38.723 --> 00:58:39.650 Cisco relationship between

NOTE Confidence: 0.36577955

00:58:39.705 --> 00:58:41.440 those variables and the outcome.

NOTE Confidence: 0.36577955

00:58:41.440 --> 00:58:43.036 So yeah thanks for that comment.

NOTE Confidence: 0.36577955

00:58:43.040 --> 00:58:44.120 That's that's perfect.

NOTE Confidence: 0.36577955

00:58:44.120 --> 00:58:45.200 That's the plan.

NOTE Confidence: 0.36577955

00:58:45.200 --> 00:58:46.856 And that makes this prevents us

NOTE Confidence: 0.36577955

00:58:46.856 --> 00:58:48.386 from being anti ageist, right.

NOTE Confidence: 0.36577955

00:58:48.386 --> 00:58:50.516 Because that's just what the,

NOTE Confidence: 0.36577955

00:58:50.520 --> 00:58:52.902 you know the the fiscal relationship

NOTE Confidence: 0.36577955

00:58:52.902 --> 00:58:55.200 between age and ICU survival,

NOTE Confidence: 0.36577955

00:58:55.200 --> 00:58:57.150 controlling a pot for all the

NOTE Confidence: 0.36577955

00:58:57.150 --> 00:58:58.450 other important medical variables

NOTE Confidence: 0.36577955

00:58:58.507 --> 00:59:00.159 that we can measure at the time.

NOTE Confidence: 0.36577955

00:59:00.160 --> 00:59:02.240 It's not age alone.

NOTE Confidence: 0.36577955

00:59:02.240 --> 00:59:03.680 So I I I want.

NOTE Confidence: 0.36577955

00:59:03.680 --> 00:59:05.792 I'm worried that in in my mind that

NOTE Confidence: 0.36577955

00:59:05.792 --> 00:59:08.102 maybe and some others it's easy to

NOTE Confidence: 0.36577955

00:59:08.102 --> 00:59:10.600 complete 22 important but separate issues.

NOTE Confidence: 0.36577955

00:59:10.600 --> 00:59:12.692 One is that the age is going

NOTE Confidence: 0.36577955

00:59:12.692 --> 00:59:13.744 to predict survival.

NOTE Confidence: 0.36577955

00:59:13.744 --> 00:59:15.440 But there's the separate,

NOTE Confidence: 0.36577955

00:59:15.440 --> 00:59:15.840 the fair.

NOTE Confidence: 0.36577955

00:59:15.840 --> 00:59:17.616 The fair eatings argument is really

NOTE Confidence: 0.36577955

00:59:17.616 --> 00:59:19.036 a separate discussion isn't it?

NOTE Confidence: 0.36577955

00:59:19.040 --> 00:59:20.475 It's not just about how age predictions,

NOTE Confidence: 0.28912687

00:59:21.280 --> 00:59:22.480 even if two individuals

NOTE Confidence: 0.28912687

00:59:22.680 --> 00:59:24.702 with the exact same likelihood of

NOTE Confidence: 0.28912687

00:59:24.702 --> 00:59:26.440 surviving COVID or whatever it is,

NOTE Confidence: 0.28912687

00:59:26.440 --> 00:59:29.250 one is 80 and one is 30, Those of us,

NOTE Confidence: 0.28912687

00:59:29.250 --> 00:59:30.840 and I'm with those who advocate

NOTE Confidence: 0.28912687

00:59:30.840 --> 00:59:32.360 for the fair eatings argument,

NOTE Confidence: 0.28912687

00:59:32.360 --> 00:59:34.033 we still say that then we should

NOTE Confidence: 0.28912687

00:59:34.033 --> 00:59:35.884 favour the 30 year old over the 80

NOTE Confidence: 0.28912687

00:59:35.884 --> 00:59:38.768 year old regardless of the predicted,

NOTE Confidence: 0.28912687

00:59:38.768 --> 00:59:42.440 the predicted mortality is the same.

NOTE Confidence: 0.28912687

00:59:42.440 --> 00:59:44.501 Yeah, I mean that's what I was trying to

NOTE Confidence: 0.28912687

00:59:44.501 --> 00:59:46.618 do with this slide is sort of separate

NOTE Confidence: 0.28912687

00:59:46.618 --> 00:59:48.960 those two out and prevent that conflation.

NOTE Confidence: 0.28912687

00:59:48.960 --> 00:59:50.640 You know, I think that for for

NOTE Confidence: 0.28912687

00:59:50.640 --> 00:59:52.800 those of us who are closet fairings,

NOTE Confidence: 0.28912687

00:59:52.800 --> 00:59:55.765 people like Mossad, we,

NOTE Confidence: 0.28912687

00:59:55.765 --> 00:59:58.340 I think we just make this argument right.

NOTE Confidence: 0.28912687

00:59:58.340 --> 00:59:59.240 The second one,

NOTE Confidence: 0.28912687

00:59:59.240 --> 01:00:01.402 the one that is much harder to

NOTE Confidence: 0.28912687

01:00:01.402 --> 01:00:03.166 push back against because we can

NOTE Confidence: 0.28912687

01:00:03.166 --> 01:00:05.439 forget we can fit regression models.

NOTE Confidence: 0.28912687

01:00:05.440 --> 01:00:06.456 We can.

NOTE Confidence: 0.28912687

01:00:06.456 --> 01:00:08.488 Isolate the independent prediction

NOTE Confidence: 0.28912687

01:00:08.488 --> 01:00:09.930 of a effective age,

NOTE Confidence: 0.28912687

01:00:09.930 --> 01:00:12.494 and I should have said controlling for

NOTE Confidence: 0.28912687

01:00:12.494 --> 01:00:15.029 all other measurable clinical variables

NOTE Confidence: 0.28912687

01:00:15.029 --> 01:00:17.916 that we can gather and just say all

NOTE Confidence: 0.28912687

01:00:17.916 --> 01:00:19.760 we're trying to do is save lives here.

NOTE Confidence: 0.28912687

01:00:19.760 --> 01:00:21.360 We love old people.

NOTE Confidence: 0.28912687

01:00:21.360 --> 01:00:22.160 Their value,

NOTE Confidence: 0.28912687

01:00:22.160 --> 01:00:23.630 the life of an old person and

NOTE Confidence: 0.28912687

01:00:23.630 --> 01:00:24.880 a young person is the same.

NOTE Confidence: 0.28912687

01:00:24.880 --> 01:00:27.080 We're not going to do fair ending stuff,

NOTE Confidence: 0.28912687

01:00:27.080 --> 01:00:28.046 and in practice,

NOTE Confidence: 0.28912687

01:00:28.046 --> 01:00:30.717 though you will have life years and fairness

NOTE Confidence: 0.28912687

01:00:30.717 --> 01:00:33.160 benefits when you put that in place,

NOTE Confidence: 0.28912687

01:00:33.160 --> 01:00:34.824 if that makes sense.

NOTE Confidence: 0.28912687

01:00:34.824 --> 01:00:38.106 Even though you're not building that explicit

NOTE Confidence: 0.28912687

01:00:38.106 --> 01:00:40.735 tiebreaker mechanism like you described,

NOTE Confidence: 0.28912687

01:00:40.735 --> 01:00:42.355 Mark into your score.

NOTE Confidence: 0.28912687

01:00:42.360 --> 01:00:43.038 At the end of the day,

NOTE Confidence: 0.28912687

01:00:43.040 --> 01:00:44.276 at the end of the simulation,

NOTE Confidence: 0.28912687

01:00:44.280 --> 01:00:46.872 you're going to save a ton more life

NOTE Confidence: 0.28912687

01:00:46.872 --> 01:00:49.320 years if you use age in this way.

NOTE Confidence: 0.28912687

01:00:49.320 --> 01:00:50.120 Does that make sense?

NOTE Confidence: 0.5167727

01:00:53.240 --> 01:00:55.460 I was wondering I guess like on

NOTE Confidence: 0.5167727

01:00:55.460 --> 01:00:56.930 a slightly different note in the

NOTE Confidence: 0.5167727

01:00:56.986 --> 01:00:58.516 context of the COVID vaccines,

NOTE Confidence: 0.5167727

01:00:58.520 --> 01:01:01.696 when you said that the elderly got confers

NOTE Confidence: 0.5167727

01:01:01.696 --> 01:01:04.462 because there was a stronger benefit, Yeah.

NOTE Confidence: 0.5167727

01:01:04.462 --> 01:01:07.216 To what extent is, I'm not familiar as

NOTE Confidence: 0.5167727

01:01:07.216 --> 01:01:08.560 familiar with a lot of these models.

NOTE Confidence: 0.5167727

01:01:08.560 --> 01:01:10.510 To what extent is therapeutic benefit

NOTE Confidence: 0.5167727

01:01:10.510 --> 01:01:13.131 included in these models or is that like a

NOTE Confidence: 0.5167727

01:01:13.131 --> 01:01:14.920 case specific thing or disease specific?

NOTE Confidence: 0.5167727

01:01:14.920 --> 01:01:17.512 Well, yeah, I mean the for for the vaccines,

NOTE Confidence: 0.5167727

01:01:17.520 --> 01:01:20.012 it's you basically say who's most likely

NOTE Confidence: 0.5167727

01:01:20.012 --> 01:01:22.655 to die from COVID, who's on vaccinate.

NOTE Confidence: 0.5167727

01:01:22.655 --> 01:01:24.625 It's the oldest people, right?

NOTE Confidence: 0.5167727

01:01:24.625 --> 01:01:28.160 So by protecting them with the vaccine,

NOTE Confidence: 0.5167727

01:01:28.160 --> 01:01:30.368 it's like the the exact opposite

NOTE Confidence: 0.5167727

01:01:30.368 --> 01:01:31.472 of this situation.

NOTE Confidence: 0.5167727

01:01:31.480 --> 01:01:33.125 Then you dramatically lower their

NOTE Confidence: 0.5167727

01:01:33.125 --> 01:01:35.380 risk of death from COVID and you

NOTE Confidence: 0.5167727

01:01:35.380 --> 01:01:36.476 save more lives here.

NOTE Confidence: 0.5167727

01:01:36.480 --> 01:01:38.500 Everyone who doesn't get treated

NOTE Confidence: 0.5167727

01:01:38.500 --> 01:01:40.874 with life support dies by definition

NOTE Confidence: 0.5167727

01:01:40.874 --> 01:01:42.759 because they're in respiratory failure,

NOTE Confidence: 0.5167727

01:01:42.760 --> 01:01:45.439 cardiac failure, right.

NOTE Confidence: 0.5167727

01:01:45.440 --> 01:01:47.988 And so then you need to identify

NOTE Confidence: 0.5167727

01:01:47.988 --> 01:01:50.331 the people most likely to survive

NOTE Confidence: 0.5167727

01:01:50.331 --> 01:01:52.276 to save the most lives.

NOTE Confidence: 0.5167727

01:01:52.280 --> 01:01:53.896 I should move on to the slack ones

NOTE Confidence: 0.5167727

01:01:53.896 --> 01:01:55.936 or if it gets harder, harder for me.

NOTE Confidence: 0.5167727

01:01:55.936 --> 01:01:58.440 But Mark, do you want to say something or.

NOTE Confidence: 0.5167727

01:01:58.440 --> 01:01:59.360 Yeah,

NOTE Confidence: 0.5167727

01:01:59.360 --> 01:02:00.773 so one thing that seems like there's

NOTE Confidence: 0.5167727

01:02:00.773 --> 01:02:03.038 like certain effort to remove

NOTE Confidence: 0.5167727

01:02:03.040 --> 01:02:06.960 judgment a lot of these metrics.

NOTE Confidence: 0.5167727

01:02:06.960 --> 01:02:08.836 So, so for example,

NOTE Confidence: 0.5167727

01:02:08.836 --> 01:02:10.712 we're taking something that's

NOTE Confidence: 0.5167727

01:02:10.712 --> 01:02:13.038 incontrovertible like how old somebody is.

NOTE Confidence: 0.5167727

01:02:13.040 --> 01:02:13.295 But,

NOTE Confidence: 0.5167727

01:02:13.295 --> 01:02:15.080 but as you sort of applied before,

NOTE Confidence: 0.5167727

01:02:15.080 --> 01:02:15.568 you know,

NOTE Confidence: 0.5167727

01:02:15.568 --> 01:02:17.276 you get some divisions in the room

NOTE Confidence: 0.26735982

01:02:18.400 --> 01:02:19.240 and they can probably

NOTE Confidence: 0.26735982

01:02:19.480 --> 01:02:21.400 predict a pretty algorithm too,

NOTE Confidence: 0.26735982

01:02:21.400 --> 01:02:22.798 like who's calling? And so I'm

NOTE Confidence: 0.26735982

01:02:23.760 --> 01:02:25.038 wondering, have you thought about using

NOTE Confidence: 0.26735982

01:02:25.040 --> 01:02:28.024 and they probably use the person's H or

NOTE Confidence: 0.26735982

01:02:28.024 --> 01:02:30.120 they're pure H but a lot of things too,

NOTE Confidence: 0.26735982

01:02:30.120 --> 01:02:31.776 like like Karen is standing out

NOTE Confidence: 0.26735982

01:02:31.776 --> 01:02:33.320 like frailty or *****. Yeah.

NOTE Confidence: 0.26735982

01:02:33.320 --> 01:02:35.892 So have you thought at all about

NOTE Confidence: 0.26735982

01:02:35.892 --> 01:02:37.757 it taking a Bayesian statistical

NOTE Confidence: 0.26735982

01:02:37.760 --> 01:02:39.200 approach where somebody says, well,

NOTE Confidence: 0.26735982

01:02:39.200 --> 01:02:41.748 I've got a pretest probability of XYZ

NOTE Confidence: 0.26735982

01:02:41.748 --> 01:02:43.720 and now, you know, like some data.

NOTE Confidence: 0.26735982

01:02:43.720 --> 01:02:46.765 So actually having the for your absolute

NOTE Confidence: 0.26735982

01:02:46.765 --> 01:02:49.079 position state their prior belief,

NOTE Confidence: 0.26735982

01:02:49.080 --> 01:02:50.800 I mean just to exhibit doesn't,

NOTE Confidence: 0.26735982

01:02:50.800 --> 01:02:52.582 because I didn't mean that that

NOTE Confidence: 0.26735982

01:02:52.582 --> 01:02:53.760 statistic doesn't really stand

NOTE Confidence: 0.26735982

01:02:53.760 --> 01:02:55.320 alone in the absence of other.

NOTE Confidence: 0.26735982

01:02:55.320 --> 01:02:58.757 That's cool. That's a really cool idea.

NOTE Confidence: 0.26735982

01:02:58.760 --> 01:02:59.828 I try to.

NOTE Confidence: 0.26735982

01:02:59.828 --> 01:03:02.320 I'm trying now to keep things simpler,

NOTE Confidence: 0.26735982

01:03:02.320 --> 01:03:03.360 but I really like that.

NOTE Confidence: 0.26735982

01:03:03.360 --> 01:03:04.686 So you would need of course

NOTE Confidence: 0.26735982

01:03:04.686 --> 01:03:06.280 a data set of predictions,

NOTE Confidence: 0.26735982

01:03:06.280 --> 01:03:07.516 which would be hard to obtain,

NOTE Confidence: 0.26735982

01:03:07.520 --> 01:03:08.687 of subjective predictions.

NOTE Confidence: 0.26735982

01:03:08.687 --> 01:03:11.410 You would need a data set perspectively

NOTE Confidence: 0.26735982

01:03:11.475 --> 01:03:13.599 collected of prediction from the ER,

NOTE Confidence: 0.26735982

01:03:13.600 --> 01:03:16.134 for example, before they debated some other

NOTE Confidence: 0.26735982

01:03:16.134 --> 01:03:18.759 like what's the probability of survival?

NOTE Confidence: 0.26735982

01:03:18.760 --> 01:03:19.440 That's cool.

NOTE Confidence: 0.26735982

01:03:19.440 --> 01:03:20.120 All right.

NOTE Confidence: 0.26735982

01:03:20.120 --> 01:03:23.000 So now this one is a really big problem,

NOTE Confidence: 0.26735982

01:03:23.000 --> 01:03:27.285 very perhaps the most contentious thing I

NOTE Confidence: 0.26735982

01:03:27.285 --> 01:03:29.560 think in in the current biological debate,

NOTE Confidence: 0.26735982

01:03:29.560 --> 01:03:30.670 and that's how to address

NOTE Confidence: 0.26735982

01:03:30.670 --> 01:03:31.114 structural inequity.

NOTE Confidence: 0.26735982

01:03:31.120 --> 01:03:31.960 I showed you this earlier,

NOTE Confidence: 0.26735982

01:03:31.960 --> 01:03:32.338 right?

NOTE Confidence: 0.26735982

01:03:32.338 --> 01:03:34.228 Where people died in Chicago

NOTE Confidence: 0.26735982

01:03:34.228 --> 01:03:36.320 was based on structural factors,

NOTE Confidence: 0.26735982

01:03:36.320 --> 01:03:38.720 based on a history of redlining.

NOTE Confidence: 0.26735982

01:03:38.720 --> 01:03:40.352 People with disadvantaged communities

NOTE Confidence: 0.26735982

01:03:40.352 --> 01:03:43.297 were much more likely to acquire COVID-19

NOTE Confidence: 0.26735982

01:03:43.297 --> 01:03:46.279 because of where they were living,

NOTE Confidence: 0.26735982

01:03:46.280 --> 01:03:48.520 because of where they had to work.

NOTE Confidence: 0.26735982

01:03:48.520 --> 01:03:49.568 They had to be.

NOTE Confidence: 0.26735982

01:03:49.568 --> 01:03:50.354 They're essential workers.

NOTE Confidence: 0.26735982

01:03:50.360 --> 01:03:52.244 They're out acquiring COVID-19

NOTE Confidence: 0.26735982

01:03:52.244 --> 01:03:54.599 living in congregate living settings.

NOTE Confidence: 0.26735982

01:03:54.600 --> 01:03:56.334 They didn't have the luxury of

NOTE Confidence: 0.26735982

01:03:56.334 --> 01:03:57.490 locking themselves in their

NOTE Confidence: 0.26735982

01:03:57.543 --> 01:03:59.037 room and zooming all the time.

NOTE Confidence: 0.26735982

01:03:59.040 --> 01:04:00.880 They had to be out of that in the world.

NOTE Confidence: 0.26735982

01:04:00.880 --> 01:04:02.973 And all of this is because the

NOTE Confidence: 0.26735982

01:04:02.973 --> 01:04:04.639 city is designed on purpose,

NOTE Confidence: 0.26735982

01:04:04.640 --> 01:04:06.160 or was designed on purpose,

NOTE Confidence: 0.26735982

01:04:06.160 --> 01:04:06.943 I should say,

NOTE Confidence: 0.26735982

01:04:06.943 --> 01:04:09.080 by the federal government to look like that,

NOTE Confidence: 0.26735982

01:04:09.080 --> 01:04:09.496 right?

NOTE Confidence: 0.26735982

01:04:09.496 --> 01:04:11.160 That's what redlining is,

NOTE Confidence: 0.26735982

01:04:11.160 --> 01:04:13.504 a systematic investment disinvestment

NOTE Confidence: 0.26735982

01:04:13.504 --> 01:04:16.434 campaign that was explicitly racist.

NOTE Confidence: 0.26735982

01:04:16.440 --> 01:04:20.332 If you haven't read this Mapping

NOTE Confidence: 0.26735982

01:04:20.332 --> 01:04:20.996 Inequality website,

NOTE Confidence: 0.26735982

01:04:20.996 --> 01:04:23.320 I strongly encourage you to see it.

NOTE Confidence: 0.26735982

01:04:23.320 --> 01:04:25.560 I The words are repugnant,

NOTE Confidence: 0.26735982

01:04:25.560 --> 01:04:27.912 but it makes it quite clear that

NOTE Confidence: 0.26735982

01:04:27.912 --> 01:04:30.317 our cities were designed by the

NOTE Confidence: 0.26735982

01:04:30.317 --> 01:04:32.522 federal government to be racially

NOTE Confidence: 0.26735982

01:04:32.522 --> 01:04:34.410 segregated on purpose, right?

NOTE Confidence: 0.26735982

01:04:34.410 --> 01:04:37.000 And we have to deal with this

NOTE Confidence: 0.26735982

01:04:37.000 --> 01:04:39.364 in sort of everything we're

NOTE Confidence: 0.26735982

01:04:39.364 --> 01:04:41.140 addressing from clinical medical

NOTE Confidence: 0.26735982

01:04:41.140 --> 01:04:42.916 ethics and bioethics perspective.

NOTE Confidence: 0.26735982

01:04:42.920 --> 01:04:47.320 But the question is how to handle this,

NOTE Confidence: 0.26735982

01:04:47.320 --> 01:04:49.520 this history of structural racism,

NOTE Confidence: 0.26735982

01:04:49.520 --> 01:04:52.797 this history of disadvantaging

NOTE Confidence: 0.26735982

01:04:52.797 --> 01:04:54.982 certain populations on purpose when

NOTE Confidence: 0.26735982

01:04:54.982 --> 01:04:57.399 we're making a triage score for,

NOTE Confidence: 0.26735982

01:04:57.400 --> 01:04:57.748 like,

NOTE Confidence: 0.26735982

01:04:57.748 --> 01:04:58.444 crisis care.

NOTE Confidence: 0.26735982

01:04:58.444 --> 01:05:00.532 And what I'm gonna go through

NOTE Confidence: 0.26735982

01:05:00.532 --> 01:05:02.896 is 4 different ideas I have.

NOTE Confidence: 0.26735982

01:05:02.896 --> 01:05:05.224 Kind of taken from the machine

NOTE Confidence: 0.26735982

01:05:05.224 --> 01:05:06.680 learning literature actually,

NOTE Confidence: 0.26735982

01:05:06.680 --> 01:05:08.445 about different goals you could

NOTE Confidence: 0.26735982

01:05:08.445 --> 01:05:10.840 have when you're making a protocol,

NOTE Confidence: 0.26735982

01:05:10.840 --> 01:05:12.680 and I'll go through these one by one.

NOTE Confidence: 0.26735982

01:05:12.680 --> 01:05:15.520 The 1st is demographic parity,

NOTE Confidence: 0.26735982

01:05:15.520 --> 01:05:18.872 which is each member of any

NOTE Confidence: 0.26735982

01:05:18.872 --> 01:05:21.020 racial ethnic group has the same

NOTE Confidence: 0.26735982

01:05:21.099 --> 01:05:23.558 probability of receiving truth, right?

NOTE Confidence: 0.26735982

01:05:23.558 --> 01:05:25.782 Probably the only way you can do that

NOTE Confidence: 0.26735982

01:05:25.782 --> 01:05:28.316 in practice mathematically is a lottery,

NOTE Confidence: 0.26735982

01:05:28.320 --> 01:05:29.244 a random assignment.

NOTE Confidence: 0.26735982

01:05:29.244 --> 01:05:31.400 It turns out that works pretty well,

NOTE Confidence: 0.6536875

01:05:31.400 --> 01:05:34.217 right? Almost as well as using sofa in terms

NOTE Confidence: 0.6536875

01:05:34.217 --> 01:05:37.000 of saving lives because of sofa's bias.

NOTE Confidence: 0.6536875

01:05:37.000 --> 01:05:39.493 But if you it, it's far from the optimal

NOTE Confidence: 0.6536875

01:05:39.493 --> 01:05:41.639 solution in terms of maximizing benefits.

NOTE Confidence: 0.6536875

01:05:41.640 --> 01:05:45.030 So a lottery while we achieve

NOTE Confidence: 0.6536875

01:05:45.030 --> 01:05:47.600 equal allocation does not

NOTE Confidence: 0.6536875

01:05:47.600 --> 01:05:49.760 respect maximizing benefits.

NOTE Confidence: 0.6536875

01:05:49.760 --> 01:05:52.640 So then the next idea is non discrimination.

NOTE Confidence: 0.6536875

01:05:52.640 --> 01:05:54.504 But make sure your SOFA is not biased

NOTE Confidence: 0.6536875

01:05:54.504 --> 01:05:56.158 against the racial and ethnic group.

NOTE Confidence: 0.6536875

01:05:56.160 --> 01:05:57.798 Be very sensitive that certain groups,

NOTE Confidence: 0.6536875

01:05:57.800 --> 01:06:00.236 particularly for black patients for example,

NOTE Confidence: 0.6536875

01:06:00.240 --> 01:06:01.840 have been structurally disadvantaged

NOTE Confidence: 0.6536875

01:06:01.840 --> 01:06:05.238 by our society and we have to be extra

NOTE Confidence: 0.6536875

01:06:05.238 --> 01:06:07.415 careful to not make things worse when

NOTE Confidence: 0.6536875

01:06:07.481 --> 01:06:09.637 we're allocating scarce resources.

NOTE Confidence: 0.6536875

01:06:09.640 --> 01:06:10.030 Right.

NOTE Confidence: 0.6536875

01:06:10.030 --> 01:06:12.760 And I hopefully have made the argument

NOTE Confidence: 0.6536875

01:06:12.760 --> 01:06:15.723 and convinced you that SOFA would violate

NOTE Confidence: 0.6536875

01:06:15.723 --> 01:06:17.838 this principle of non discrimination

NOTE Confidence: 0.6536875

01:06:17.840 --> 01:06:20.594 and it would exacerbate the disparities

NOTE Confidence: 0.6536875

01:06:20.594 --> 01:06:23.879 that we've already seen in the COVID-19

NOTE Confidence: 0.6536875

01:06:23.879 --> 01:06:26.159 pandemic if implemented to triage.

NOTE Confidence: 0.6536875

01:06:26.160 --> 01:06:28.158 So that's the the second principle,

NOTE Confidence: 0.6536875

01:06:28.160 --> 01:06:30.036 which is these are kind of in,

NOTE Confidence: 0.6536875

01:06:30.040 --> 01:06:30.810 you know,

NOTE Confidence: 0.6536875

01:06:30.810 --> 01:06:33.120 oriented in terms of more and

NOTE Confidence: 0.6536875

01:06:33.120 --> 01:06:34.880 more equity potentially.

NOTE Confidence: 0.6536875

01:06:34.880 --> 01:06:38.190 So how do you debias the score that's biased

NOTE Confidence: 0.6536875

01:06:38.190 --> 01:06:40.320 against a particular racial ethnic group?

NOTE Confidence: 0.6536875

01:06:40.320 --> 01:06:43.902 Well it turns out that using race

NOTE Confidence: 0.6536875

01:06:43.902 --> 01:06:47.012 ethnicity directly to fix SOFA

NOTE Confidence: 0.6536875

01:06:47.012 --> 01:06:50.040 like -1 if the person's black for

NOTE Confidence: 0.6536875

01:06:50.040 --> 01:06:52.145 example to sort of correct the

NOTE Confidence: 0.6536875

01:06:52.145 --> 01:06:54.480 bias I described earlier is very

NOTE Confidence: 0.6536875

01:06:54.480 --> 01:06:56.716 challenging for multiple dimensions.

NOTE Confidence: 0.6536875

01:06:56.720 --> 01:06:59.120 The state of Minnesota tried to do this.

NOTE Confidence: 0.6536875

01:06:59.120 --> 01:07:01.472 They they ran a regression model and

NOTE Confidence: 0.6536875

01:07:01.472 --> 01:07:03.947 they put all the clinical variables

NOTE Confidence: 0.6536875

01:07:03.947 --> 01:07:06.692 including H for probability of death

NOTE Confidence: 0.6536875

01:07:06.692 --> 01:07:08.988 from COVID-19 and and they also

NOTE Confidence: 0.6536875

01:07:08.988 --> 01:07:11.600 included a term for that was Bipoc.

NOTE Confidence: 0.6536875

01:07:11.600 --> 01:07:12.816 So basically non white.

NOTE Confidence: 0.6536875

01:07:12.816 --> 01:07:14.640 Anybody who identified as non white

NOTE Confidence: 0.6536875

01:07:14.640 --> 01:07:17.440 and that term statistically and

NOTE Confidence: 0.6536875

01:07:17.440 --> 01:07:19.152 independently predicted COVID-19

NOTE Confidence: 0.6536875

01:07:19.152 --> 01:07:21.520 mortality because it's capturing,

NOTE Confidence: 0.6536875

01:07:21.520 --> 01:07:23.320 even though it's a social construct,

NOTE Confidence: 0.6536875

01:07:23.320 --> 01:07:25.532 correlated with other unmeasured

NOTE Confidence: 0.6536875

01:07:25.532 --> 01:07:26.638 clinical variables.

NOTE Confidence: 0.6536875

01:07:26.640 --> 01:07:28.796 So they put that into their score.

NOTE Confidence: 0.6536875

01:07:28.800 --> 01:07:31.232 If you were, you're the same person,

NOTE Confidence: 0.6536875

01:07:31.232 --> 01:07:33.230 the same age, same medical comorbidities.

NOTE Confidence: 0.6536875

01:07:33.230 --> 01:07:35.080 If you identified as Bipoc,

NOTE Confidence: 0.6536875

01:07:35.080 --> 01:07:37.362 you'd be more likely to get monoclonal

NOTE Confidence: 0.6536875

01:07:37.362 --> 01:07:39.160 antibody treatment if you got COVID.

NOTE Confidence: 0.6536875

01:07:39.160 --> 01:07:41.305 This of course was grossly

NOTE Confidence: 0.6536875

01:07:41.305 --> 01:07:43.021 misinterpreted by certain people

NOTE Confidence: 0.6536875

01:07:43.021 --> 01:07:45.637 and manipulated for political gain.

NOTE Confidence: 0.6536875

01:07:45.640 --> 01:07:48.520 That's a completely erroneous statement.

NOTE Confidence: 0.6536875

01:07:48.520 --> 01:07:49.906 But this is the political challenge

NOTE Confidence: 0.6536875

01:07:49.906 --> 01:07:51.917 that we have to deal with these people.

NOTE Confidence: 0.6536875

01:07:51.920 --> 01:07:53.985 There are people like that in our

NOTE Confidence: 0.6536875

01:07:53.985 --> 01:07:55.838 country that we have to handle.

NOTE Confidence: 0.6536875

01:07:55.840 --> 01:07:59.398 And also from a constitutional perspective,

NOTE Confidence: 0.6536875

01:07:59.400 --> 01:08:01.620 with the recent affirmative action

NOTE Confidence: 0.6536875

01:08:01.620 --> 01:08:03.840 decision explicitly using someone's race,

NOTE Confidence: 0.6536875

01:08:03.840 --> 01:08:06.224 it's like one of, you know the in

NOTE Confidence: 0.6536875

01:08:06.224 --> 01:08:08.320 in general to allocate anything,

NOTE Confidence: 0.6536875

01:08:08.320 --> 01:08:10.276 maybe run, it's a legal challenge.

NOTE Confidence: 0.6536875

01:08:10.280 --> 01:08:11.170 And finally,

NOTE Confidence: 0.6536875

01:08:11.170 --> 01:08:13.395 there's the practical one where,

NOTE Confidence: 0.6536875

01:08:13.400 --> 01:08:15.176 you know, if it's like you're

NOTE Confidence: 0.6536875

01:08:15.176 --> 01:08:16.360 trying to give ventilators,

NOTE Confidence: 0.6536875

01:08:16.360 --> 01:08:18.418 and if somebody who looks to your

NOTE Confidence: 0.6536875

01:08:18.418 --> 01:08:20.718 eye that you would racialize them,

NOTE Confidence: 0.6536875

01:08:20.720 --> 01:08:21.839 as White says,

NOTE Confidence: 0.6536875

01:08:21.839 --> 01:08:22.212 oh,

NOTE Confidence: 0.6536875

01:08:22.212 --> 01:08:24.135 I'm black and I know your score

NOTE Confidence: 0.6536875

01:08:24.135 --> 01:08:25.075 gives me higher priority,

NOTE Confidence: 0.6536875

01:08:25.080 --> 01:08:26.620 How do you handle that 'cause this

NOTE Confidence: 0.6536875

01:08:26.620 --> 01:08:28.278 is a life or death situation.

NOTE Confidence: 0.6536875

01:08:28.280 --> 01:08:31.200 And I think that practical issue

NOTE Confidence: 0.6536875

01:08:31.200 --> 01:08:33.120 of are you actually counting on

NOTE Confidence: 0.6536875

01:08:33.120 --> 01:08:35.036 triage teams to racialize people

NOTE Confidence: 0.6536875

01:08:35.036 --> 01:08:37.276 and to socially constructed groups,

NOTE Confidence: 0.6536875

01:08:37.280 --> 01:08:39.880 that seems very problematic.

NOTE Confidence: 0.6536875

01:08:39.880 --> 01:08:43.280 So how do we get it on 'cause we have

NOTE Confidence: 0.52647996

01:08:43.376 --> 01:08:44.622 to one the what?

NOTE Confidence: 0.52647996

01:08:44.622 --> 01:08:46.366 What people have done is

NOTE Confidence: 0.52647996

01:08:46.366 --> 01:08:47.996 just modify the sofa score.

NOTE Confidence: 0.52647996

01:08:48.000 --> 01:08:49.560 That's what state of Colorado's done.

NOTE Confidence: 0.52647996

01:08:49.560 --> 01:08:51.716 So get rid of the renal component.

NOTE Confidence: 0.52647996

01:08:51.720 --> 01:08:53.771 I think it's best to just throw

NOTE Confidence: 0.52647996

01:08:53.771 --> 01:08:56.144 it out all together and come up

NOTE Confidence: 0.52647996

01:08:56.144 --> 01:08:58.160 with a new score that perhaps much

NOTE Confidence: 0.52647996

01:08:58.225 --> 01:09:00.480 better captures acute renal failure.

NOTE Confidence: 0.52647996

01:09:00.480 --> 01:09:02.440 It's the extent that we can measure

NOTE Confidence: 0.52647996

01:09:02.440 --> 01:09:03.962 them in triage scenario compared

NOTE Confidence: 0.52647996

01:09:03.962 --> 01:09:06.153 to this score which rolls in acute

NOTE Confidence: 0.52647996

01:09:06.153 --> 01:09:08.036 and chronic renal failure together.

NOTE Confidence: 0.52647996

01:09:08.036 --> 01:09:11.359 But in the pulmonary data for the the grant,

NOTE Confidence: 0.52647996

01:09:11.360 --> 01:09:12.236 which I think I took out,

NOTE Confidence: 0.52647996

01:09:12.240 --> 01:09:14.160 'cause I have way too many slides already,

NOTE Confidence: 0.52647996

01:09:14.160 --> 01:09:16.240 we used area deprivation index,

NOTE Confidence: 0.52647996

01:09:16.240 --> 01:09:17.360 which I'll talk about in a second,

NOTE Confidence: 0.52647996

01:09:17.360 --> 01:09:19.761 where someone lives as a way to

NOTE Confidence: 0.52647996

01:09:19.761 --> 01:09:22.274 achieve the outcome that Minnesota was

NOTE Confidence: 0.52647996

01:09:22.274 --> 01:09:24.629 going for without explicitly using

NOTE Confidence: 0.52647996

01:09:24.629 --> 01:09:26.919 someone's racial or ethnic identity.

NOTE Confidence: 0.80365217

01:09:29.440 --> 01:09:31.620 So the next idea,

NOTE Confidence: 0.80365217

01:09:31.620 --> 01:09:33.800 aside from non discrimination,

NOTE Confidence: 0.80365217

01:09:33.800 --> 01:09:37.376 is to actually look at that map and say like,

NOTE Confidence: 0.80365217

01:09:37.376 --> 01:09:39.560 can we even the playing field here,

NOTE Confidence: 0.80365217

01:09:39.560 --> 01:09:41.044 right? Can we spread?

NOTE Confidence: 0.80365217

01:09:41.044 --> 01:09:45.190 Can we mitigate the severe inequity of the

NOTE Confidence: 0.80365217

01:09:45.190 --> 01:09:48.350 pandemic by how we're allocating scarce

NOTE Confidence: 0.80365217

01:09:48.350 --> 01:09:51.920 life support treatments, and should we?

NOTE Confidence: 0.80365217

01:09:51.920 --> 01:09:53.719 There's tools, objective tools to do this.

NOTE Confidence: 0.80365217

01:09:53.720 --> 01:09:56.564 This is the area of deformation

NOTE Confidence: 0.80365217

01:09:56.564 --> 01:09:59.456 index as you see this map of Chicago.

NOTE Confidence: 0.80365217

01:09:59.456 --> 01:10:02.140 I don't know, I didn't explain that.

NOTE Confidence: 0.80365217

01:10:02.140 --> 01:10:03.840 This is where Druryville,

NOTE Confidence: 0.80365217

01:10:03.840 --> 01:10:05.215 it's like the wealthiest area

NOTE Confidence: 0.80365217

01:10:05.215 --> 01:10:06.920 city is right by Navy Pier.

NOTE Confidence: 0.80365217

01:10:06.920 --> 01:10:10.079 This is like a park like way very wealthy.

NOTE Confidence: 0.80365217

01:10:10.080 --> 01:10:13.112 Here's Hyde Park sort of an island that's

NOTE Confidence: 0.80365217

01:10:13.112 --> 01:10:15.919 where Chicago is wealth and privilege.

NOTE Confidence: 0.80365217

01:10:15.920 --> 01:10:18.040 And then here's the South and West side

NOTE Confidence: 0.80365217

01:10:18.040 --> 01:10:19.200 structured disadvantaged neighborhoods,

NOTE Confidence: 0.80365217

01:10:19.200 --> 01:10:19.489 right.

NOTE Confidence: 0.80365217

01:10:19.489 --> 01:10:20.356 So the homeowner,

NOTE Confidence: 0.80365217

01:10:20.356 --> 01:10:22.918 you can sort of see in that homeowner

NOTE Confidence: 0.80365217

01:10:22.918 --> 01:10:24.823 or the mapping inequality website

NOTE Confidence: 0.80365217

01:10:24.823 --> 01:10:26.960 how Hyde Park was constructed

NOTE Confidence: 0.80365217

01:10:26.960 --> 01:10:29.245 literally by the federal government

NOTE Confidence: 0.80365217

01:10:29.245 --> 01:10:31.876 to be to be blue on this map.

NOTE Confidence: 0.80365217

01:10:31.880 --> 01:10:33.032 And so you can,

NOTE Confidence: 0.80365217

01:10:33.032 --> 01:10:34.760 you can take someone's home address,

NOTE Confidence: 0.80365217

01:10:34.760 --> 01:10:37.680 map it to this area of information index.

NOTE Confidence: 0.80365217

01:10:37.680 --> 01:10:39.396 And what people like Doug White

NOTE Confidence: 0.80365217

01:10:39.400 --> 01:10:41.986 have suggested is that you literally

NOTE Confidence: 0.80365217

01:10:41.986 --> 01:10:43.824 would subtract points because

NOTE Confidence: 0.80365217

01:10:43.824 --> 01:10:46.503 they're coming from a structurally

NOTE Confidence: 0.80365217

01:10:46.503 --> 01:10:47.509 disadvantaged neighbourhood.

NOTE Confidence: 0.80365217

01:10:47.509 --> 01:10:51.030 And the idea is that we're trying

NOTE Confidence: 0.80365217

01:10:51.106 --> 01:10:52.820 to correct the structural inequity

NOTE Confidence: 0.80365217

01:10:52.820 --> 01:10:54.795 in the present day crisis.

NOTE Confidence: 0.80365217

01:10:54.800 --> 01:10:56.970 We recognize that things are way worse

NOTE Confidence: 0.80365217

01:10:56.970 --> 01:10:58.560 for certain communities than others.

NOTE Confidence: 0.80365217

01:10:58.560 --> 01:11:01.360 And we're taking one point off for that.

NOTE Confidence: 0.80365217

01:11:01.360 --> 01:11:03.768 And it turns out that there's an

NOTE Confidence: 0.80365217

01:11:03.768 --> 01:11:05.160 implicit ethical happening here,

NOTE Confidence: 0.80365217

01:11:05.160 --> 01:11:06.064 which is, you know,

NOTE Confidence: 0.80365217

01:11:06.064 --> 01:11:07.760 not really argued for in the paper.

NOTE Confidence: 0.80365217

01:11:07.760 --> 01:11:09.338 But correcting this,

NOTE Confidence: 0.80365217

01:11:09.338 --> 01:11:10.916 correcting that map,

NOTE Confidence: 0.80365217

01:11:10.920 --> 01:11:12.804 making it the spreading the burden

NOTE Confidence: 0.80365217

01:11:12.804 --> 01:11:15.058 of COVID around is about 1/4 of

NOTE Confidence: 0.80365217

01:11:15.058 --> 01:11:16.918 as important as saving most lives,

NOTE Confidence: 0.80365217

01:11:16.920 --> 01:11:17.840 which I think is interesting.

NOTE Confidence: 0.80365217

01:11:17.840 --> 01:11:20.176 This is an example where one of these

NOTE Confidence: 0.80365217

01:11:20.176 --> 01:11:22.479 protocols can reveal the underlying ethics.

NOTE Confidence: 0.80365217

01:11:22.480 --> 01:11:24.330 Here's the narrative description they

NOTE Confidence: 0.80365217

01:11:24.330 --> 01:11:27.413 use in the paper about how sofa based

NOTE Confidence: 0.80365217

01:11:27.413 --> 01:11:29.753 only system would prioritize this patient.

NOTE Confidence: 0.80365217

01:11:29.760 --> 01:11:33.346 The second patient will be prioritized

NOTE Confidence: 0.80365217

01:11:33.346 --> 01:11:35.600 in their novel system and they,

NOTE Confidence: 0.80365217

01:11:35.600 --> 01:11:36.320 you know,

NOTE Confidence: 0.80365217

01:11:36.320 --> 01:11:39.679 hand kudos to Doug White and and Pittsburgh.

NOTE Confidence: 0.80365217

01:11:39.680 --> 01:11:41.878 They actually did this when they were

NOTE Confidence: 0.80365217

01:11:41.878 --> 01:11:43.400 allocating their monoclonal antibodies.

NOTE Confidence: 0.80365217

01:11:43.400 --> 01:11:45.554 They got around that problem with

NOTE Confidence: 0.80365217

01:11:45.554 --> 01:11:48.313 you can't use race and ethnicity and

NOTE Confidence: 0.80365217

01:11:48.313 --> 01:11:52.440 they actually used where someone was,

NOTE Confidence: 0.80365217

01:11:52.440 --> 01:11:53.400 where someone lived.

NOTE Confidence: 0.80365217

01:11:53.400 --> 01:11:54.900 Calculate their ADI and give them

NOTE Confidence: 0.80365217

01:11:54.900 --> 01:11:56.481 twice the chance if they came

NOTE Confidence: 0.80365217

01:11:56.481 --> 01:11:57.796 from a high ADI neighborhood.

NOTE Confidence: 0.80365217

01:11:57.800 --> 01:12:00.096 And that led to higher rates of allocation

NOTE Confidence: 0.80365217

01:12:00.096 --> 01:12:02.000 than people who identified as black,

NOTE Confidence: 0.80365217

01:12:02.000 --> 01:12:04.520 which was their goal.

NOTE Confidence: 0.80365217

01:12:04.520 --> 01:12:06.751 So why?

NOTE Confidence: 0.80365217

01:12:06.751 --> 01:12:07.995 What are the potential

NOTE Confidence: 0.80365217

01:12:07.995 --> 01:12:09.239 criticisms of this approach?

NOTE Confidence: 0.80365217

01:12:09.240 --> 01:12:10.506 Well, you know,

NOTE Confidence: 0.80365217

01:12:10.506 --> 01:12:12.194 there's you're using these

NOTE Confidence: 0.80365217

01:12:12.194 --> 01:12:13.038 narrative descriptions.

NOTE Confidence: 0.80365217

01:12:13.040 --> 01:12:14.400 They didn't like the thesis.

NOTE Confidence: 0.80365217

01:12:14.400 --> 01:12:14.682 Hickett,

NOTE Confidence: 0.80365217

01:12:14.682 --> 01:12:16.092 Hickett handling 2 guys who

NOTE Confidence: 0.80365217

01:12:16.092 --> 01:12:17.576 were involved with the National

NOTE Confidence: 0.80365217

01:12:17.576 --> 01:12:19.314 Academy of Medicine and you know,

NOTE Confidence: 0.80365217

01:12:19.314 --> 01:12:21.113 defining what crisis standards of care were,

NOTE Confidence: 0.80365217

01:12:21.120 --> 01:12:22.280 they really didn't like the

NOTE Confidence: 0.80365217

01:12:22.280 --> 01:12:23.440 narrative description of the patient,

NOTE Confidence: 0.80365217

01:12:23.440 --> 01:12:23.780 right.

NOTE Confidence: 0.80365217

01:12:23.780 --> 01:12:25.480 You're making one patient really

NOTE Confidence: 0.80365217

01:12:25.480 --> 01:12:27.169 appealing based on like being

NOTE Confidence: 0.80365217

01:12:27.169 --> 01:12:29.059 a bus driver or whatever it was

NOTE Confidence: 0.80365217

01:12:29.059 --> 01:12:30.609 an essential worker and another

NOTE Confidence: 0.80365217

01:12:30.609 --> 01:12:32.517 person you're really painting as a

NOTE Confidence: 0.43432292

01:12:32.520 --> 01:12:33.927 7 year old who's had been able

NOTE Confidence: 0.43432292

01:12:33.927 --> 01:12:35.079 to live their whole life.

NOTE Confidence: 0.43432292

01:12:35.080 --> 01:12:37.432 They're kind of like bleeding and

NOTE Confidence: 0.43432292

01:12:37.432 --> 01:12:39.864 fair innings there too. And of course,

NOTE Confidence: 0.43432292

01:12:39.864 --> 01:12:41.880 the triage team is not supposed to,

NOTE Confidence: 0.43432292

01:12:41.880 --> 01:12:43.410 you know, think about those

NOTE Confidence: 0.43432292

01:12:43.410 --> 01:12:44.976 social factors in triage, right.

NOTE Confidence: 0.43432292

01:12:44.976 --> 01:12:46.656 And that's what's the thrust

NOTE Confidence: 0.43432292

01:12:46.656 --> 01:12:48.000 of their main argument.

NOTE Confidence: 0.43432292

01:12:48.000 --> 01:12:49.856 They also talk about ADI not being granular

NOTE Confidence: 0.43432292

01:12:49.856 --> 01:12:51.598 enough to identify with disadvantaged.

NOTE Confidence: 0.43432292

01:12:51.600 --> 01:12:54.152 So one story about this is we very

NOTE Confidence: 0.43432292

01:12:54.152 --> 01:12:55.516 explicitly allocated our vaccine

NOTE Confidence: 0.43432292

01:12:55.516 --> 01:12:57.514 to our primary service area first,

NOTE Confidence: 0.43432292

01:12:57.520 --> 01:12:59.440 like around the University of Chicago.

NOTE Confidence: 0.43432292

01:12:59.440 --> 01:13:01.848 And so that meant our wealthier patients who

NOTE Confidence: 0.43432292

01:13:01.848 --> 01:13:04.520 live in the suburbs had to wait their turn.

NOTE Confidence: 0.43432292

01:13:04.520 --> 01:13:05.720 And that's not something

NOTE Confidence: 0.43432292

01:13:05.720 --> 01:13:06.920 they're used to doing.

NOTE Confidence: 0.43432292

01:13:06.920 --> 01:13:09.280 So once they found out the allocation system,

NOTE Confidence: 0.43432292

01:13:09.280 --> 01:13:10.060 they say, well,

NOTE Confidence: 0.43432292

01:13:10.060 --> 01:13:11.696 if I buy an apartment in Inglewood,

NOTE Confidence: 0.43432292

01:13:11.696 --> 01:13:12.980 which is one of the nearby

NOTE Confidence: 0.43432292

01:13:13.026 --> 01:13:14.200 disadvantaged neighbourhoods,

NOTE Confidence: 0.43432292

01:13:14.200 --> 01:13:16.000 can I get them by vaccine?

NOTE Confidence: 0.43432292

01:13:16.000 --> 01:13:19.272 So not a lot of them are really

NOTE Confidence: 0.43432292

01:13:19.272 --> 01:13:21.828 nice people who care about such.

NOTE Confidence: 0.43432292

01:13:21.828 --> 01:13:23.368 I don't describe all of

NOTE Confidence: 0.43432292

01:13:23.368 --> 01:13:24.472 our our patients that way,

NOTE Confidence: 0.43432292

01:13:24.472 --> 01:13:25.660 but you know of course the

NOTE Confidence: 0.43432292

01:13:25.706 --> 01:13:26.840 the bad apples and the ones,

NOTE Confidence: 0.43432292

01:13:26.840 --> 01:13:29.040 the emails that you remember

NOTE Confidence: 0.43432292

01:13:29.040 --> 01:13:31.240 and so we said no,

NOTE Confidence: 0.43432292

01:13:31.240 --> 01:13:32.955 you have to just stay in your

NOTE Confidence: 0.43432292

01:13:32.960 --> 01:13:34.773 stay in your house for one more

NOTE Confidence: 0.43432292

01:13:34.773 --> 01:13:35.999 week and you'll get it.

NOTE Confidence: 0.43432292

01:13:36.000 --> 01:13:38.322 So you know but I think in in practice

NOTE Confidence: 0.43432292

01:13:38.322 --> 01:13:40.036 aside from those extreme examples

NOTE Confidence: 0.43432292

01:13:40.036 --> 01:13:42.118 it would be it's very granular.

NOTE Confidence: 0.43432292

01:13:42.120 --> 01:13:43.751 This is a census block like you

NOTE Confidence: 0.43432292

01:13:43.751 --> 01:13:45.201 could look around you should play

NOTE Confidence: 0.43432292

01:13:45.201 --> 01:13:46.832 go on the website and look around

NOTE Confidence: 0.43432292

01:13:46.883 --> 01:13:48.365 and you can you know neighborhoods

NOTE Confidence: 0.43432292

01:13:48.365 --> 01:13:49.635 that you know are systematically

NOTE Confidence: 0.43432292

01:13:49.635 --> 01:13:51.560 worse off will be red on there.

NOTE Confidence: 0.43432292

01:13:51.560 --> 01:13:53.318 It's pretty good.

NOTE Confidence: 0.43432292

01:13:53.320 --> 01:13:55.792 And there's always this possibility of

NOTE Confidence: 0.43432292

01:13:55.792 --> 01:13:57.935 introducing social factors in triage

NOTE Confidence: 0.43432292

01:13:57.935 --> 01:13:59.655 of unintended consequences downstream

NOTE Confidence: 0.43432292

01:13:59.655 --> 01:14:02.600 the facts that you haven't anticipated.

NOTE Confidence: 0.43432292

01:14:02.600 --> 01:14:05.400 So these guys are OK with allocating

NOTE Confidence: 0.43432292

01:14:05.400 --> 01:14:07.042 vaccine and preventative medications

NOTE Confidence: 0.43432292

01:14:07.042 --> 01:14:09.526 based on error deprivation index or

NOTE Confidence: 0.43432292

01:14:09.526 --> 01:14:12.361 where someone lives as a way to address

NOTE Confidence: 0.43432292

01:14:12.361 --> 01:14:14.439 structural inequity but not life support.

NOTE Confidence: 0.43432292

01:14:14.440 --> 01:14:16.040 So here's what people think.

NOTE Confidence: 0.43432292

01:14:16.040 --> 01:14:17.186 And then finally,

NOTE Confidence: 0.43432292

01:14:17.186 --> 01:14:19.478 I think the the last idea,

NOTE Confidence: 0.43432292

01:14:19.480 --> 01:14:21.544 which is perhaps the most controversial

NOTE Confidence: 0.43432292

01:14:21.544 --> 01:14:24.603 and often is the criticism of efforts to

NOTE Confidence: 0.43432292

01:14:24.603 --> 01:14:27.033 correct the present day structural equity,

NOTE Confidence: 0.43432292

01:14:27.040 --> 01:14:28.958 is that you're really trying to correct,

NOTE Confidence: 0.43432292

01:14:28.960 --> 01:14:29.956 like, you know,

NOTE Confidence: 0.43432292

01:14:29.956 --> 01:14:31.948 hundreds of years of wrongs on

NOTE Confidence: 0.43432292

01:14:31.948 --> 01:14:33.879 a particular population.

NOTE Confidence: 0.43432292

01:14:33.880 --> 01:14:36.280 And is that really the best place to do that?

NOTE Confidence: 0.43432292

01:14:36.280 --> 01:14:38.445 And so that's the criticism

NOTE Confidence: 0.43432292

01:14:38.445 --> 01:14:40.335 of a reparations argument.

NOTE Confidence: 0.43432292

01:14:40.335 --> 01:14:43.730 But it's distinct from trying to make

NOTE Confidence: 0.43432292

01:14:43.815 --> 01:14:46.916 things more fair in the current crisis,

NOTE Confidence: 0.43432292

01:14:46.920 --> 01:14:49.480 if that makes sense.

NOTE Confidence: 0.43432292

01:14:49.480 --> 01:14:50.960 All right, So with that,

NOTE Confidence: 0.43432292

01:14:50.960 --> 01:14:52.960 I want to make sure we have some,

NOTE Confidence: 0.43432292

01:14:52.960 --> 01:14:54.715 some at least 10 minutes

NOTE Confidence: 0.43432292

01:14:54.715 --> 01:14:56.119 for discussion on this.

NOTE Confidence: 0.43432292

01:14:56.120 --> 01:14:59.170 Or maybe I can, I can just,

NOTE Confidence: 0.43432292

01:14:59.170 --> 01:15:01.784 why don't I just keep talking and we'll and

NOTE Confidence: 0.43432292

01:15:01.784 --> 01:15:04.073 we'll talk about the last two together.

NOTE Confidence: 0.43432292

01:15:04.080 --> 01:15:05.400 Because I always,

NOTE Confidence: 0.43432292

01:15:05.400 --> 01:15:06.780 never, never this one.

NOTE Confidence: 0.43432292

01:15:06.780 --> 01:15:09.040 And I think this is the perhaps

NOTE Confidence: 0.43432292

01:15:09.040 --> 01:15:10.560 the approximate.

NOTE Confidence: 0.43432292

01:15:10.560 --> 01:15:11.588 You know,

NOTE Confidence: 0.43432292

01:15:11.588 --> 01:15:14.410 the Bob Trude wrote this article

NOTE Confidence: 0.43432292

01:15:14.410 --> 01:15:15.910 in the Hastings report very early

NOTE Confidence: 0.43432292

01:15:15.910 --> 01:15:17.591 on the pandemic and pointed out

NOTE Confidence: 0.43432292

01:15:17.591 --> 01:15:19.061 that essentially all the thought

NOTE Confidence: 0.43432292

01:15:19.061 --> 01:15:19.649 experiments people

NOTE Confidence: 0.47515076

01:15:19.697 --> 01:15:21.155 were using were incorrect, right.

NOTE Confidence: 0.47515076

01:15:21.155 --> 01:15:23.045 The way a pandemic would work

NOTE Confidence: 0.47515076

01:15:23.045 --> 01:15:25.238 is that the ICU would fill up,

NOTE Confidence: 0.47515076

01:15:25.240 --> 01:15:27.354 then a new patient would show up,

NOTE Confidence: 0.47515076

01:15:27.360 --> 01:15:28.608 be in respiratory failure,

NOTE Confidence: 0.47515076

01:15:28.608 --> 01:15:30.902 and your decision would be to treat

NOTE Confidence: 0.47515076

01:15:30.902 --> 01:15:33.044 that person and withdraw life support

NOTE Confidence: 0.47515076

01:15:33.044 --> 01:15:35.024 from someone already receiving it.

NOTE Confidence: 0.47515076

01:15:35.024 --> 01:15:36.744 You very rarely would you

NOTE Confidence: 0.47515076

01:15:36.744 --> 01:15:38.120 have this three patients,

NOTE Confidence: 0.47515076

01:15:38.120 --> 01:15:41.359 one validator and you know,

NOTE Confidence: 0.47515076

01:15:41.359 --> 01:15:43.618 this is sort of an example, right?

NOTE Confidence: 0.47515076

01:15:43.618 --> 01:15:45.682 The one thing I don't think I wrote

NOTE Confidence: 0.47515076

01:15:45.682 --> 01:15:47.650 here is that this person who's in the

NOTE Confidence: 0.47515076

01:15:47.650 --> 01:15:49.676 ICU to sit his patient in the ICU,

NOTE Confidence: 0.47515076

01:15:49.680 --> 01:15:51.664 you would know with a great much higher

NOTE Confidence: 0.47515076

01:15:51.664 --> 01:15:53.523 degree of certainty that they're what

NOTE Confidence: 0.47515076

01:15:53.523 --> 01:15:55.163 their probability of survival is

NOTE Confidence: 0.47515076

01:15:55.163 --> 01:15:57.117 than this person who just showed up.

NOTE Confidence: 0.47515076

01:15:57.120 --> 01:15:59.720 You know, you don't know much about them,

NOTE Confidence: 0.47515076

01:15:59.720 --> 01:16:02.120 that's whether they're 5050, right?

NOTE Confidence: 0.47515076

01:16:02.120 --> 01:16:05.000 Whereas where you can have a lot more

NOTE Confidence: 0.47515076

01:16:05.000 --> 01:16:07.170 confidence but I think that confidence

NOTE Confidence: 0.47515076

01:16:07.170 --> 01:16:08.980 around their survival function is

NOTE Confidence: 0.47515076

01:16:09.046 --> 01:16:11.760 much smaller and this is way so.

NOTE Confidence: 0.47515076

01:16:11.760 --> 01:16:14.598 Despite these crisis standards of care

NOTE Confidence: 0.47515076

01:16:14.598 --> 01:16:16.803 being enormously long documents full

NOTE Confidence: 0.47515076

01:16:16.803 --> 01:16:18.558 of they're very hard to parse through.

NOTE Confidence: 0.47515076

01:16:18.560 --> 01:16:20.144 Almost none of them like really

NOTE Confidence: 0.47515076

01:16:20.144 --> 01:16:21.984 get into the weeds on this except

NOTE Confidence: 0.47515076

01:16:21.984 --> 01:16:24.082 for the New York plan which has an

NOTE Confidence: 0.47515076

01:16:24.082 --> 01:16:25.797 incredibly strict sofa based system.

NOTE Confidence: 0.47515076

01:16:25.800 --> 01:16:28.719 Like if your sofa doesn't go down,

NOTE Confidence: 0.47515076

01:16:28.720 --> 01:16:29.564 ventilator's out,

NOTE Confidence: 0.47515076

01:16:29.564 --> 01:16:32.518 so that's not been tested or validated.

NOTE Confidence: 0.47515076

01:16:32.520 --> 01:16:34.782 Whereas Maryland would have a very

NOTE Confidence: 0.47515076

01:16:34.782 --> 01:16:37.090 high barrier to withdraw off the

NOTE Confidence: 0.47515076

01:16:37.090 --> 01:16:38.915 the patient surrogates like said

NOTE Confidence: 0.47515076

01:16:38.920 --> 01:16:40.320 they don't withdraw life support,

NOTE Confidence: 0.47515076

01:16:40.320 --> 01:16:42.560 then they would have this chance to appeal,

NOTE Confidence: 0.47515076

01:16:42.560 --> 01:16:45.230 which of course would probably undermine

NOTE Confidence: 0.47515076

01:16:45.230 --> 01:16:47.680 any active reallocation in practice.

NOTE Confidence: 0.47515076

01:16:47.680 --> 01:16:49.759 So what we're doing in the grant

NOTE Confidence: 0.47515076

01:16:49.759 --> 01:16:51.758 is actually building a simulation

NOTE Confidence: 0.47515076

01:16:51.758 --> 01:16:54.190 model of sufficient complexity and

NOTE Confidence: 0.47515076

01:16:54.190 --> 01:16:57.280 depth to simulate what would happen.

NOTE Confidence: 0.47515076

01:16:57.280 --> 01:16:59.702 And one of my main hypotheses is

NOTE Confidence: 0.47515076

01:16:59.702 --> 01:17:01.920 that without some withdrawal rule,

NOTE Confidence: 0.47515076

01:17:01.920 --> 01:17:03.255 without some mechanism to remove

NOTE Confidence: 0.47515076

01:17:03.255 --> 01:17:04.590 life support and reallocate it

NOTE Confidence: 0.47515076

01:17:04.632 --> 01:17:05.480 to the waiting list,

NOTE Confidence: 0.47515076

01:17:05.480 --> 01:17:08.160 it's going to be first and first serve.

NOTE Confidence: 0.47515076

01:17:08.160 --> 01:17:11.576 So you can make this fancy triage

NOTE Confidence: 0.47515076

01:17:11.576 --> 01:17:14.080 store and it's not going to matter

NOTE Confidence: 0.47515076

01:17:14.080 --> 01:17:16.238 because it's just going to be who

NOTE Confidence: 0.47515076

01:17:16.238 --> 01:17:17.954 showed up first and then there's

NOTE Confidence: 0.47515076

01:17:17.954 --> 01:17:20.345 going to be very and with sort of

NOTE Confidence: 0.47515076

01:17:20.345 --> 01:17:21.920 randomness as people die if there's

NOTE Confidence: 0.47515076

01:17:21.920 --> 01:17:23.120 an available event when you arrive.

NOTE Confidence: 0.91769886

01:17:26.720 --> 01:17:30.880 All right. So with that,

NOTE Confidence: 0.91769886

01:17:30.880 --> 01:17:32.692 let's we can spend the rest

NOTE Confidence: 0.91769886

01:17:32.692 --> 01:17:34.306 of the time on discussion.

NOTE Confidence: 0.91769886

01:17:34.306 --> 01:17:36.161 These are my big conclusions.

NOTE Confidence: 0.91769886

01:17:36.161 --> 01:17:38.807 I think life support triage protocols

NOTE Confidence: 0.91769886

01:17:38.807 --> 01:17:41.718 across the US remain poorly defined.

NOTE Confidence: 0.91769886

01:17:41.720 --> 01:17:44.080 Well, the practical ethical perspective

NOTE Confidence: 0.91769886

01:17:44.080 --> 01:17:46.036 get rid of sofa triage scores,

NOTE Confidence: 0.91769886

01:17:46.040 --> 01:17:47.880 to use age, but only with the intention

NOTE Confidence: 0.91769886

01:17:47.880 --> 01:17:49.756 of saving more lives in the short term,

NOTE Confidence: 0.91769886

01:17:49.760 --> 01:17:51.596 just like we did for vaccines.

NOTE Confidence: 0.91769886

01:17:51.600 --> 01:17:53.917 Not not necessarily for any fair innings

NOTE Confidence: 0.91769886

01:17:53.917 --> 01:17:55.324 purpose and structural inequities

NOTE Confidence: 0.91769886

01:17:55.324 --> 01:17:57.119 need to be directly addressed,

NOTE Confidence: 0.91769886

01:17:57.120 --> 01:17:59.286 but exactly what the correction link

NOTE Confidence: 0.91769886

01:17:59.286 --> 01:18:01.591 should be needs to be determined

NOTE Confidence: 0.91769886

01:18:01.591 --> 01:18:03.955 and then withdraw of life support.

NOTE Confidence: 0.91769886

01:18:03.960 --> 01:18:05.780 Maybe the critical triage process

NOTE Confidence: 0.91769886

01:18:05.780 --> 01:18:07.236 should not be ignored.

NOTE Confidence: 0.91769886

01:18:07.240 --> 01:18:08.476 And before we go to questions,

NOTE Confidence: 0.91769886

01:18:08.480 --> 01:18:11.048 I just want to thank you to all

NOTE Confidence: 0.91769886

01:18:11.048 --> 01:18:12.559 my collaborators and mentors.

NOTE Confidence: 0.91769886

01:18:12.560 --> 01:18:12.966 You know,

NOTE Confidence: 0.91769886

01:18:12.966 --> 01:18:13.981 Govind's like this guy whose

NOTE Confidence: 0.91769886

01:18:13.981 --> 01:18:15.061 papers who've been reading forever

NOTE Confidence: 0.91769886

01:18:15.061 --> 01:18:15.917 and then he finally,

NOTE Confidence: 0.91769886

01:18:15.920 --> 01:18:17.513 he's a real person and will talk to you,

NOTE Confidence: 0.91769886

01:18:17.520 --> 01:18:19.800 which was like an incredible experience.

NOTE Confidence: 0.91769886

01:18:19.800 --> 01:18:22.072 And then Monica Pete,

NOTE Confidence: 0.91769886

01:18:22.072 --> 01:18:25.205 who's a HealthEquity scholar and my

NOTE Confidence: 0.91769886

01:18:25.205 --> 01:18:27.280 main mentor for all of this work.

NOTE Confidence: 0.91769886

01:18:27.280 --> 01:18:29.555 And Robert Gibbons is my PhD advisor

NOTE Confidence: 0.91769886

01:18:29.555 --> 01:18:31.647 and Elvis Long and a simulation

NOTE Confidence: 0.91769886

01:18:31.647 --> 01:18:33.136 model expert at the University

NOTE Confidence: 0.91769886

01:18:33.136 --> 01:18:34.840 of Chicago who's my KO8 mentor.

NOTE Confidence: 0.91769886

01:18:34.840 --> 01:18:35.120 So

NOTE Confidence: 0.29916894

01:18:39.650 --> 01:18:42.236 yeah, QR code is my, it's my Google

NOTE Confidence: 0.29916894

01:18:42.236 --> 01:18:43.568 stock page if it's not broken.

NOTE Confidence: 0.29916894

01:18:43.570 --> 01:18:44.946 So you can see some of the other

NOTE Confidence: 0.29916894

01:18:44.946 --> 01:18:46.140 things they've written and thank you.

NOTE Confidence: 0.29916894

01:18:46.140 --> 01:18:47.165 Let's let's talk for them.

NOTE Confidence: 0.29916894

01:18:50.770 --> 01:18:52.650 That was that was fantastic.

NOTE Confidence: 0.29916894

01:18:52.650 --> 01:18:55.170 I'm actually having my friend task

NOTE Confidence: 0.29916894

01:18:55.170 --> 01:18:58.089 trying to stay away a little bit.

NOTE Confidence: 0.29916894

01:18:58.090 --> 01:18:59.848 This was, this was really wonderful,

NOTE Confidence: 0.29916894

01:18:59.850 --> 01:19:01.650 you know, in terms of trying to deal

NOTE Confidence: 0.29916894

01:19:01.650 --> 01:19:03.608 with the issue of structural inequity,

NOTE Confidence: 0.29916894

01:19:03.610 --> 01:19:05.122 how to address them.

NOTE Confidence: 0.29916894

01:19:05.122 --> 01:19:06.840 I mean Mike, who's here,

NOTE Confidence: 0.29916894

01:19:06.840 --> 01:19:08.760 Mike and and you know Williams,

NOTE Confidence: 0.29916894

01:19:08.760 --> 01:19:10.158 they led the group that consisted

NOTE Confidence: 0.29916894

01:19:10.158 --> 01:19:12.118 of some of our folks who built our,

NOTE Confidence: 0.29916894

01:19:12.120 --> 01:19:14.017 our protocol as well as some members

NOTE Confidence: 0.29916894

01:19:14.017 --> 01:19:15.959 of the community all working together.

NOTE Confidence: 0.29916894

01:19:15.960 --> 01:19:17.200 Is it a fair, Stephen,

NOTE Confidence: 0.29916894

01:19:17.200 --> 01:19:19.285 Doctor Ivy that we never

NOTE Confidence: 0.29916894

01:19:19.285 --> 01:19:20.953 really cracked that nut?

NOTE Confidence: 0.29916894

01:19:20.960 --> 01:19:21.605 If you did,

NOTE Confidence: 0.29916894

01:19:21.605 --> 01:19:23.598 I would love to know what you decide.

NOTE Confidence: 0.30202827

01:19:30.360 --> 01:19:32.184 Thanks Martin. So so the health

NOTE Confidence: 0.30202827

01:19:32.184 --> 01:19:34.560 system was very concerned about the

NOTE Confidence: 0.30202827

01:19:34.560 --> 01:19:38.110 perception of the draft or public

NOTE Confidence: 0.30202827

01:19:38.110 --> 01:19:40.985 development community so it bans

NOTE Confidence: 0.30202827

01:19:40.985 --> 01:19:42.820 suggestion system and and members

NOTE Confidence: 0.30202827

01:19:42.820 --> 01:19:44.973 of the committee put together the

NOTE Confidence: 0.30202827

01:19:44.973 --> 01:19:48.468 transmitting we by members of the

NOTE Confidence: 0.30202827

01:19:48.468 --> 01:19:51.403 community like we intentionally reached

NOTE Confidence: 0.30202827

01:19:51.403 --> 01:19:54.900 out to people with local media the

NOTE Confidence: 0.30202827

01:19:54.900 --> 01:19:57.244 disabled community community staff

NOTE Confidence: 0.30202827

01:19:57.244 --> 01:19:59.638 took the New Haven but in British

NOTE Confidence: 0.30202827

01:19:59.638 --> 01:20:01.519 Portland you landed in Greenwich a

NOTE Confidence: 0.30202827

01:20:01.520 --> 01:20:03.716 number of ministers and and rabbis

NOTE Confidence: 0.30202827

01:20:03.716 --> 01:20:07.128 and you know so we really tried to

NOTE Confidence: 0.30202827

01:20:07.128 --> 01:20:09.340 intentionally reach a large number of

NOTE Confidence: 0.30202827

01:20:09.340 --> 01:20:11.760 people to break it wasn't that people

NOTE Confidence: 0.24887191

01:20:14.480 --> 01:20:17.999 but to explain what and it's not easy to

NOTE Confidence: 0.24887191

01:20:17.999 --> 01:20:20.918 explain necessarily what you're doing.

NOTE Confidence: 0.24887191

01:20:20.920 --> 01:20:22.392 To reunite people but

NOTE Confidence: 0.24887191

01:20:22.392 --> 01:20:23.960 it it seemed to go well.

NOTE Confidence: 0.24887191

01:20:23.960 --> 01:20:26.825 I I don't think we cracked the code

NOTE Confidence: 0.24887191

01:20:26.825 --> 01:20:29.440 of how to address Yeah I mean we had

NOTE Confidence: 0.24887191

01:20:29.440 --> 01:20:32.390 I had we had a similar experience

NOTE Confidence: 0.24887191

01:20:32.390 --> 01:20:35.110 presenting our trash for to our

NOTE Confidence: 0.24887191

01:20:35.110 --> 01:20:37.385 community Advisory Council for our

NOTE Confidence: 0.24887191

01:20:37.385 --> 01:20:39.515 hospital and what they were very

NOTE Confidence: 0.24887191

01:20:39.515 --> 01:20:41.880 forceful about is removing all the major.

NOTE Confidence: 0.24887191

01:20:41.880 --> 01:20:43.116 I didn't really go into this,

NOTE Confidence: 0.24887191

01:20:43.120 --> 01:20:44.660 but there were a lot of original

NOTE Confidence: 0.24887191

01:20:44.660 --> 01:20:46.500 plans that if you had major chronic

NOTE Confidence: 0.24887191

01:20:46.500 --> 01:20:48.192 conditions like you were on dialysis,

NOTE Confidence: 0.24887191

01:20:48.200 --> 01:20:50.600 that huge deprioritization and they're like,

NOTE Confidence: 0.24887191

01:20:50.600 --> 01:20:52.480 no, that's good, that's out.

NOTE Confidence: 0.24887191

01:20:52.480 --> 01:20:55.433 And so that was a very useful ex expe.

NOTE Confidence: 0.24887191

01:20:55.433 --> 01:20:56.598 Every time I presented them,

NOTE Confidence: 0.24887191

01:20:56.600 --> 01:20:57.320 I learned so much.

NOTE Confidence: 0.24887191

01:20:57.320 --> 01:20:58.760 I mean, I really do think that

NOTE Confidence: 0.24887191

01:20:58.760 --> 01:21:00.940 that should be part of what health

NOTE Confidence: 0.24887191

01:21:00.940 --> 01:21:02.240 system I think they should.

NOTE Confidence: 0.24887191

01:21:02.240 --> 01:21:04.168 But I do worry about you have these

NOTE Confidence: 0.24887191

01:21:04.168 --> 01:21:05.907 councils and groups and people leaders

NOTE Confidence: 0.24887191

01:21:05.907 --> 01:21:07.713 in the community that you collect.

NOTE Confidence: 0.24887191

01:21:07.720 --> 01:21:08.804 But it's somewhat arbitrary,

NOTE Confidence: 0.24887191

01:21:08.804 --> 01:21:11.200 like these are just people, you know,

NOTE Confidence: 0.24887191

01:21:11.200 --> 01:21:13.800 they're also usually people who

NOTE Confidence: 0.24887191

01:21:13.800 --> 01:21:15.436 are in social, socio,

NOTE Confidence: 0.24887191

01:21:15.436 --> 01:21:16.663 economic status positions

NOTE Confidence: 0.24887191

01:21:16.663 --> 01:21:18.542 that are pretty high, right.

NOTE Confidence: 0.24887191

01:21:18.542 --> 01:21:20.638 Like we have the guy who runs Howard

NOTE Confidence: 0.24887191

01:21:20.638 --> 01:21:22.719 Brown Clinic on the South side on ours.

NOTE Confidence: 0.24887191

01:21:22.720 --> 01:21:23.620 And yes,

NOTE Confidence: 0.24887191

01:21:23.620 --> 01:21:26.320 they may have the right race,

NOTE Confidence: 0.24887191

01:21:26.320 --> 01:21:26.886 ethnicity, diversity,

NOTE Confidence: 0.24887191

01:21:26.886 --> 01:21:28.584 make up that you want to

NOTE Confidence: 0.24887191

01:21:28.584 --> 01:21:29.680 represent the community,

NOTE Confidence: 0.24887191

01:21:29.680 --> 01:21:32.382 but do they really represent the socio

NOTE Confidence: 0.24887191

01:21:32.382 --> 01:21:34.440 economic spread or the community overall?

NOTE Confidence: 0.24887191

01:21:34.440 --> 01:21:35.080 You know,

NOTE Confidence: 0.24887191

01:21:35.080 --> 01:21:36.680 it's just like these groups you put together.

NOTE Confidence: 0.24887191

01:21:36.680 --> 01:21:37.590 So that's the that's the

NOTE Confidence: 0.24887191

01:21:37.590 --> 01:21:38.318 one problem with that.

NOTE Confidence: 0.24887191

01:21:38.320 --> 01:21:40.648 But I agree you for for thinking about

NOTE Confidence: 0.24887191

01:21:40.648 --> 01:21:42.600 ideas that you hadn't thought of.

NOTE Confidence: 0.24887191

01:21:42.600 --> 01:21:43.290 It's so helpful.

NOTE Confidence: 0.24887191

01:21:43.290 --> 01:21:44.440 I present all the time,

NOTE Confidence: 0.24887191

01:21:44.440 --> 01:21:44.600 although,

NOTE Confidence: 0.30047843

01:21:48.160 --> 01:21:50.440 yeah, so just a big comment if you would and

NOTE Confidence: 0.30047843

01:21:50.440 --> 01:21:52.278 then Ben will be the last common question.

NOTE Confidence: 0.30047843

01:21:52.280 --> 01:21:54.200 So it's up real quick and I'll move to Ben.

NOTE Confidence: 0.30047843

01:21:54.200 --> 01:21:56.552 Sure. It says run 4 minutes. I was 6 thirds.

NOTE Confidence: 0.30047843

01:21:56.552 --> 01:21:58.880 I think that's fast, but yeah.

NOTE Confidence: 0.30047843

01:21:58.880 --> 01:22:01.200 Yeah, please. Thank you.

NOTE Confidence: 0.30047843

01:22:01.200 --> 01:22:03.760 I I was just curious if you can describe the,

NOTE Confidence: 0.30047843

01:22:03.760 --> 01:22:06.744 the process that goes into choosing the

NOTE Confidence: 0.30047843

01:22:06.744 --> 01:22:09.960 data set used to build a regression model.

NOTE Confidence: 0.30047843

01:22:09.960 --> 01:22:12.864 Yeah, yeah. So I took all the

NOTE Confidence: 0.30047843

01:22:12.864 --> 01:22:14.323 clinical informatics slides out of

NOTE Confidence: 0.30047843

01:22:14.323 --> 01:22:15.919 here because it's an ethics talk.

NOTE Confidence: 0.30047843

01:22:15.920 --> 01:22:19.114 But we are constructing A collaborative

NOTE Confidence: 0.30047843

01:22:19.114 --> 01:22:20.998 networks from based on where my

NOTE Confidence: 0.30047843

01:22:20.998 --> 01:22:22.956 people are trained by one of my

NOTE Confidence: 0.30047843

01:22:22.956 --> 01:22:24.156 old mentors across the country,

NOTE Confidence: 0.30047843

01:22:24.160 --> 01:22:26.608 ICU doctors who like are data

NOTE Confidence: 0.30047843

01:22:26.608 --> 01:22:27.832 scientists too generally.

NOTE Confidence: 0.30047843

01:22:27.840 --> 01:22:29.376 And we're all clearing our data

NOTE Confidence: 0.30047843

01:22:29.376 --> 01:22:30.400 in the same format.

NOTE Confidence: 0.30047843

01:22:30.400 --> 01:22:32.920 So what will happen is we'll collect,

NOTE Confidence: 0.30047843

01:22:32.920 --> 01:22:35.908 we'll collect all all the observation

NOTE Confidence: 0.30047843

01:22:35.908 --> 01:22:37.900 electronic healthcare record that

NOTE Confidence: 0.30047843

01:22:37.972 --> 01:22:40.390 would be relevant for a critically

NOTE Confidence: 0.30047843

01:22:40.390 --> 01:22:42.472 I'll person and build a regression

NOTE Confidence: 0.30047843

01:22:42.472 --> 01:22:44.760 model based on the data from their

NOTE Confidence: 0.30047843

01:22:44.760 --> 01:22:47.160 like 42 hours before they start

NOTE Confidence: 0.30047843

01:22:47.160 --> 01:22:49.540 life support OR and then the first

NOTE Confidence: 0.30047843

01:22:49.540 --> 01:22:51.519 six hours afterwards with the idea

NOTE Confidence: 0.30047843

01:22:51.519 --> 01:22:53.857 that like the ER would have this

NOTE Confidence: 0.30047843

01:22:53.857 --> 01:22:55.958 temporary supply to stabilize patients.

NOTE Confidence: 0.30047843

01:22:55.960 --> 01:22:57.900 Because my hypothesis is that

NOTE Confidence: 0.30047843

01:22:57.900 --> 01:22:59.452 that would dramatically improve

NOTE Confidence: 0.30047843

01:22:59.452 --> 01:23:01.516 the accuracy of the triage car.

NOTE Confidence: 0.30047843

01:23:01.520 --> 01:23:02.479 But the nice thing is we can

NOTE Confidence: 0.30047843

01:23:02.479 --> 01:23:03.120 track both of those.

NOTE Confidence: 0.30047843

01:23:03.120 --> 01:23:06.128 And So what we're setting up with the

NOTE Confidence: 0.30047843

01:23:06.128 --> 01:23:07.310 collaborative network is like develop

NOTE Confidence: 0.30047843

01:23:07.310 --> 01:23:08.640 the data in the University of Chicago.

NOTE Confidence: 0.30047843

01:23:08.640 --> 01:23:09.873 Northwestern tested it.

NOTE Confidence: 0.30047843

01:23:09.873 --> 01:23:11.517 John Hopkins for example.

NOTE Confidence: 0.30047843

01:23:11.520 --> 01:23:12.800 We're about other collaborators

NOTE Confidence: 0.30047843

01:23:12.800 --> 01:23:14.720 and that adds a lot more.

NOTE Confidence: 0.30047843

01:23:14.720 --> 01:23:15.840 Whenever you make a model,

NOTE Confidence: 0.30047843

01:23:15.840 --> 01:23:19.720 you gotta keep your test data set separately.

NOTE Confidence: 0.30047843

01:23:19.720 --> 01:23:21.112 So that's the plan.

NOTE Confidence: 0.30047843

01:23:21.112 --> 01:23:23.320 Final question is Doctor Solch but you're

NOTE Confidence: 0.32308722

01:23:23.400 --> 01:23:25.638 just you know one with respect

NOTE Confidence: 0.32308722

01:23:25.638 --> 01:23:27.920 to the the community for the

NOTE Confidence: 0.32308722

01:23:27.920 --> 01:23:29.560 the night measures we actually

NOTE Confidence: 0.27695724

01:23:31.720 --> 01:23:33.600 sort of presented to them the

NOTE Confidence: 0.27695724

01:23:33.600 --> 01:23:35.400 possibility of using the area

NOTE Confidence: 0.27695724

01:23:35.400 --> 01:23:37.080 deprivation index as a modifier

NOTE Confidence: 0.27695724

01:23:37.480 --> 01:23:39.073 of. So that's where we were at the time

NOTE Confidence: 0.27695724

01:23:39.560 --> 01:23:42.812 and they we're we're not enthusiastic

NOTE Confidence: 0.27695724

01:23:42.812 --> 01:23:45.250 about that and and the more I thought

NOTE Confidence: 0.27695724

01:23:45.250 --> 01:23:47.151 about it the less enthusiastic I've

NOTE Confidence: 0.27695724

01:23:47.151 --> 01:23:49.552 I've become overtime you know I I

NOTE Confidence: 0.27695724

01:23:49.560 --> 01:23:54.328 I do I am concerned that that that

NOTE Confidence: 0.27695724

01:23:54.328 --> 01:23:56.752 bringing in you know non clinical

NOTE Confidence: 0.27695724

01:23:56.752 --> 01:23:58.292 factors really opens the triad

NOTE Confidence: 0.27695724

01:23:58.292 --> 01:24:01.870 vertical up to legitimate criticism

NOTE Confidence: 0.27695724

01:24:01.870 --> 01:24:04.245 and and also illegitimate criticism

NOTE Confidence: 0.27695724

01:24:04.245 --> 01:24:07.120 and and undermines the entire project

NOTE Confidence: 0.53457963

01:24:07.560 --> 01:24:09.640 baby out with the bathwater I guess right.

NOTE Confidence: 0.53457963

01:24:09.640 --> 01:24:12.195 You know, is the idea like sofa?

NOTE Confidence: 0.53457963

01:24:12.200 --> 01:24:13.784 Getting rid of sofa is sort of step

NOTE Confidence: 0.53457963

01:24:13.784 --> 01:24:15.359 one that will do most of the work.

NOTE Confidence: 0.53457963

01:24:15.360 --> 01:24:18.200 But if we try to do both at the same time,

NOTE Confidence: 0.53457963

01:24:18.200 --> 01:24:24.600 then you know, I I agree and I worry

NOTE Confidence: 0.53457963

01:24:24.600 --> 01:24:27.200 about just very arbitrary weights

NOTE Confidence: 0.53457963

01:24:27.200 --> 01:24:30.120 to like this mapping, right? Why?

NOTE Confidence: 0.53457963

01:24:30.120 --> 01:24:32.160 Where does that 4th come from?

NOTE Confidence: 0.53457963

01:24:32.160 --> 01:24:34.315 Why twice as many chances

NOTE Confidence: 0.53457963

01:24:34.315 --> 01:24:36.039 to get monoclonal antibody?

NOTE Confidence: 0.53457963

01:24:36.040 --> 01:24:37.692 Like I think that has to be

NOTE Confidence: 0.53457963

01:24:37.692 --> 01:24:38.400 really well justified.

NOTE Confidence: 0.53457963

01:24:38.400 --> 01:24:40.675 Harold Schmidt from Penn is thinking about,

NOTE Confidence: 0.53457963

01:24:40.680 --> 01:24:42.512 you know, you look at the map and

NOTE Confidence: 0.53457963

01:24:42.512 --> 01:24:44.235 see how the pandemic's hidden that

NOTE Confidence: 0.53457963

01:24:44.235 --> 01:24:46.305 the communities and then you design

NOTE Confidence: 0.53457963

01:24:46.305 --> 01:24:48.318 the weights proportional to that.

NOTE Confidence: 0.53457963

01:24:48.320 --> 01:24:49.116 So that's an idea.

NOTE Confidence: 0.53457963

01:24:49.116 --> 01:24:50.584 But I think the nice thing about

NOTE Confidence: 0.53457963

01:24:50.584 --> 01:24:51.714 having a simulation model is

NOTE Confidence: 0.53457963

01:24:51.714 --> 01:24:52.840 you can just try like

NOTE Confidence: 0.2549888

01:24:55.560 --> 01:24:57.372 see what's ethical after you look

NOTE Confidence: 0.2549888

01:24:57.372 --> 01:24:58.652 at your results. That's not the

NOTE Confidence: 0.2549888

01:24:58.652 --> 01:24:59.396 way you're supposed to do it.

NOTE Confidence: 0.2549888

01:25:00.720 --> 01:25:02.968 No, no. We said that sort of where

NOTE Confidence: 0.2549888

01:25:02.968 --> 01:25:05.240 where we ended up in Omicron when when

NOTE Confidence: 0.2549888

01:25:05.240 --> 01:25:08.560 we actually had our our most severe

NOTE Confidence: 0.2549888

01:25:08.560 --> 01:25:13.200 shortages were allowing 2 positions. They

NOTE Confidence: 0.2549888

01:25:15.920 --> 01:25:21.813 have a a lower threshold to to to

NOTE Confidence: 0.2549888

01:25:21.813 --> 01:25:25.552 with Cold War withdrawal and was

NOTE Confidence: 0.2549888

01:25:25.552 --> 01:25:27.657 usually withdrawal interventions and

NOTE Confidence: 0.2549888

01:25:27.657 --> 01:25:30.651 and so that sort of incorporated

NOTE Confidence: 0.2549888

01:25:30.651 --> 01:25:33.093 something that that Mark mentioned

NOTE Confidence: 0.2549888

01:25:33.093 --> 01:25:34.957 you know allowing clinicians

NOTE Confidence: 0.29083

01:25:35.640 --> 01:25:37.630 to to use their clinical judgement.

NOTE Confidence: 0.29083

01:25:37.630 --> 01:25:40.000 And and also you know your your point

NOTE Confidence: 0.29083

01:25:40.000 --> 01:25:42.630 that it's actually less about

NOTE Confidence: 0.29083

01:25:42.630 --> 01:25:44.280 allocating 11 ventilator among

NOTE Confidence: 0.29083

01:25:44.280 --> 01:25:46.480 three patients than having some

NOTE Confidence: 0.29083

01:25:46.480 --> 01:25:49.560 kind of mechanism to to discontinue

NOTE Confidence: 0.3810770725

01:25:50.000 --> 01:25:52.400 intervention where where seeing

NOTE Confidence: 0.3810770725

01:25:52.400 --> 01:25:53.560 that they're not beneficial. Right.

NOTE Confidence: 0.3810770725

01:25:53.560 --> 01:25:56.116 I I think if you don't have this then just

NOTE Confidence: 0.3810770725

01:25:56.116 --> 01:25:57.922 for comfort that's but we'll have that's

NOTE Confidence: 0.3810770725

01:25:57.922 --> 01:25:59.931 the nice thing about having this a mod

NOTE Confidence: 0.3810770725

01:25:59.931 --> 01:26:01.718 you can actually test that hypothesis.

NOTE Confidence: 0.3810770725

01:26:01.720 --> 01:26:04.040 So I completely agree. OK.

NOTE Confidence: 0.3810770725

01:26:04.040 --> 01:26:06.040 Well, thank you so much, Will.

NOTE Confidence: 0.3810770725

01:26:06.040 --> 01:26:08.000 And please

NOTE Confidence: 0.41115943

01:26:09.120 --> 01:26:10.085 please join me in thanking

NOTE Confidence: 0.41115943

01:26:10.085 --> 01:26:10.840 Will, first of all.

NOTE Confidence: 0.41115943

01:26:15.920 --> 01:26:17.616 But, but so let's you know to realize that,

NOTE Confidence: 0.41115943

01:26:17.616 --> 01:26:19.680 I mean this is the program for biomedical

NOTE Confidence: 0.529909318

01:26:19.680 --> 01:26:21.728 ethics and we need to approach this with

NOTE Confidence: 0.529909318

01:26:21.728 --> 01:26:23.080 some ethical principles in mind and we

NOTE Confidence: 0.529909318

01:26:23.080 --> 01:26:24.920 have to agree on those first. But to have

NOTE Confidence: 0.54310375

01:26:24.920 --> 01:26:26.768 somebody here who's got really the

NOTE Confidence: 0.54310375

01:26:26.768 --> 01:26:29.140 ethical expertise as well as the clinical

NOTE Confidence: 0.54310375

01:26:29.140 --> 01:26:30.840 expertise as well as the quantitative

NOTE Confidence: 0.54310375

01:26:31.200 --> 01:26:33.774 public health expertise in an individual

NOTE Confidence: 0.54310375

01:26:33.774 --> 01:26:37.319 and also give some marvelous presentations,

NOTE Confidence: 0.54310375

01:26:35.400 --> 01:26:36.480 this was a real treat.

NOTE Confidence: 0.54310375

01:26:36.480 --> 01:26:37.320 But thank you so much. I

NOTE Confidence: 0.54310375

01:26:37.320 --> 01:26:38.520 think this is going to be

NOTE Confidence: 0.54310375

01:26:38.520 --> 01:26:39.760 helpful. And I do hope to

NOTE Confidence: 0.54310375

01:26:39.760 --> 01:26:40.796 the ones who are leading the charge

NOTE Confidence: 0.54310375

01:26:40.796 --> 01:26:41.946 here and the ones who are going to

NOTE Confidence: 0.54310375

01:26:41.946 --> 01:26:45.240 lead the charge someday soon, I do hope

NOTE Confidence: 0.54310375

01:26:45.240 --> 01:26:46.880 this would keep this going.

NOTE Confidence: 0.54310375

01:26:46.880 --> 01:26:47.800 We'll keep this going.

NOTE Confidence: 0.54310375

01:26:47.800 --> 01:26:49.480 Thank you all very much. Good night.

NOTE Confidence: 0.68558043

01:26:56.000 --> 01:26:56.480 OK, good.