WEBVTT

00:00:00.000 --> 00:00:02.225 Welcome to Yale Cancer Answers

NOTE Confidence: 0.72455848888889

 $00{:}00{:}02.225 \dashrightarrow 00{:}00{:}04.005$ with Doctor Anees Chagpar.

NOTE Confidence: 0.72455848888889

 $00:00:04.010 \longrightarrow 00:00:05.825$ Yale Cancer Answers features the

NOTE Confidence: 0.72455848888889

00:00:05.825 --> 00:00:07.640 latest information on cancer care

NOTE Confidence: 0.72455848888889

 $00:00:07.701 \longrightarrow 00:00:09.133$ by welcoming oncologists and

NOTE Confidence: 0.72455848888889

00:00:09.133 --> 00:00:11.281 specialists who are on the forefront

NOTE Confidence: 0.72455848888889

 $00:00:11.337 \longrightarrow 00:00:12.987$ of the battle to fight cancer.

NOTE Confidence: 0.72455848888889

 $00{:}00{:}12.990 \dashrightarrow 00{:}00{:}15.294$ This week it's a conversation about

NOTE Confidence: 0.72455848888889

 $00:00:15.294 \longrightarrow 00:00:17.570$ global oncology with Doctor Saad Omer.

NOTE Confidence: 0.72455848888889

00:00:17.570 --> 00:00:19.382 Doctor Omer is the Harvey and

NOTE Confidence: 0.724558488888889

 $00{:}00{:}19.382 \dashrightarrow 00{:}00{:}21.002$ Kate Cushing professor of medicine

NOTE Confidence: 0.72455848888889

 $00{:}00{:}21.002 \dashrightarrow 00{:}00{:}22.410$ and infectious diseases at

NOTE Confidence: 0.72455848888889

00:00:22.410 --> 00:00:24.170 the Yale School of Medicine,

NOTE Confidence: 0.72455848888889

00:00:24.170 --> 00:00:25.955 where Doctor Chagpar is a

NOTE Confidence: 0.72455848888889

 $00:00:25.955 \longrightarrow 00:00:27.383$ professor of surgical oncology.

00:00:58.680 --> 00:01:00.568 Saad, maybe we can start off by you

NOTE Confidence: 0.90338360173913

 $00{:}01{:}00.568 {\:\dashrightarrow\:} 00{:}01{:}02.415$ telling us a little bit about

NOTE Confidence: 0.90338360173913

 $00:01:02.415 \longrightarrow 00:01:04.309$ yourself and what it is you do.

NOTE Confidence: 0.865372886

 $00:01:04.360 \longrightarrow 00:01:05.800$ I'm the director of the Yale

NOTE Confidence: 0.865372886

 $00:01:05.800 \longrightarrow 00:01:06.760$ Institute for Global Health.

NOTE Confidence: 0.865372886

 $00:01:06.760 \longrightarrow 00:01:08.640$ I'm an infectious disease epidemiologist

NOTE Confidence: 0.865372886

 $00:01:08.640 \longrightarrow 00:01:11.234$ who has had the privilege of working

NOTE Confidence: 0.865372886

00:01:11.234 --> 00:01:13.184 in multiple countries and have done

NOTE Confidence: 0.865372886

 $00{:}01{:}13.184 \dashrightarrow 00{:}01{:}15.412$ studies in multiple places both in

NOTE Confidence: 0.865372886

00:01:15.412 --> 00:01:18.496 the US and outside the US.

NOTE Confidence: 0.865372886

 $00:01:18.496 \longrightarrow 00:01:23.451$ My own work is focused on infectious

NOTE Confidence: 0.865372886

 $00:01:23.451 \longrightarrow 00:01:26.277$ diseases and as you know

NOTE Confidence: 0.865372886

00:01:26.277 --> 00:01:29.080 there are several cancers now

NOTE Confidence: 0.865372886

 $00:01:29.080 \longrightarrow 00:01:32.180$ that have an association with

NOTE Confidence: 0.865372886

 $00:01:32.180 \longrightarrow 00:01:34.742$ infectious agents and the

NOTE Confidence: 0.865372886

 $00:01:34.742 \longrightarrow 00:01:37.202$ most prominent one of them is

 $00{:}01{:}37.202 \dashrightarrow 00{:}01{:}40.846$ the HPV or human Papilloma Virus

NOTE Confidence: 0.865372886

 $00:01:40.846 \longrightarrow 00:01:43.358$ association with cervical cancer.

NOTE Confidence: 0.865372886

 $00:01:43.360 \longrightarrow 00:01:46.314$ So some of my work has focused

NOTE Confidence: 0.865372886

 $00:01:46.314 \longrightarrow 00:01:47.580$ on HPV vaccines,

NOTE Confidence: 0.865372886

 $00{:}01{:}47.580 \dashrightarrow 00{:}01{:}49.540$ but you know I work broadly on

NOTE Confidence: 0.865372886

 $00:01:49.540 \longrightarrow 00:01:51.749$ all sorts of infectious diseases.

NOTE Confidence: 0.838740921875

00:01:52.180 --> 00:01:54.525 So let's talk a little bit about

NOTE Confidence: 0.838740921875

 $00:01:54.525 \longrightarrow 00:01:56.752$ the global implications

NOTE Confidence: 0.838740921875

 $00:01:56.752 \longrightarrow 00:01:59.036$ for cancer. Just recently

NOTE Confidence: 0.838740921875

 $00:01:59.040 \longrightarrow 00:02:01.830$ we heard in the news that a lot of

NOTE Confidence: 0.838740921875

 $00:02:01.830 \longrightarrow 00:02:04.322$ the global work that had been done

NOTE Confidence: 0.838740921875

 $00{:}02{:}04.322 \dashrightarrow 00{:}02{:}07.009$ and a lot of the global strides

NOTE Confidence: 0.838740921875

 $00:02:07.009 \longrightarrow 00:02:10.137$ that had been made in terms of HIV,

NOTE Confidence: 0.838740921875

00:02:10.137 --> 00:02:12.426 malaria, and TB took a bit of

NOTE Confidence: 0.838740921875

 $00:02:12.426 \longrightarrow 00:02:14.850$ a hit during the pandemic,

 $00:02:14.850 \longrightarrow 00:02:18.474$ and a number of world leaders are now

NOTE Confidence: 0.838740921875

 $00{:}02{:}18.474 \dashrightarrow 00{:}02{:}20.800$ really refocusing their efforts on

NOTE Confidence: 0.838740921875

 $00:02:20.800 \longrightarrow 00:02:23.498$ shoring up those efforts once again.

NOTE Confidence: 0.838740921875

 $00:02:23.498 \longrightarrow 00:02:26.724$ Can you tell us a little bit

NOTE Confidence: 0.838740921875

 $00:02:26.724 \longrightarrow 00:02:29.400$ about the impact of the pandemic?

NOTE Confidence: 0.838740921875

 $00:02:29.400 \longrightarrow 00:02:31.420$ on cancer worldwide?

NOTE Confidence: 0.842162397272727

 $00:02:32.130 \longrightarrow 00:02:37.877$ One of the things that's

NOTE Confidence: 0.842162397272727

 $00:02:37.877 \longrightarrow 00:02:41.173$ concerning about cancer is how

NOTE Confidence: 0.842162397272727

 $00{:}02{:}41.173 \dashrightarrow 00{:}02{:}43.138$ patchy our understanding is with

NOTE Confidence: 0.842162397272727

 $00:02:43.138 \longrightarrow 00:02:45.330$ the true nature of disruptions

NOTE Confidence: 0.842162397272727

 $00{:}02{:}45.330 \dashrightarrow 00{:}02{:}48.070$ that happened during the pandemic.

NOTE Confidence: 0.842162397272727

00:02:48.070 --> 00:02:50.394 And it wasn't just due to shelter

NOTE Confidence: 0.842162397272727

00:02:50.394 --> 00:02:52.650 in place or shutdown orders.

NOTE Confidence: 0.842162397272727

 $00:02:52.650 \longrightarrow 00:02:54.160$ They were very short lived

NOTE Confidence: 0.842162397272727

 $00:02:54.160 \longrightarrow 00:02:55.670$ in most of the world.

NOTE Confidence: 0.842162397272727

00:02:55.670 --> 00:02:59.432 There has been an ongoing

00:02:59.432 --> 00:03:01.514 disruption in screening

NOTE Confidence: 0.842162397272727

 $00:03:01.514 \longrightarrow 00:03:06.458$ and treatment of cancer,

NOTE Confidence: 0.842162397272727

 $00:03:06.460 \longrightarrow 00:03:08.732$ but the data are a bit patchy

NOTE Confidence: 0.842162397272727

 $00:03:08.732 \longrightarrow 00:03:11.265$ and then that's one of those things

NOTE Confidence: 0.842162397272727

00:03:11.265 --> 00:03:13.626 where whenever you

NOTE Confidence: 0.842162397272727

 $00:03:13.626 \longrightarrow 00:03:15.621$ are able to measure especially

NOTE Confidence: 0.842162397272727

00:03:15.621 --> 00:03:18.022 in low resource settings you find

NOTE Confidence: 0.842162397272727

 $00{:}03{:}18.022 \dashrightarrow 00{:}03{:}20.428$ that there has been a disruption

NOTE Confidence: 0.842162397272727

 $00:03:20.428 \longrightarrow 00:03:22.291$ in essential services disruption

NOTE Confidence: 0.842162397272727

 $00{:}03{:}22.291 \to 00{:}03{:}24.741$ and screening which was already

NOTE Confidence: 0.842162397272727

 $00:03:24.741 \longrightarrow 00:03:28.059$ not stellar in a lot of

NOTE Confidence: 0.842162397272727

 $00{:}03{:}28.059 \dashrightarrow 00{:}03{:}29.924$ low resource settings and we

NOTE Confidence: 0.842162397272727

 $00{:}03{:}29.924 \to 00{:}03{:}32.738$ do not know the full scale of

NOTE Confidence: 0.842162397272727

 $00{:}03{:}32.740 \dashrightarrow 00{:}03{:}34.798$ the impact and so you

NOTE Confidence: 0.842162397272727

 $00:03:34.798 \longrightarrow 00:03:37.139$ know that's one side in terms of

00:03:37.139 --> 00:03:38.874 screening and treatment,

NOTE Confidence: 0.842162397272727

 $00:03:38.874 \longrightarrow 00:03:41.060$ but on the prevention side

NOTE Confidence: 0.842162397272727

 $00:03:41.060 \longrightarrow 00:03:45.390$ in terms of the vaccination side,

NOTE Confidence: 0.842162397272727

00:03:45.390 --> 00:03:48.230 HPV vaccine has taken a huge hit in

NOTE Confidence: 0.842162397272727

 $00:03:48.230 \longrightarrow 00:03:50.968$ terms of the delay and introduction

NOTE Confidence: 0.842162397272727

00:03:50.968 --> 00:03:53.878 in new countries and also decline

NOTE Confidence: 0.842162397272727

00:03:53.958 --> 00:03:56.348 in coverage of the vaccine and

NOTE Confidence: 0.842162397272727

 $00:03:56.348 \longrightarrow 00:03:58.652$ that is going to have

NOTE Confidence: 0.842162397272727

00:03:58.652 --> 00:04:00.250 long term consequences.

NOTE Confidence: 0.860926541904762

 $00:04:01.120 \longrightarrow 00:04:04.090$ Saad, when we think about the

NOTE Confidence: 0.860926541904762

 $00{:}04{:}04.090 \dashrightarrow 00{:}04{:}06.912~\mathrm{HPV}$ vaccine one of the things is that

NOTE Confidence: 0.860926541904762

 $00:04:06.912 \longrightarrow 00:04:10.495$ even in the US we know that we've

NOTE Confidence: 0.860926541904762

 $00{:}04{:}10.495 \dashrightarrow 00{:}04{:}13.060$ seen cervical cancer rates decline as

NOTE Confidence: 0.860926541904762

 $00:04:13.060 \longrightarrow 00:04:15.756$ there has been more of an uptake in

NOTE Confidence: 0.860926541904762

 $00:04:15.760 \longrightarrow 00:04:20.105$ vaccine here, but it's still not 100%.

NOTE Confidence: 0.860926541904762

 $00:04:20.105 \longrightarrow 00:04:23.105$ And one can only imagine that

00:04:23.105 --> 00:04:25.978 in low to middle income countries,

NOTE Confidence: 0.860926541904762

00:04:25.980 --> 00:04:28.476 the uptake rate even at baseline,

NOTE Confidence: 0.860926541904762

00:04:28.480 --> 00:04:30.210 forgetting about the impact of

NOTE Confidence: 0.860926541904762

00:04:30.210 --> 00:04:31.940 the pandemic and everything else,

NOTE Confidence: 0.860926541904762

 $00:04:31.940 \longrightarrow 00:04:34.166$ may have been lower than it has

NOTE Confidence: 0.860926541904762

 $00:04:34.166 \longrightarrow 00:04:35.420$ been in the US.

NOTE Confidence: 0.860926541904762

 $00:04:35.420 \longrightarrow 00:04:38.038$ Can you talk a little bit about that

NOTE Confidence: 0.860926541904762

 $00:04:38.038 \longrightarrow 00:04:40.186$ and about what are the etiologic

NOTE Confidence: 0.860926541904762

00:04:40.186 --> 00:04:41.980 factors that play into that?

NOTE Confidence: 0.860926541904762

00:04:41.980 --> 00:04:44.966 I mean, is cost an issue, cultural issues?

NOTE Confidence: 0.860926541904762

 $00:04:44.966 \longrightarrow 00:04:45.992$ Access, what?

NOTE Confidence: 0.860926541904762

 $00:04:45.992 \longrightarrow 00:04:50.592$ What are the issues and what have we

NOTE Confidence: 0.860926541904762

 $00{:}04{:}50.592 \dashrightarrow 00{:}04{:}53.924$ seen in terms of HPV vaccine worldwide?

NOTE Confidence: 0.875295135454546

 $00:04:54.790 \longrightarrow 00:04:59.060$ So the situation with the HPV

NOTE Confidence: 0.875295135454546

 $00:04:59.060 \longrightarrow 00:05:02.736$ vaccine introduction and uptake and

 $00:05:02.736 \longrightarrow 00:05:06.054$ now what we are calling backsliding,

NOTE Confidence: 0.875295135454546

 $00:05:06.060 \longrightarrow 00:05:08.598$ is a little bit nuanced.

NOTE Confidence: 0.875295135454546

 $00:05:08.600 \longrightarrow 00:05:11.106$ So initially you know as usual the

NOTE Confidence: 0.875295135454546

 $00:05:11.106 \longrightarrow 00:05:12.593$ vaccine was initially introduced

NOTE Confidence: 0.875295135454546

00:05:12.593 --> 00:05:14.663 in high income countries and

NOTE Confidence: 0.875295135454546

 $00:05:14.663 \longrightarrow 00:05:17.528$ the US was one of the earliest

NOTE Confidence: 0.875295135454546

 $00:05:17.528 \longrightarrow 00:05:20.428$ countries where it was introduced,

NOTE Confidence: 0.875295135454546

00:05:20.428 --> 00:05:24.250 very quickly entities like GAVI,

NOTE Confidence: 0.875295135454546

 $00{:}05{:}24.250 \to 00{:}05{:}27.076$ the Vaccine Alliance, and full disclosure,

NOTE Confidence: 0.875295135454546

 $00:05:27.080 \longrightarrow 00:05:30.040$ I'm on their board.

NOTE Confidence: 0.875295135454546

 $00:05:30.040 \longrightarrow 00:05:33.180$ Which is an entity that

NOTE Confidence: 0.875295135454546

 $00:05:33.180 \longrightarrow 00:05:35.620$ brings together governments

NOTE Confidence: 0.875295135454546

 $00:05:35.620 \longrightarrow 00:05:38.670$ and government funding as well

NOTE Confidence: 0.875295135454546

00:05:38.766 --> 00:05:40.680 as private donations,

NOTE Confidence: 0.875295135454546

 $00:05:40.680 \longrightarrow 00:05:43.218$ large private donations from entities like

NOTE Confidence: 0.875295135454546

 $00:05:43.218 \longrightarrow 00:05:45.781$ the Gates Foundation to provide access

 $00:05:45.781 \longrightarrow 00:05:48.574$ to life saving vaccines around the world.

NOTE Confidence: 0.875295135454546

 $00:05:48.580 \longrightarrow 00:05:51.232$ So Gavi got involved and prioritized

NOTE Confidence: 0.875295135454546

 $00:05:51.232 \longrightarrow 00:05:53.926$ as part of their

NOTE Confidence: 0.875295135454546

 $00:05:53.926 \longrightarrow 00:05:56.286$ current strategy that was supposed to

NOTE Confidence: 0.875295135454546

 $00:05:56.286 \longrightarrow 00:05:58.057$ be implemented a couple of years ago,

 $00:06:00.970 \longrightarrow 00:06:03.700$ right before the pandemic to

NOTE Confidence: 0.875295135454546

 $00:06:03.700 \longrightarrow 00:06:06.270$ increase access to the vaccine,

NOTE Confidence: 0.875295135454546

 $00:06:06.270 \longrightarrow 00:06:07.360$ a couple of things happened.

NOTE Confidence: 0.875295135454546

 $00:06:07.360 \longrightarrow 00:06:10.538$ There was a shortage in supply and

NOTE Confidence: 0.875295135454546

00:06:10.538 --> 00:06:13.157 production and so that impacted

NOTE Confidence: 0.875295135454546

 $00{:}06{:}13.157 \dashrightarrow 00{:}06{:}15.485$ the speed of introduction.

NOTE Confidence: 0.875295135454546

 $00:06:15.490 \longrightarrow 00:06:21.350$ But also the early pilots in countries

NOTE Confidence: 0.875295135454546

 $00:06:21.350 \longrightarrow 00:06:24.583$ like India suffered from misinformation

NOTE Confidence: 0.875295135454546

 $00:06:24.583 \longrightarrow 00:06:26.795$ and disinformation and misunderstanding

NOTE Confidence: 0.875295135454546

 $00:06:26.795 \longrightarrow 00:06:30.730$ and some kind of intentional

NOTE Confidence: 0.875295135454546

 $00{:}06{:}30.730 \dashrightarrow 00{:}06{:}32.946$ pushback from some circles.

 $00:06:32.946 \longrightarrow 00:06:37.080$ And so with that legacy

 $00:06:38.274 \longrightarrow 00:06:41.060$ we went into as the global community

NOTE Confidence: 0.875295135454546

 $00:06:41.138 \longrightarrow 00:06:43.994$ into the pandemic where these problems

NOTE Confidence: 0.875295135454546

 $00:06:43.994 \longrightarrow 00:06:46.717$ were compounded by the fact that

NOTE Confidence: 0.875295135454546

 $00:06:46.717 \longrightarrow 00:06:48.582$ you can't introduce new vaccines

NOTE Confidence: 0.875295135454546

00:06:48.582 --> 00:06:50.826 in more and more countries during

NOTE Confidence: 0.875295135454546

 $00:06:50.826 \longrightarrow 00:06:53.259$ the pandemic which are not COVID-19

NOTE Confidence: 0.875295135454546

00:06:53.259 --> 00:06:55.254 because everyone was focusing on

NOTE Confidence: 0.875295135454546

 $00{:}06{:}55.317 \dashrightarrow 00{:}06{:}57.897$ COVID and just barely maintaining

NOTE Confidence: 0.875295135454546

 $00:06:57.897 \longrightarrow 00:06:59.991$ routine immunization of existing vaccines,

NOTE Confidence: 0.875295135454546 00:06:59.991 --> 00:07:00.733 but also NOTE Confidence: 0.875295135454546

 $00:07:00.733 \longrightarrow 00:07:02.217$ there was a backsliding,

NOTE Confidence: 0.875295135454546

 $00:07:02.220 \longrightarrow 00:07:06.186$ there was a reduction in

NOTE Confidence: 0.875295135454546

 $00:07:06.190 \longrightarrow 00:07:07.965$ this vaccination and

NOTE Confidence: 0.875295135454546

 $00:07:07.965 \longrightarrow 00:07:09.740$ then so for HPV vaccine,

NOTE Confidence: 0.875295135454546

 $00{:}07{:}09.740 \dashrightarrow 00{:}07{:}12.072$ the vaccination rates declined

 $00:07:12.072 \longrightarrow 00:07:15.570$ even in the few countries where

NOTE Confidence: 0.875295135454546

 $00:07:15.671 \longrightarrow 00:07:17.926$ it was available, by 15%

NOTE Confidence: 0.875295135454546

 $00:07:29.220 \longrightarrow 00:07:31.398$ where these vaccines were already being used.

NOTE Confidence: 0.875295135454546

 $00:07:31.400 \longrightarrow 00:07:33.212$ But what we need to remember

NOTE Confidence: 0.875295135454546

 $00:07:33.212 \longrightarrow 00:07:34.750$ that 2/3 of girls,

NOTE Confidence: 0.875295135454546

 $00{:}07{:}34.750 \dashrightarrow 00{:}07{:}38.638$ if you are just focusing on girls and women,

NOTE Confidence: 0.875295135454546

00:07:38.640 --> 00:07:41.076 live in countries without HPV vaccine.

NOTE Confidence: 0.875295135454546

 $00:07:41.080 \longrightarrow 00:07:43.606$ And the pandemic has hurt this

NOTE Confidence: 0.875295135454546

 $00:07:43.606 \longrightarrow 00:07:45.833$ new introduction in these countries

NOTE Confidence: 0.875295135454546

 $00:07:45.833 \longrightarrow 00:07:47.219$ of HPV vaccine.

NOTE Confidence: 0.875295135454546

 $00{:}07{:}47.220 \dashrightarrow 00{:}07{:}49.986$ And so therefore the coverage of

NOTE Confidence: 0.875295135454546

 $00:07:49.986 \longrightarrow 00:07:51.830$ this cancer preventing vaccine

NOTE Confidence: 0.875295135454546

00:07:51.908 --> 00:07:53.796 is barely 12% around the world.

NOTE Confidence: 0.875295135454546

 $00:07:53.796 \longrightarrow 00:07:55.356$ And so this is concerning.

NOTE Confidence: 0.925914789

 $00:07:56.660 \longrightarrow 00:07:58.460$ One of the things

 $00:07:58.460 \longrightarrow 00:07:59.660$ that you mentioned is

NOTE Confidence: 0.925914789

 $00{:}07{:}59.660 \dashrightarrow 00{:}08{:}02.229$ really a touch point and that

NOTE Confidence: 0.925914789

 $00:08:02.229 \longrightarrow 00:08:05.085$ is that when the HPV vaccine

NOTE Confidence: 0.925914789

 $00{:}08{:}05.085 \dashrightarrow 00{:}08{:}06.756$ was initially introduced,

NOTE Confidence: 0.925914789

00:08:06.760 --> 00:08:08.182 particularly in India,

NOTE Confidence: 0.925914789

 $00:08:08.182 \longrightarrow 00:08:11.026$ there was a lot of misinformation

NOTE Confidence: 0.925914789

 $00:08:11.026 \longrightarrow 00:08:13.297$ around that and that was due to

NOTE Confidence: 0.925914789

 $00:08:13.297 \longrightarrow 00:08:15.800$ a number of things,

NOTE Confidence: 0.925914789

 $00{:}08{:}15.800 --> 00{:}08{:}18.705$ but you know a lot of these

NOTE Confidence: 0.911009594

 $00:08:20.850 \longrightarrow 00:08:23.580$ are scary stories and

NOTE Confidence: 0.911009594

 $00:08:23.580 \longrightarrow 00:08:25.213$ cultural issues and disinformation

NOTE Confidence: 0.911009594

 $00:08:25.213 \longrightarrow 00:08:27.894$ kind of made it out into the

NOTE Confidence: 0.911009594

 $00:08:27.894 \longrightarrow 00:08:30.472$ media and it was thought that

NOTE Confidence: 0.911009594

 $00{:}08{:}30.472 \dashrightarrow 00{:}08{:}33.274$ really played a role in terms of

NOTE Confidence: 0.911009594

 $00:08:33.274 \longrightarrow 00:08:36.466$ reducing the uptake of that vaccine.

NOTE Confidence: 0.911009594

 $00:08:36.470 \longrightarrow 00:08:39.235$ I wonder now that we've seen kind

00:08:39.235 --> 00:08:41.458 of the same misinformation with

NOTE Confidence: 0.911009594

 $00{:}08{:}41.458 \mathrel{--}{>} 00{:}08{:}45.250$ COVID and I'm hoping that a lot of

NOTE Confidence: 0.911009594

00:08:45.340 --> 00:08:48.556 that has been dispelled whether you

NOTE Confidence: 0.911009594

00:08:48.556 --> 00:08:51.100 anticipate that now HPV vaccine

NOTE Confidence: 0.911009594

 $00:08:51.100 \longrightarrow 00:08:54.355$ might be able to gain hold again,

NOTE Confidence: 0.911009594

 $00:08:54.360 \longrightarrow 00:08:56.327$ after we've kind of dispelled a

NOTE Confidence: 0.911009594

 $00:08:56.327 \longrightarrow 00:08:58.657$ lot of the myths around vaccines or

NOTE Confidence: 0.911009594

 $00:08:58.657 \longrightarrow 00:09:00.787$ whether you think the HPV vaccine

NOTE Confidence: 0.911009594

 $00{:}09{:}00.848 \dashrightarrow 00{:}09{:}03.050$ holds a special place because part

NOTE Confidence: 0.911009594

 $00:09:03.050 \longrightarrow 00:09:05.552$ of the misinformation had to do with

NOTE Confidence: 0.911009594

00:09:05.552 --> 00:09:07.960 how the clinical trials were run and

NOTE Confidence: 0.911009594

 $00:09:08.040 \longrightarrow 00:09:11.120$ part of the misinformation had to do with

NOTE Confidence: 0.911009594

 $00{:}09{:}11.120 \dashrightarrow 00{:}09{:}13.395$ sexual practices and so on.

NOTE Confidence: 0.911009594

 $00:09:13.400 \longrightarrow 00:09:15.280$ So what do you think is going to

NOTE Confidence: 0.911009594

 $00:09:15.280 \longrightarrow 00:09:17.726$ be the state of affairs for the

 $00:09:17.726 \longrightarrow 00:09:19.254$ vaccination rates going forward?

NOTE Confidence: 0.911009594

 $00:09:19.260 \longrightarrow 00:09:21.757$ Do you think that our

NOTE Confidence: 0.911009594

00:09:21.757 --> 00:09:24.442 experience now with COVID vaccine

NOTE Confidence: 0.911009594

 $00{:}09{:}24.442 \dashrightarrow 00{:}09{:}27.749$ and seeing how effective it was

NOTE Confidence: 0.911009594

 $00{:}09{:}27.749 \dashrightarrow 00{:}09{:}30.255$ will help HPV vaccines or do you

NOTE Confidence: 0.911009594

 $00{:}09{:}30.340 \dashrightarrow 00{:}09{:}32.846$ think that HPV is still going to

NOTE Confidence: 0.911009594

 $00{:}09{:}32.846 \dashrightarrow 00{:}09{:}35.612$ to be hit pretty hard in terms

NOTE Confidence: 0.911009594

00:09:35.612 --> 00:09:37.304 of getting public uptake?

NOTE Confidence: 0.7682907025

 $00{:}09{:}37.860 \dashrightarrow 00{:}09{:}42.232$ There was a bit of a naivety on

NOTE Confidence: 0.7682907025

00:09:42.232 --> 00:09:44.934 the part of global public health community

NOTE Confidence: 0.7682907025

 $00:09:44.934 \longrightarrow 00:09:48.168$ when this vaccine was initially introduced.

NOTE Confidence: 0.7682907025

 $00:09:48.170 \longrightarrow 00:09:50.492$ So it was introduced in pilots

NOTE Confidence: 0.7682907025

 $00:09:50.500 \longrightarrow 00:09:52.516$ starting in India and other places.

NOTE Confidence: 0.7682907025

 $00:09:52.520 \longrightarrow 00:09:55.504$ And there was the assumption

NOTE Confidence: 0.7682907025

 $00:09:55.504 \longrightarrow 00:09:58.844$ that if you just brought the vaccine closer

NOTE Confidence: 0.7682907025

 $00:09:58.844 \longrightarrow 00:10:01.739$ to people than they will vaccinate,

 $00:10:01.740 \longrightarrow 00:10:04.765$ it wasn't proactively paired with

NOTE Confidence: 0.7682907025

 $00{:}10{:}04.765 \dashrightarrow 00{:}10{:}07.185$ an educational and informational

NOTE Confidence: 0.7682907025

 $00:10:07.185 \longrightarrow 00:10:10.190$ component of that introduction program

NOTE Confidence: 0.7682907025

00:10:10.190 --> 00:10:13.220 of the public health authorities and

NOTE Confidence: 0.7682907025

 $00:10:13.220 \longrightarrow 00:10:16.029$ entities that were introducing this vaccine

NOTE Confidence: 0.7682907025

00:10:16.029 --> 00:10:19.395 and many parts of the world did not pair

NOTE Confidence: 0.7682907025

00:10:19.395 --> 00:10:22.470 that with a behavioral response to this,

NOTE Confidence: 0.7682907025

00:10:22.470 --> 00:10:24.900 and they did not anticipate proactively

NOTE Confidence: 0.7682907025

 $00:10:24.900 \longrightarrow 00:10:26.936$ that there will be misunderstandings

NOTE Confidence: 0.7682907025

 $00{:}10{:}26.936 \dashrightarrow 00{:}10{:}29.640$ and misinformation and disinformation.

NOTE Confidence: 0.7682907025

00:10:29.640 --> 00:10:31.060 And so first of all,

NOTE Confidence: 0.7682907025

 $00:10:31.060 \longrightarrow 00:10:32.518$ there is a legacy of that.

NOTE Confidence: 0.7682907025

00:10:32.520 --> 00:10:33.777 But going forward,

NOTE Confidence: 0.7682907025

00:10:33.777 --> 00:10:37.240 I think you would be incredibly naive again,

NOTE Confidence: 0.7682907025

00:10:37.240 --> 00:10:40.750 if we don't move forward with a sort of

 $00:10:40.750 \longrightarrow 00:10:43.348$ comprehensive behavioral response.

NOTE Confidence: 0.7682907025

00:10:43.348 --> 00:10:47.793 If we do that and we do that with

NOTE Confidence: 0.7682907025

 $00:10:47.793 \longrightarrow 00:10:50.973$ respect to communities that have

NOTE Confidence: 0.7682907025

 $00:10:50.973 \longrightarrow 00:10:55.516$ questions and answer them and make an

NOTE Confidence: 0.7682907025

 $00:10:55.516 \longrightarrow 00:10:57.728$ effort to make sure that people are

NOTE Confidence: 0.7682907025

 $00:10:57.728 \longrightarrow 00:10:59.680$ empowered with information but also

NOTE Confidence: 0.7682907025

 $00:10:59.680 \longrightarrow 00:11:01.645$ proactively use behavioral science to

NOTE Confidence: 0.7682907025

 $00:11:01.645 \longrightarrow 00:11:04.385$ make sure that the vaccines are promoted

NOTE Confidence: 0.7682907025

 $00{:}11{:}04.385 \dashrightarrow 00{:}11{:}06.515$ appropriately and so and so forth,

NOTE Confidence: 0.7682907025

 $00:11:06.520 \longrightarrow 00:11:09.678$ I think we can make a dent in

NOTE Confidence: 0.7682907025

00:11:09.678 --> 00:11:11.652 preventing this disease,

NOTE Confidence: 0.7682907025

00:11:11.652 --> 00:11:15.800 this horrible disease, through vaccination,

NOTE Confidence: 0.7682907025

 $00:11:15.800 \longrightarrow 00:11:17.666$ but it's not going to happen

NOTE Confidence: 0.7682907025

 $00:11:17.666 \longrightarrow 00:11:18.599$ on cruise control.

NOTE Confidence: 0.7682907025

00:11:18.600 --> 00:11:20.760 It will require efforts from various

NOTE Confidence: 0.7682907025

 $00:11:20.760 \longrightarrow 00:11:23.168$ partners and it will require thoughtfulness

00:11:23.168 --> 00:11:25.867 and it will require, frankly,

NOTE Confidence: 0.7682907025

 $00{:}11{:}25.867 \dashrightarrow 00{:}11{:}32.076$ activism from groups that are impacted by

NOTE Confidence: 0.7682907025

00:11:32.080 --> 00:11:35.020 HPV and most importantly,

NOTE Confidence: 0.7682907025

 $00:11:35.020 \longrightarrow 00:11:35.672$ cervical cancer.

NOTE Confidence: 0.7682907025

 $00:11:35.672 \longrightarrow 00:11:36.324$ And so,

NOTE Confidence: 0.7682907025

 $00:11:36.324 \longrightarrow 00:11:39.467$ so that kind of an approach

NOTE Confidence: 0.7682907025

00:11:39.467 --> 00:11:42.050 where you are not just deploying it

NOTE Confidence: 0.7682907025

00:11:42.126 --> 00:11:44.660 from a technical side but also you

NOTE Confidence: 0.7682907025

 $00:11:44.660 \longrightarrow 00:11:46.406$ have a community engagement component,

NOTE Confidence: 0.7682907025

00:11:46.406 --> 00:11:48.046 you have a behavioral science

NOTE Confidence: 0.7682907025

00:11:48.046 --> 00:11:49.030 component to it,

NOTE Confidence: 0.7682907025

 $00{:}11{:}49.030 \dashrightarrow 00{:}11{:}52.355$ but also activism from communities

NOTE Confidence: 0.7682907025

 $00{:}11{:}52.355 \dashrightarrow 00{:}11{:}56.282$ who should be an interest

NOTE Confidence: 0.7682907025

 $00:11:56.282 \longrightarrow 00:11:59.180$ group who want to prevent cancer.

NOTE Confidence: 0.7682907025

 $00:11:59.180 \longrightarrow 00:12:02.341$ And so I think it will take an all hands

 $00:12:04.646 \longrightarrow 00:12:06.866$ on deck situation as we expand

 $00:12:06.870 \longrightarrow 00:12:08.598$ vaccination against HPV.

NOTE Confidence: 0.701185172

 $00{:}12{:}12.380 \dashrightarrow 00{:}12{:}15.386$ And that especially will play where

NOTE Confidence: 0.701185172

 $00:12:15.386 \longrightarrow 00:12:19.160$ the HPV vaccine is already available.

NOTE Confidence: 0.701185172

 $00:12:19.160 \longrightarrow 00:12:20.564$ What about the communities

NOTE Confidence: 0.701185172

 $00:12:20.564 \longrightarrow 00:12:21.968$ where it's not available?

NOTE Confidence: 0.701185172

 $00:12:21.970 \longrightarrow 00:12:23.322$ Why isn't it available?

NOTE Confidence: 0.701185172

 $00:12:23.322 \longrightarrow 00:12:26.242$ Why is it that 2/3 of women are

NOTE Confidence: 0.701185172

 $00:12:26.242 \longrightarrow 00:12:28.272$ living in countries where the

NOTE Confidence: 0.701185172

00:12:28.272 --> 00:12:30.619 HPV vaccine is not available?

NOTE Confidence: 0.701185172

 $00:12:30.620 \longrightarrow 00:12:32.752$ Is cost an issue?

NOTE Confidence: 0.701185172

00:12:32.752 --> 00:12:34.987 Is Gavi not providing it?

NOTE Confidence: 0.701185172

 $00:12:34.987 \longrightarrow 00:12:37.321$ Tell us more about what we

NOTE Confidence: 0.701185172

00:12:37.321 --> 00:12:39.739 can do to expand the access

NOTE Confidence: 0.701185172

00:12:39.740 --> 00:12:41.576 to this vaccine worldwide,

NOTE Confidence: 0.701185172

 $00:12:41.576 \longrightarrow 00:12:43.871$ because it seems that it's

00:12:43.871 --> 00:12:45.741 incredibly effective against a

NOTE Confidence: 0.701185172

 $00:12:45.741 \longrightarrow 00:12:48.417$ malignancy that nobody wants to get.

NOTE Confidence: 0.701185172

 $00:12:48.420 \longrightarrow 00:12:50.574$ We should be able to

NOTE Confidence: 0.701185172

00:12:50.574 --> 00:12:52.010 get the world's people,

NOTE Confidence: 0.701185172

00:12:52.010 --> 00:12:55.489 not just women, but boys and girls

NOTE Confidence: 0.701185172

 $00:12:55.490 \longrightarrow 00:12:58.400$ vaccinated.

NOTE Confidence: 0.80176834875

 $00:12:58.850 \longrightarrow 00:12:59.758$ Yeah, that's

NOTE Confidence: 0.80176834875

 $00:12:59.758 \longrightarrow 00:13:00.666$ a really good question.

NOTE Confidence: 0.80176834875

 $00{:}13{:}00.670 \dashrightarrow 00{:}13{:}05.980$ So it was an issue, cost was an issue.

NOTE Confidence: 0.80176834875

 $00:13:05.980 \longrightarrow 00:13:07.204$ But not anymore.

NOTE Confidence: 0.80176834875

 $00{:}13{:}07.204 \dashrightarrow 00{:}13{:}10.060$ So GAVI has decided and had decided

NOTE Confidence: 0.80176834875

 $00:13:10.146 \longrightarrow 00:13:12.438$ before the pandemic to introduce

NOTE Confidence: 0.80176834875

 $00:13:12.438 \longrightarrow 00:13:14.433$ this vaccine and help countries

NOTE Confidence: 0.80176834875

 $00{:}13{:}14.433 \dashrightarrow 00{:}13{:}16.458$ introduce and no external entity

NOTE Confidence: 0.80176834875

 $00:13:16.458 \longrightarrow 00:13:18.720$ can introduce it on their own.

NOTE Confidence: 0.80176834875

 $00:13:18.720 \longrightarrow 00:13:22.024$ It's a country level decision and it's the

 $00:13:22.024 \longrightarrow 00:13:24.896$ communities that have to want it to do this.

NOTE Confidence: 0.80176834875

 $00{:}13{:}24.900 \dashrightarrow 00{:}13{:}29.430$ But Gavi came in and said that it will be

NOTE Confidence: 0.80176834875

 $00:13:29.545 \longrightarrow 00:13:34.075$ a priority for introduction in countries,

NOTE Confidence: 0.80176834875

 $00:13:34.080 \longrightarrow 00:13:37.264$ but around that time there was a shortage

NOTE Confidence: 0.80176834875

 $00:13:37.270 \longrightarrow 00:13:41.126$ of this vaccine globally that has since been eased.

NOTE Confidence: 0.80176834875

 $00:13:42.330 \longrightarrow 00:13:45.487$ Now the ball is in the court of those who

NOTE Confidence: 0.80176834875

 $00:13:45.487 \longrightarrow 00:13:47.632$ are responsible for implementing rather

NOTE Confidence: 0.80176834875

00:13:47.632 --> 00:13:50.338 than those who are responsible for

NOTE Confidence: 0.80176834875

 $00{:}13{:}50.338 \dashrightarrow 00{:}13{:}52.996$ supplying and providing resources for it.

NOTE Confidence: 0.878225114444444

00:13:53.550 --> 00:13:55.290 Yeah, it sounds like we've

NOTE Confidence: 0.878225114444444

 $00:13:55.290 \longrightarrow 00:13:57.282$ heard the story of

NOTE Confidence: 0.878225114444444

 $00:13:57.282 \longrightarrow 00:13:59.354$ first there was a shortage and then

NOTE Confidence: 0.878225114444444

 $00{:}13{:}59.354 \dashrightarrow 00{:}14{:}01.608$ it's getting it into the communities.

NOTE Confidence: 0.878225114444444

00:14:01.610 --> 00:14:03.850 It sounds like this is a repeat

NOTE Confidence: 0.878225114444444

 $00:14:03.850 \longrightarrow 00:14:05.568$ of something that we've seen

 $00:14:05.568 \longrightarrow 00:14:07.626$ with the COVID vaccine as well.

NOTE Confidence: 0.878225114444444

 $00{:}14{:}07.630 \dashrightarrow 00{:}14{:}09.298$ We're going to pick up this

NOTE Confidence: 0.878225114444444

00:14:09.298 --> 00:14:10.742 story learning more about global

NOTE Confidence: 0.878225114444444

00:14:10.742 --> 00:14:12.410 oncology right after we take a

NOTE Confidence: 0.878225114444444

 $00{:}14{:}12.410 \dashrightarrow 00{:}14{:}14.189$ short break for a medical minute.

NOTE Confidence: 0.878225114444444

 $00:14:14.190 \longrightarrow 00:14:15.870$ Please stay tuned to learn more

NOTE Confidence: 0.878225114444444

00:14:15.870 --> 00:14:17.820 with my guest, Doctor Saad Omer.

NOTE Confidence: 0.798708097

00:14:18.370 --> 00:14:20.380 Funding for Yale Cancer Answers

NOTE Confidence: 0.798708097

00:14:20.380 --> 00:14:22.390 comes from Smilow Cancer Hospital,

NOTE Confidence: 0.798708097

 $00:14:22.390 \longrightarrow 00:14:24.305$ where their liver cancer program

NOTE Confidence: 0.798708097

 $00{:}14{:}24.305 \dashrightarrow 00{:}14{:}26.220$ brings together a dedicated group

NOTE Confidence: 0.798708097

 $00:14:26.287 \longrightarrow 00:14:28.407$ of specialists whose focus is

NOTE Confidence: 0.798708097

 $00:14:28.407 \longrightarrow 00:14:30.103$ determining the best personalized

NOTE Confidence: 0.798708097

 $00{:}14{:}30.103 \dashrightarrow 00{:}14{:}31.870$ treatment plan for each patient.

NOTE Confidence: 0.798708097

 $00:14:31.870 \longrightarrow 00:14:34.930$ Learn more at smilowcancerhospital.org.

NOTE Confidence: 0.937662276363637

 $00:14:37.030 \longrightarrow 00:14:38.806$ Breast cancer is one of the

 $00{:}14{:}38.806 \dashrightarrow 00{:}14{:}40.410$ most common cancers in women.

NOTE Confidence: 0.937662276363637

 $00:14:40.410 \longrightarrow 00:14:41.727$ In Connecticut alone,

NOTE Confidence: 0.937662276363637

 $00:14:41.727 \longrightarrow 00:14:43.922$ approximately 3500 women will be

NOTE Confidence: 0.937662276363637

00:14:43.922 --> 00:14:46.387 diagnosed with breast cancer this year,

NOTE Confidence: 0.937662276363637

 $00:14:46.390 \longrightarrow 00:14:48.749$ but there is hope thanks to earlier

NOTE Confidence: 0.937662276363637

00:14:48.749 --> 00:14:49.890 detection, noninvasive treatments,

NOTE Confidence: 0.937662276363637

 $00:14:49.890 \longrightarrow 00:14:52.290$ and the development of novel therapies

NOTE Confidence: 0.937662276363637

 $00:14:52.290 \longrightarrow 00:14:53.910$ to fight breast cancer.

NOTE Confidence: 0.937662276363637

 $00{:}14{:}53.910 \dashrightarrow 00{:}14{:}55.935$ Women should schedule a baseline

NOTE Confidence: 0.937662276363637

00:14:55.935 --> 00:14:57.877 mammogram beginning at age 40 or

NOTE Confidence: 0.937662276363637

 $00:14:57.877 \longrightarrow 00:14:59.860$ earlier if they have risk factors

NOTE Confidence: 0.937662276363637

 $00{:}14{:}59.860 \dashrightarrow 00{:}15{:}01.628$ associated with the disease.

NOTE Confidence: 0.937662276363637

 $00{:}15{:}01.630 \dashrightarrow 00{:}15{:}03.338$ With screening, early detection,

NOTE Confidence: 0.937662276363637

 $00:15:03.338 \longrightarrow 00:15:05.046$ and a healthy lifestyle,

NOTE Confidence: 0.937662276363637

 $00:15:05.050 \longrightarrow 00:15:07.220$ breast cancer can be defeated.

 $00:15:07.220 \longrightarrow 00:15:09.176$ Clinical trials are currently

NOTE Confidence: 0.937662276363637

 $00{:}15{:}09.176 \dashrightarrow 00{:}15{:}11.132$ underway at federally designated

NOTE Confidence: 0.937662276363637

 $00:15:11.132 \longrightarrow 00:15:12.814$ Comprehensive cancer centers such

NOTE Confidence: 0.937662276363637

00:15:12.814 --> 00:15:15.040 as Yale Cancer Center and Smilow

NOTE Confidence: 0.937662276363637

 $00:15:15.040 \longrightarrow 00:15:17.128$ Cancer Hospital to make innovative

NOTE Confidence: 0.937662276363637

 $00:15:17.128 \longrightarrow 00:15:19.258$ new treatments available to patients.

NOTE Confidence: 0.937662276363637

00:15:19.260 --> 00:15:20.970 Digital breast tomosynthesis,

NOTE Confidence: 0.937662276363637

00:15:20.970 --> 00:15:22.680 or 3D mammography,

NOTE Confidence: 0.937662276363637

 $00{:}15{:}22.680 {\:{\mbox{--}}\!>\:} 00{:}15{:}24.820$ is also transforming breast

NOTE Confidence: 0.937662276363637

 $00:15:24.820 \longrightarrow 00:15:26.960$ cancer screening by significantly

NOTE Confidence: 0.937662276363637

 $00{:}15{:}26.960 {\:{\mbox{--}}}{>} 00{:}15{:}28.548$ reducing unnecessary procedures

NOTE Confidence: 0.937662276363637

 $00:15:28.548 \longrightarrow 00:15:30.778$ while picking up more cancers.

NOTE Confidence: 0.937662276363637

 $00{:}15{:}30.780 \dashrightarrow 00{:}15{:}33.116$ More information is available

NOTE Confidence: 0.937662276363637

00:15:33.116 --> 00:15:34.137 at yale cancercenter.org.

NOTE Confidence: 0.937662276363637

00:15:34.137 --> 00:15:36.759 You're listening to Connecticut public radio.

NOTE Confidence: 0.830555016666667

 $00:15:37.730 \longrightarrow 00:15:39.950$ Welcome back to Yale Cancer Answers.

 $00:15:39.950 \longrightarrow 00:15:41.470$ This is doctor Anees Chappar

NOTE Confidence: 0.830555016666667

 $00{:}15{:}41.470 \dashrightarrow 00{:}15{:}43.549$ and I'm joined to night by my guest,

NOTE Confidence: 0.830555016666667

 $00:15:43.550 \longrightarrow 00:15:44.264$ Doctor Saad Omer.

NOTE Confidence: 0.830555016666667

00:15:44.264 --> 00:15:46.049 We're talking about his work

NOTE Confidence: 0.830555016666667

 $00:15:46.049 \longrightarrow 00:15:47.909$ in global health and oncology.

NOTE Confidence: 0.830555016666667

00:15:47.910 --> 00:15:49.050 And right before the break,

NOTE Confidence: 0.830555016666667

00:15:49.050 --> 00:15:52.627 we were talking about the HPV vaccine,

NOTE Confidence: 0.830555016666667

 $00:15:52.630 \longrightarrow 00:15:54.950$ which is incredibly effective not

NOTE Confidence: 0.830555016666667

00:15:54.950 --> 00:15:57.270 only in preventing cervical cancer,

NOTE Confidence: 0.830555016666667

 $00:15:57.270 \longrightarrow 00:15:59.069$ but a whole host of other cancers,

NOTE Confidence: 0.830555016666667

 $00{:}15{:}59.070 \dashrightarrow 00{:}16{:}01.670$ anal cancer, head neck cancer.

NOTE Confidence: 0.830555016666667

 $00{:}16{:}01.670 \dashrightarrow 00{:}16{:}05.387$ And the issues that that vaccine has

NOTE Confidence: 0.830555016666667

 $00{:}16{:}05.387 \dashrightarrow 00{:}16{:}09.481$ faced in terms of global uptake and how

NOTE Confidence: 0.830555016666667

00:16:09.481 --> 00:16:13.440 so many women and men quite frankly,

NOTE Confidence: 0.830555016666667

 $00:16:13.440 \longrightarrow 00:16:16.038$ who get these types of cancers

 $00:16:16.038 \longrightarrow 00:16:18.362$ reside in countries where this

NOTE Confidence: 0.830555016666667

 $00:16:18.362 \longrightarrow 00:16:20.937$ vaccine is currently not available.

00:16:23.692 --> 00:16:26.852 Another viral etiologic agent

NOTE Confidence: 0.830555016666667

 $00{:}16{:}26.852 \dashrightarrow 00{:}16{:}32.855$ to which we have a vaccine that also is

NOTE Confidence: 0.830555016666667

 $00:16:32.855 \longrightarrow 00:16:38.210$ related to cancers is hepatitis and HBV.

NOTE Confidence: 0.830555016666667

 $00:16:38.210 \longrightarrow 00:16:39.954$ Tell us a little bit more about that,

NOTE Confidence: 0.830555016666667

 $00{:}16{:}39.960 \dashrightarrow 00{:}16{:}42.846$ what is the vaccination status

NOTE Confidence: 0.830555016666667

 $00:16:42.846 \longrightarrow 00:16:45.286$ worldwide with hepatitis B vaccines

NOTE Confidence: 0.830555016666667

00:16:45.286 --> 00:16:47.854 and is that making an impact?

NOTE Confidence: 0.924713451428571

00:16:48.910 --> 00:16:51.763 Yeah, it is making an impact.

NOTE Confidence: 0.924713451428571

 $00:16:51.763 \longrightarrow 00:16:55.760$ We have had observational studies that have

NOTE Confidence: 0.924713451428571

 $00:16:55.760 \longrightarrow 00:16:59.365$ shown the impact of hepatitis B vaccine.

NOTE Confidence: 0.924713451428571

 $00:16:59.370 \longrightarrow 00:17:04.000$ Several countries have introduced this

NOTE Confidence: 0.867639511428571

 $00{:}17{:}06.200 \dashrightarrow 00{:}17{:}09.255$ vaccine in their routine immunization

NOTE Confidence: 0.867639511428571

 $00{:}17{:}09.255 \dashrightarrow 00{:}17{:}12.288$ schedules often and that's really

NOTE Confidence: 0.867639511428571

00:17:12.288 --> 00:17:15.000 helpful often as a multivalent vaccine,

 $00:17:15.000 \longrightarrow 00:17:16.660$ often as a combination vaccine.

NOTE Confidence: 0.867639511428571

 $00:17:16.660 \longrightarrow 00:17:19.719$ So it's easier to deliver these vaccines

NOTE Confidence: 0.867639511428571

 $00:17:19.720 \longrightarrow 00:17:22.456$ the fewer shots you

NOTE Confidence: 0.867639511428571

 $00:17:22.456 \longrightarrow 00:17:25.256$ have to deliver the less cumbersome it

NOTE Confidence: 0.867639511428571

 $00:17:25.256 \longrightarrow 00:17:27.720$ is in terms of what we call cold chain,

NOTE Confidence: 0.867639511428571

 $00{:}17{:}27.720 \dashrightarrow 00{:}17{:}29.200$ meaning keeping the vaccines

NOTE Confidence: 0.867639511428571

 $00:17:29.200 \longrightarrow 00:17:30.680$ at the right temperature,

NOTE Confidence: 0.867639511428571

 $00:17:30.680 \longrightarrow 00:17:32.794$ delivery access and all of that stuff.

NOTE Confidence: 0.867639511428571

 $00:17:32.800 \longrightarrow 00:17:34.485$ So with that inclusion and

NOTE Confidence: 0.867639511428571

 $00:17:34.485 \longrightarrow 00:17:36.690$ with that kind of a focus

NOTE Confidence: 0.867639511428571

 $00{:}17{:}36.690 {\:{\mbox{--}}\!>}\ 00{:}17{:}42.356$ in several countries we have had an impact

NOTE Confidence: 0.867639511428571

 $00:17:42.356 \longrightarrow 00:17:47.990$ on getting this vaccine into kids arms,

NOTE Confidence: 0.867639511428571

 $00:17:47.990 \longrightarrow 00:17:50.125$ at a very early stage.

NOTE Confidence: 0.867639511428571

 $00:17:50.130 \longrightarrow 00:17:51.795$ However, there are a few

NOTE Confidence: 0.867639511428571

00:17:51.795 --> 00:17:53.882 things in several countries

NOTE Confidence: 0.867639511428571

 $00:17:53.882 \longrightarrow 00:17:57.386$ it's a relatively recent development in

 $00:17:57.386 \longrightarrow 00:18:01.120$ terms of getting high immunization rates.

NOTE Confidence: 0.867639511428571

 $00:18:01.120 \longrightarrow 00:18:03.472$ But early indications from early adopters

NOTE Confidence: 0.867639511428571

 $00{:}18{:}03.472 \dashrightarrow 00{:}18{:}05.538$ are countries where there's vaccine

NOTE Confidence: 0.867639511428571

 $00:18:05.538 \longrightarrow 00:18:08.366$ was introduced a while ago,

NOTE Confidence: 0.867639511428571

 $00:18:08.370 \longrightarrow 00:18:10.986$ we have seen an impact on

NOTE Confidence: 0.867639511428571

 $00:18:10.990 \longrightarrow 00:18:12.541$ cancer incidence, etc.

NOTE Confidence: 0.867639511428571

00:18:12.541 --> 00:18:14.609 And so that's encouraging,

NOTE Confidence: 0.867639511428571

 $00:18:14.610 \longrightarrow 00:18:15.350$ not surprising.

NOTE Confidence: 0.867639511428571

00:18:15.350 --> 00:18:16.830 But you still measure,

NOTE Confidence: 0.867639511428571

 $00:18:16.830 \longrightarrow 00:18:19.427$ you still sort of assess the impact.

NOTE Confidence: 0.867639511428571

 $00:18:19.430 \longrightarrow 00:18:22.405$ So because it takes time from infection

NOTE Confidence: 0.867639511428571

00:18:22.405 --> 00:18:25.688 to cancer for these kinds of pathways,

NOTE Confidence: 0.867639511428571

 $00{:}18{:}25.690 \dashrightarrow 00{:}18{:}27.786$ it it takes time to show the impact,

NOTE Confidence: 0.867639511428571

 $00:18:27.790 \longrightarrow 00:18:31.370$ but there's still a big chunk

NOTE Confidence: 0.867639511428571

 $00:18:31.370 \longrightarrow 00:18:33.014$ who are unvaccinated,

 $00:18:33.014 \longrightarrow 00:18:36.370$ so we will unfortunately see for a few years,

 $00:18:37.014 \longrightarrow 00:18:38.946$ that cohort go through the

NOTE Confidence: 0.867639511428571

 $00:18:38.946 \longrightarrow 00:18:40.950$ system and that is unfortunate.

NOTE Confidence: 0.867639511428571 00:18:40.950 --> 00:18:41.760 Obviously

NOTE Confidence: 0.860284275

00:18:42.130 --> 00:18:45.406 if hepatitis B vaccination is successful,

NOTE Confidence: 0.860284275

 $00:18:45.410 \longrightarrow 00:18:47.540$ one wonders about the

NOTE Confidence: 0.860284275

00:18:47.540 --> 00:18:50.090 concept of pairing it with HPV,

NOTE Confidence: 0.860284275

 $00:18:50.090 \longrightarrow 00:18:52.046$ which has been to my understanding,

NOTE Confidence: 0.860284275

 $00:18:52.050 \longrightarrow 00:18:54.948$ less successful in terms of getting uptake.

NOTE Confidence: 0.860284275

 $00{:}18{:}54.950 \dashrightarrow 00{:}18{:}56.462$ What do you think about that concept

NOTE Confidence: 0.860284275

00:18:56.462 --> 00:18:58.094 of just saying, you know what,

NOTE Confidence: 0.860284275

 $00:18:58.094 \longrightarrow 00:19:00.062$ this is a package of vaccinations

NOTE Confidence: 0.860284275

 $00:19:00.062 \longrightarrow 00:19:02.009$ that your kids get at schools?

NOTE Confidence: 0.860284275

 $00{:}19{:}02.010 \dashrightarrow 00{:}19{:}03.702$ Or when they reach a certain

NOTE Confidence: 0.860284275

 $00:19:03.702 \longrightarrow 00:19:05.060$ certain age and this is,

NOTE Confidence: 0.860284275

 $00:19:05.060 \longrightarrow 00:19:06.866$ you know, a community effort.

 $00:19:09.400 \longrightarrow 00:19:11.290$ Yeah, I think that's a good idea.

00:19:11.290 --> 00:19:14.368 We already packaged, it's hep B

NOTE Confidence: 0.81012029

 $00:19:14.368 \longrightarrow 00:19:16.420$ vaccine with childhood vaccines

NOTE Confidence: 0.81012029

00:19:16.507 --> 00:19:19.237 and we vaccinate earlier for HEB,

NOTE Confidence: 0.81012029

 $00:19:19.240 \longrightarrow 00:19:23.900$ whereas for hepatitis, for HPV,

NOTE Confidence: 0.81012029

 $00:19:23.900 \longrightarrow 00:19:28.010$ human papilloma virus vaccine, we vaccinate.

NOTE Confidence: 0.842851442857143

 $00:19:31.410 \longrightarrow 00:19:34.910$ These people are pre teens

NOTE Confidence: 0.842851442857143

 $00:19:34.910 \longrightarrow 00:19:37.710$ at that age before

NOTE Confidence: 0.842851442857143

00:19:37.710 --> 00:19:39.190 puberty in certain countries,

NOTE Confidence: 0.842851442857143

 $00:19:39.190 \longrightarrow 00:19:42.029$ a lot of countries during teen years.

00:19:43.870 --> 00:19:46.444 But most importantly

NOTE Confidence: 0.842851442857143

 $00{:}19{:}46.444 \dashrightarrow 00{:}19{:}48.637$ you could have catch up campaigns that

NOTE Confidence: 0.842851442857143

 $00:19:48.637 \longrightarrow 00:19:51.067$ are combined for those two vaccines.

NOTE Confidence: 0.842851442857143

00:19:51.070 --> 00:19:53.410 But I think the current strategy

NOTE Confidence: 0.842851442857143

 $00:19:53.410 \longrightarrow 00:19:55.366$ of vaccinating kids earlier in

NOTE Confidence: 0.842851442857143

 $00:19:55.366 \longrightarrow 00:19:57.641$ life for habits so that they are

NOTE Confidence: 0.842851442857143

00:19:57.641 --> 00:20:01.082 protected from the whole scope

 $00:20:01.082 \longrightarrow 00:20:03.696$ of this illness because

NOTE Confidence: 0.842851442857143

 $00:20:03.696 \longrightarrow 00:20:04.920$ the earlier it happens,

NOTE Confidence: 0.842851442857143

00:20:04.920 --> 00:20:07.290 earlier hepatitis B infection happens,

NOTE Confidence: 0.842851442857143

 $00:20:07.290 \longrightarrow 00:20:09.397$ the more likely it is for people

NOTE Confidence: 0.842851442857143

00:20:09.397 --> 00:20:11.209 to develop cancer later in life. 00:20:12.060 --> 00:20:13.817 A little bit of a hybrid strategy

NOTE Confidence: 0.842851442857143

00:20:13.817 --> 00:20:14.570 would be helpful,

NOTE Confidence: 0.842851442857143

00:20:14.570 --> 00:20:16.810 but pairing it with other routine vaccines,

NOTE Confidence: 0.842851442857143

00:20:16.810 --> 00:20:19.708 what it does for HEP B is makes

NOTE Confidence: 0.842851442857143

00:20:19.708 --> 00:20:21.410 it routine. For HPV,

NOTE Confidence: 0.842851442857143

 $00{:}20{:}21.410 --> 00{:}20{:}24.285$ I think as the adolescent

NOTE Confidence: 0.842851442857143

00:20:24.285 --> 00:20:26.585 vaccine platform picks up,

NOTE Confidence: 0.842851442857143

 $00:20:26.590 \longrightarrow 00:20:29.642$ we will have to and we should

NOTE Confidence: 0.842851442857143

 $00:20:29.642 \longrightarrow 00:20:31.920$ pair it with other vaccines.

NOTE Confidence: 0.842851442857143

00:20:31.920 --> 00:20:32.920 With meningitis vaccine,

NOTE Confidence: 0.842851442857143

 $00{:}20{:}32.920 \dashrightarrow 00{:}20{:}34.921$ which is done in the US and with

 $00:20:34.921 \longrightarrow 00:20:36.253$ some success that if you pair

NOTE Confidence: 0.842851442857143

 $00:20:36.253 \longrightarrow 00:20:37.708$ it with other vaccines.

NOTE Confidence: 0.842851442857143

00:20:37.710 --> 00:20:39.230 Unfortunately in other countries,

NOTE Confidence: 0.842851442857143

 $00:20:39.230 \longrightarrow 00:20:40.370$ in many countries,

NOTE Confidence: 0.842851442857143

 $00:20:40.370 \longrightarrow 00:20:42.110$ especially in low and middle

NOTE Confidence: 0.842851442857143

 $00:20:42.110 \longrightarrow 00:20:44.210$ income countries where by the way

NOTE Confidence: 0.842851442857143

 $00:20:44.210 \longrightarrow 00:20:46.010$ the biggest burden of cancer is

NOTE Confidence: 0.842851442857143

 $00:20:46.010 \longrightarrow 00:20:49.856$ that there are no vaccines that

NOTE Confidence: 0.842851442857143

 $00{:}20{:}49.856 \to 00{:}20{:}52.870$ are given during teenage years.

NOTE Confidence: 0.842851442857143

 $00:20:52.870 \longrightarrow 00:20:55.595$ So as that portfolio expands,

NOTE Confidence: 0.842851442857143

 $00{:}20{:}55.600 \dashrightarrow 00{:}20{:}57.581$ I think it will be helpful to pair

NOTE Confidence: 0.842851442857143

 $00{:}20{:}57.581 \rightarrow 00{:}20{:}59.579$ the HPV vaccine with that as well.

NOTE Confidence: 0.733626814

 $00{:}20{:}59.970 \dashrightarrow 00{:}21{:}02.230$ And it brings

NOTE Confidence: 0.733626814

 $00:21:02.230 \longrightarrow 00:21:03.849$ up a good point,

NOTE Confidence: 0.733626814

 $00:21:03.849 \longrightarrow 00:21:06.572$ which is that the largest burden of

00:21:06.572 --> 00:21:09.281 of cancer these days is occurring

NOTE Confidence: 0.733626814

 $00{:}21{:}09.281 \dashrightarrow 00{:}21{:}12.047$ in low to middle income countries.

NOTE Confidence: 0.733626814

 $00{:}21{:}12.050 \dashrightarrow 00{:}21{:}15.794$ And when we look at future forecasts

NOTE Confidence: 0.733626814

 $00:21:15.800 \longrightarrow 00:21:18.908$ it's thought that that's where the most

NOTE Confidence: 0.733626814

 $00:21:18.908 \longrightarrow 00:21:22.336$ increase in the burden of cancer will be.

NOTE Confidence: 0.733626814

 $00:21:22.340 \longrightarrow 00:21:24.044$ And there are some

NOTE Confidence: 0.733626814

 $00:21:24.044 \longrightarrow 00:21:25.180$ statistics that say

NOTE Confidence: 0.733626814

 $00:21:25.180 \longrightarrow 00:21:28.378$ in terms of mortality

NOTE Confidence: 0.733626814

 $00:21:28.378 \longrightarrow 00:21:31.090$ cancer claims more lives than

NOTE Confidence: 0.733626814

 $00:21:31.090 \longrightarrow 00:21:38.076$ HIV, TB and other issues.

NOTE Confidence: 0.733626814

 $00:21:38.080 \longrightarrow 00:21:42.352$ Sorry. And and other issues,

NOTE Confidence: 0.733626814

 $00:21:42.352 \longrightarrow 00:21:44.542$ infectious issues in low to

NOTE Confidence: 0.733626814

 $00{:}21{:}44.542 \dashrightarrow 00{:}21{:}47.098$ middle income countries combined.

NOTE Confidence: 0.733626814

00:21:47.100 --> 00:21:48.324 And so you know,

NOTE Confidence: 0.733626814

 $00:21:48.324 \longrightarrow 00:21:50.676$ one wonders as we put more resources

NOTE Confidence: 0.733626814

00:21:50.676 --> 00:21:52.851 into the infectious elements in

00:21:52.851 --> 00:21:55.879 these low to middle income countries,

NOTE Confidence: 0.733626814

 $00:21:55.880 \longrightarrow 00:21:58.400$ what do you think should be

NOTE Confidence: 0.733626814

 $00:21:58.400 \longrightarrow 00:22:00.080$ the case for cancer?

NOTE Confidence: 0.733626814

00:22:00.080 --> 00:22:04.969 How do we increase the awareness of NGO's,

NOTE Confidence: 0.733626814

 $00:22:04.969 \longrightarrow 00:22:05.787$ of governments,

NOTE Confidence: 0.733626814

 $00:22:05.787 \longrightarrow 00:22:08.650$ of others about the growing cancer burden

NOTE Confidence: 0.733626814

00:22:08.716 --> 00:22:10.888 in low to middle income countries?

NOTE Confidence: 0.733626814

 $00:22:10.890 \longrightarrow 00:22:13.494$ So that really rises to

NOTE Confidence: 0.733626814

 $00:22:13.494 \longrightarrow 00:22:16.420$ the same level as HIV and TB.

NOTE Confidence: 0.840413611904762

00:22:17.070 --> 00:22:19.604 Yeah, I think as someone who primarily

NOTE Confidence: 0.840413611904762

 $00:22:19.604 \longrightarrow 00:22:21.184$ works on infectious diseases

NOTE Confidence: 0.840413611904762

00:22:21.184 --> 00:22:23.734 including overlaps with

NOTE Confidence: 0.840413611904762

 $00{:}22{:}23.734 \dashrightarrow 00{:}22{:}25.876$ in fectious causes for cancer,

NOTE Confidence: 0.840413611904762

 $00{:}22{:}25.876 \dashrightarrow 00{:}22{:}29.170$ I am a big believer of focus on things

NOTE Confidence: 0.840413611904762

 $00{:}22{:}29.261 \dashrightarrow 00{:}22{:}31.841$ like cancer and cardiovascular diseases

00:22:31.841 --> 00:22:36.141 in terms of our global investments in

NOTE Confidence: 0.840413611904762

 $00:22:36.141 \longrightarrow 00:22:40.407$ global public health and and treatment.

NOTE Confidence: 0.840413611904762

 $00:22:40.410 \longrightarrow 00:22:43.623$ I think the world can walk and chew gum.

NOTE Confidence: 0.840413611904762

 $00:22:43.630 \longrightarrow 00:22:45.610$ It doesn't have to

NOTE Confidence: 0.840413611904762

 $00:22:45.610 \longrightarrow 00:22:47.826$ be an either or situation.

 $00:22:49.560 \longrightarrow 00:22:54.968$ It doesn't have to be a situation where

NOTE Confidence: 0.840413611904762

 $00:22:54.970 \longrightarrow 00:22:58.096$ you either have to

NOTE Confidence: 0.840413611904762

00:22:58.096 --> 00:23:00.180 prevent mortality through malaria,

NOTE Confidence: 0.840413611904762

 $00:23:00.180 \longrightarrow 00:23:01.790$ which is horrible for a lot of

NOTE Confidence: 0.840413611904762

 $00:23:01.790 \longrightarrow 00:23:03.000$ communities and in the world,

NOTE Confidence: 0.840413611904762

00:23:03.000 --> 00:23:06.280 or HIV or tuberculosis, etc,

NOTE Confidence: 0.840413611904762

 $00:23:06.280 \longrightarrow 00:23:08.380$ and sort of ignore cancer

NOTE Confidence: 0.840413611904762

 $00{:}23{:}08.380 \dashrightarrow 00{:}23{:}09.640$ and cardiovascular disease.

NOTE Confidence: 0.840413611904762

 $00{:}23{:}09.640 --> 00{:}23{:}11.075$ I think we can and we must

NOTE Confidence: 0.840413611904762

 $00:23:11.075 \longrightarrow 00:23:12.159$ and we should do that.

NOTE Confidence: 0.840413611904762

00:23:12.160 --> 00:23:16.324 And I believe entities such

 $00:23:16.324 \longrightarrow 00:23:18.440$ as the Global Fund for TB,

NOTE Confidence: 0.840413611904762

 $00:23:18.440 \longrightarrow 00:23:22.376$ malaria and HIV that provides resources

NOTE Confidence: 0.840413611904762

 $00:23:22.380 \longrightarrow 00:23:25.260$ to low income countries through funding

NOTE Confidence: 0.840413611904762

 $00:23:25.260 \longrightarrow 00:23:26.836$ from the US government,

NOTE Confidence: 0.840413611904762

00:23:26.836 --> 00:23:28.412 other developed and developing

NOTE Confidence: 0.840413611904762

00:23:28.412 --> 00:23:29.200 country governments,

NOTE Confidence: 0.840413611904762

 $00:23:29.200 \longrightarrow 00:23:32.022$ they pool their resources and provide

NOTE Confidence: 0.840413611904762

 $00:23:32.022 \longrightarrow 00:23:33.990$ treatment for these diseases.

NOTE Confidence: 0.840413611904762

00:23:33.990 --> 00:23:37.609 And the GAVI, the Global Vaccine Alliance,

NOTE Confidence: 0.840413611904762

 $00:23:37.610 \longrightarrow 00:23:39.962$ which focuses on vaccines,

NOTE Confidence: 0.840413611904762

 $00{:}23{:}39.962 \dashrightarrow 00{:}23{:}43.490$ a similar model are templates

NOTE Confidence: 0.840413611904762

 $00:23:43.589 \longrightarrow 00:23:46.529$ for a global cancer moon shot,

NOTE Confidence: 0.840413611904762

 $00:23:46.530 \longrightarrow 00:23:48.427$ both in terms of not just technology,

NOTE Confidence: 0.840413611904762

00:23:48.430 --> 00:23:50.782 but in terms of actually getting

NOTE Confidence: 0.840413611904762

 $00:23:50.782 \longrightarrow 00:23:52.350$ treatments and screening and

NOTE Confidence: 0.840413611904762

 $00:23:52.422 \longrightarrow 00:23:55.450$ diagnostics to low and middle income

 $00:23:55.450 \longrightarrow 00:23:57.760$ countries.

NOTE Confidence: 0.840413611904762

 $00:23:57.760 \longrightarrow 00:24:01.043$ A majority of the deaths due to the

NOTE Confidence: 0.840413611904762

 $00:24:01.043 \longrightarrow 00:24:03.212$ 10 million cancer deaths were in

NOTE Confidence: 0.840413611904762

 $00:24:03.212 \longrightarrow 00:24:05.138$ low and middle income countries in

NOTE Confidence: 0.840413611904762

 $00:24:05.138 \longrightarrow 00:24:07.297$ 2020 and the trend has remained.

NOTE Confidence: 0.840413611904762

 $00:24:07.300 \longrightarrow 00:24:09.564$ And in fact there will be a higher

NOTE Confidence: 0.840413611904762

 $00:24:09.564 \longrightarrow 00:24:11.674$ proportion in low and middle income

NOTE Confidence: 0.840413611904762

 $00:24:11.674 \longrightarrow 00:24:13.158$ countries because the population

NOTE Confidence: 0.840413611904762

00:24:13.158 --> 00:24:15.424 there is increasing and there was

NOTE Confidence: 0.840413611904762

 $00:24:15.424 \longrightarrow 00:24:17.249$ a bigger disruption in prevention

NOTE Confidence: 0.840413611904762

 $00:24:17.249 \longrightarrow 00:24:18.646$ and treatment services.

NOTE Confidence: 0.840413611904762

 $00{:}24{:}18.646 \dashrightarrow 00{:}24{:}21.772$ And so I think there should be and

NOTE Confidence: 0.840413611904762

 $00:24:21.772 \longrightarrow 00:24:24.037$ there has to be a call for action

NOTE Confidence: 0.840413611904762

 $00:24:24.037 \longrightarrow 00:24:26.945$ to say that, you know, communities

NOTE Confidence: 0.840413611904762

 $00:24:26.945 \longrightarrow 00:24:30.734$ impacted by mortality due to

00:24:30.734 --> 00:24:31.818 preventable,

NOTE Confidence: 0.840413611904762

00:24:31.818 --> 00:24:33.444 increasingly preventable mortality

NOTE Confidence: 0.840413611904762

 $00:24:33.444 \longrightarrow 00:24:35.070$ due to cancer.

NOTE Confidence: 0.840413611904762

 $00:24:35.070 \longrightarrow 00:24:38.490$ And so I think we need to have that kind

NOTE Confidence: 0.840413611904762

 $00:24:38.578 \longrightarrow 00:24:41.998$ of an approach that we can and must end.

NOTE Confidence: 0.840413611904762

 $00:24:42.000 \longrightarrow 00:24:44.166$ We must address all of these

NOTE Confidence: 0.840413611904762

 $00:24:44.166 \longrightarrow 00:24:46.429$ issues that are major causes of

NOTE Confidence: 0.840413611904762

 $00:24:46.429 \longrightarrow 00:24:48.284$ death and disease.

NOTE Confidence: 0.90464303555555

 $00:24:49.000 \longrightarrow 00:24:51.457$ Yeah. One of the issues that I think is

NOTE Confidence: 0.904643035555555

 $00:24:51.460 \longrightarrow 00:24:54.589$ really difficult when it comes to

NOTE Confidence: 0.904643035555555

 $00{:}24{:}54.589 \dashrightarrow 00{:}24{:}57.269$ cancer as opposed to HIV or malaria

NOTE Confidence: 0.904643035555555

 $00:24:57.269 \longrightarrow 00:25:00.399$ or TB is is the fact that

NOTE Confidence: 0.90464303555555

 $00:25:00.400 \longrightarrow 00:25:02.760$ cancer is so complex, right.

NOTE Confidence: 0.904643035555555

 $00:25:02.760 \longrightarrow 00:25:06.780$ And in terms of screening,

NOTE Confidence: 0.904643035555555

 $00:25:06.780 \longrightarrow 00:25:08.677$ we have good screening for some things,

NOTE Confidence: 0.904643035555555

 $00:25:08.680 \longrightarrow 00:25:10.500$ not so good screening for other things,

 $00:25:10.500 \longrightarrow 00:25:13.276$ but even if you were to screen and

NOTE Confidence: 0.904643035555555

 $00:25:13.276 \longrightarrow 00:25:16.117$ then you know the treatments algorithms

NOTE Confidence: 0.904643035555555

00:25:16.117 --> 00:25:18.835 do require you know, surgery

NOTE Confidence: 0.904643035555555

 $00:25:18.835 \longrightarrow 00:25:22.110$ and radiation and chemotherapy and

NOTE Confidence: 0.90464303555555

 $00:25:22.110 \longrightarrow 00:25:25.197$ immunotherapy and various biologics and

NOTE Confidence: 0.90464303555555

00:25:25.197 --> 00:25:28.245 all of the diagnostics that go with it

NOTE Confidence: 0.90464303555555

 $00:25:28.245 \longrightarrow 00:25:31.363$ and it's not as easy.

NOTE Confidence: 0.904643035555555

 $00:25:31.370 \longrightarrow 00:25:34.574$ And that requires a lot of

NOTE Confidence: 0.904643035555555

 $00:25:34.574 \longrightarrow 00:25:38.180$ infrastructure and a lot of resources.

NOTE Confidence: 0.90464303555555

 $00:25:38.180 \longrightarrow 00:25:41.498$ So where do you start?

NOTE Confidence: 0.904643035555555

 $00{:}25{:}41.500 \dashrightarrow 00{:}25{:}43.948$ Because this is a very complex

NOTE Confidence: 0.904643035555555

 $00:25:43.948 \longrightarrow 00:25:47.459$ onion to peel with so many layers of

NOTE Confidence: 0.904643035555555

 $00{:}25{:}47.459 \dashrightarrow 00{:}25{:}50.153$ issues from poverty to education to,

NOTE Confidence: 0.904643035555555

 $00:25:50.160 \longrightarrow 00:25:52.296$ you know, other factors,

NOTE Confidence: 0.90464303555555

00:25:52.296 --> 00:25:55.500 that makes it very difficult for

00:25:55.599 --> 00:25:58.030 people really to make an impact

NOTE Confidence: 0.904643035555555

 $00{:}25{:}58.030 \dashrightarrow 00{:}25{:}59.890$ in terms of cancer care globally.

NOTE Confidence: 0.9001435945

 $00{:}26{:}01.070 \dashrightarrow 00{:}26{:}03.860$ Absolutely correct. But global health

NOTE Confidence: 0.9001435945

 $00{:}26{:}03.860 \dashrightarrow 00{:}26{:}08.577$ is the art of the possible is to look

NOTE Confidence: 0.9001435945

 $00:26:08.577 \longrightarrow 00:26:12.402$ at a problem and say that this is

NOTE Confidence: 0.9001435945

00:26:12.402 --> 00:26:16.189 unacceptable and to have that

NOTE Confidence: 0.9001435945

 $00{:}26{:}16.190 \dashrightarrow 00{:}26{:}18.340$ somewhat Pollyannaish way of

NOTE Confidence: 0.9001435945

00:26:18.340 --> 00:26:21.549 thinking that all lives are created equal,

NOTE Confidence: 0.9001435945

 $00{:}26{:}21.550 \dashrightarrow 00{:}26{:}24.777$ that inequity in access to care and

NOTE Confidence: 0.9001435945

 $00:26:24.777 \longrightarrow 00:26:27.649$ treatment and screening is not acceptable.

NOTE Confidence: 0.9001435945

 $00:26:27.650 \longrightarrow 00:26:29.066$ And that view is not Pollyannaish.

NOTE Confidence: 0.9001435945

 $00:26:29.070 \longrightarrow 00:26:30.660$ It's a way of looking at

NOTE Confidence: 0.9001435945

 $00:26:30.702 \longrightarrow 00:26:33.100$ the world. And saying that, you know,

NOTE Confidence: 0.9001435945

 $00:26:33.100 \longrightarrow 00:26:35.879$ there are certain things

NOTE Confidence: 0.9001435945

 $00:26:35.880 \longrightarrow 00:26:37.840$ not everyone has to have the latest

NOTE Confidence: 0.9001435945

 $00:26:37.840 \longrightarrow 00:26:39.560$ Tesla or the latest iPhone,

 $00:26:39.560 \longrightarrow 00:26:42.755$ but health is a basic human right and this

NOTE Confidence: 0.9001435945

00:26:42.755 --> 00:26:45.498 cannot continue to happen on our watch,

NOTE Confidence: 0.9001435945

 $00:26:45.500 \longrightarrow 00:26:46.980$ at least without an effort.

NOTE Confidence: 0.9001435945

00:26:46.980 --> 00:26:50.884 And so when we start with that position,

NOTE Confidence: 0.9001435945

 $00:26:50.890 \longrightarrow 00:26:54.340$ we look for examples of similar

NOTE Confidence: 0.9001435945

 $00:26:54.340 \longrightarrow 00:26:56.640$ seemingly unsurmountable problems and

NOTE Confidence: 0.9001435945

 $00:26:56.725 \longrightarrow 00:26:59.710$ one of the seemingly unsurmountable

NOTE Confidence: 0.9001435945

 $00:26:59.710 \longrightarrow 00:27:02.238$ problem is and was HIV.

NOTE Confidence: 0.9001435945

 $00{:}27{:}02.238 \dashrightarrow 00{:}27{:}05.540$ I remember starting work in the late 90s

NOTE Confidence: 0.9001435945

 $00:27:05.540 \longrightarrow 00:27:09.004$ and HIV in early 2000s and going

NOTE Confidence: 0.9001435945

 $00{:}27{:}09.004 \dashrightarrow 00{:}27{:}12.127$ to countries like Uganda and Ethiopia

NOTE Confidence: 0.9001435945

00:27:12.130 --> 00:27:15.474 and parts of India as well.

NOTE Confidence: 0.9001435945

 $00:27:15.480 \longrightarrow 00:27:19.855$ And seeing that especially in

NOTE Confidence: 0.9001435945

 $00{:}27{:}19.855 \dashrightarrow 00{:}27{:}22.840$ Uganda and Ethiopia that treatment

NOTE Confidence: 0.9001435945

 $00:27:22.840 \longrightarrow 00:27:25.540$ was nowhere to be found.

 $00:27:25.540 \longrightarrow 00:27:28.018$ By the mid 90s some very good

NOTE Confidence: 0.9001435945

 $00{:}27{:}28.018 {\: -->\:} 00{:}27{:}29.930$ treatment options were available in

NOTE Confidence: 0.9001435945

 $00{:}27{:}29.930 \dashrightarrow 00{:}27{:}32.276$ the US and high income countries.

NOTE Confidence: 0.9001435945

 $00:27:32.280 \longrightarrow 00:27:34.611$ And even when we were doing studies

NOTE Confidence: 0.9001435945

 $00:27:34.611 \longrightarrow 00:27:37.019$ for a lot of these patients,

NOTE Confidence: 0.9001435945

00:27:37.020 --> 00:27:39.813 we were able to provide some treatment

NOTE Confidence: 0.9001435945

00:27:39.813 --> 00:27:43.054 to them in the context of studies with

NOTE Confidence: 0.9001435945

 $00:27:43.054 \longrightarrow 00:27:46.320$ the hope and the aim to bring those

NOTE Confidence: 0.9001435945

 $00:27:46.320 \longrightarrow 00:27:46.857$ treatments

NOTE Confidence: 0.9001435945

 $00:27:46.857 \longrightarrow 00:27:49.542$ through collective action to the

NOTE Confidence: 0.9001435945

00:27:49.542 --> 00:27:52.140 communities we were working with,

NOTE Confidence: 0.9001435945

 $00:27:52.140 \longrightarrow 00:27:54.672$ to the people we were working

NOTE Confidence: 0.9001435945

 $00:27:54.672 \longrightarrow 00:27:57.632$ with and now

NOTE Confidence: 0.9001435945

 $00:27:57.632 \longrightarrow 00:28:00.170$ started a recent phenomenon starting in

NOTE Confidence: 0.893431610909091

 $00:28:02.180 \longrightarrow 00:28:03.794\ 2005,\ 2004,\ 2005.$

NOTE Confidence: 0.893431610909091

 $00:28:03.794 \longrightarrow 00:28:07.560$ The world has made major progress not

 $00:28:07.657 \longrightarrow 00:28:11.353$ only in providing treatment but also

NOTE Confidence: 0.893431610909091

 $00{:}28{:}11.353 \dashrightarrow 00{:}28{:}14.699$ managing a complex disease like HIV

NOTE Confidence: 0.893431610909091

 $00:28:14.700 \longrightarrow 00:28:18.088$ and so therefore I think

NOTE Confidence: 0.893431610909091

 $00:28:18.090 \longrightarrow 00:28:20.314$ this is a model that can be a

NOTE Confidence: 0.893431610909091

00:28:20.314 --> 00:28:22.139 template for cancer prevention,

NOTE Confidence: 0.893431610909091

00:28:22.140 --> 00:28:24.388 screening, treatment, control, etc.

NOTE Confidence: 0.843061111666667

00:28:24.840 --> 00:28:26.922 Doctor Saad Omer is the Harvey

NOTE Confidence: 0.843061111666667

 $00{:}28{:}26.922 \dashrightarrow 00{:}28{:}28.775$ and Kate Cushing professor of

NOTE Confidence: 0.843061111666667

 $00:28:28.775 \longrightarrow 00:28:30.379$ medicine in infectious diseases

NOTE Confidence: 0.843061111666667

 $00:28:30.379 \longrightarrow 00:28:32.384$ and professor of Epidemiology of

NOTE Confidence: 0.843061111666667

 $00:28:32.447 \longrightarrow 00:28:34.302$ microbial diseases at the Yale

NOTE Confidence: 0.843061111666667

 $00{:}28{:}34.302 \dashrightarrow 00{:}28{:}36.517$ School of Medicine and director of

NOTE Confidence: 0.843061111666667

 $00{:}28{:}36.517 \dashrightarrow 00{:}28{:}38.659$ the Yale Institute for Global Health.

NOTE Confidence: 0.843061111666667

 $00:28:38.660 \longrightarrow 00:28:40.704$ If you have questions,

NOTE Confidence: 0.843061111666667

 $00:28:40.704 \longrightarrow 00:28:42.605$ the address is canceranswers@yale.edu,

 $00{:}28{:}42.605 \dashrightarrow 00{:}28{:}44.795$ and past editions of the program

NOTE Confidence: 0.843061111666667

00:28:44.795 --> 00:28:46.789 are available in audio and written

NOTE Confidence: 0.843061111666667

00:28:46.789 --> 00:28:48.194 form at Yale Cancer Center.

NOTE Confidence: 0.843061111666667

00:28:48.200 --> 00:28:50.387 Dot org we hope you'll join us next week

NOTE Confidence: 0.843061111666667

 $00{:}28{:}50.387 \dashrightarrow 00{:}28{:}52.772$ to learn more about the fight against

NOTE Confidence: 0.843061111666667

 $00{:}28{:}52.772 \dashrightarrow 00{:}28{:}54.949$ cancer here on Connecticut Public Radio.

NOTE Confidence: 0.843061111666667

 $00{:}28{:}54.950 \dashrightarrow 00{:}28{:}57.542$ Funding for Yale Cancer Answers is

NOTE Confidence: 0.843061111666667

 $00{:}28{:}57.542 \dashrightarrow 00{:}29{:}00.000$ provided by Smilow Cancer Hospital.