1
00:00:00,510 --> 00:00:02,573
– So I'd like to welcome
everyone to this meeting,

2
00:00:02,573 --> 00:00:04,957
"Enhancing Prevention Research Related

3
00:00:04,957 --> 00:00:08,527
"to Substance Use and Addiction:
Identifying Research Gaps

4
00:00:08,527 --> 00:00:11,730
"and Opportunities with ABCD Study Data".

5
00:00:11,730 --> 00:00:12,850
I am Gaya Dowling.

6
00:00:12,850 --> 00:00:16,110
I oversee the Adolescent
Brain Cognitive Development,

7
00:00:16,110 --> 00:00:19,220
or ABCD Study at NIH.

8
00:00:19,220 --> 00:00:20,780
When ABCD began,

9
00:00:20,780 --> 00:00:23,860
there were many scientific
questions we wanted to answer,

10
00:00:23,860 --> 00:00:26,450
but the goal was more
than scientific inquiry.

11
00:00:26,450 --> 00:00:30,040
It was to answer questions that
could inform the development

12
00:00:30,040 --> 00:00:33,650
of programs and policies to
improve adolescent health.

13
00:00:33,650 --> 00:00:36,240
So we are really excited
about what we hope will be

14
00:00:36,240 --> 00:00:39,180
the first of many meetings
that will help us understand

15
00:00:39,180 --> 00:00:41,520
how to leverage ABCD Data

16
00:00:41,520 --> 00:00:44,500
to inform prevention interventions.

17
00:00:44,500 --> 00:00:46,910
I'd now like to introduce Dr. Nora Volkow,

18
00:00:46,910 --> 00:00:49,260
director of the National
Institute on Drug Abuse,

19
00:00:49,260 --> 00:00:53,010
who conceived of the ABCD Study
more than seven years ago,

20
00:00:53,010 --> 00:00:55,320
and it was committed to
ensuring its findings

21
00:00:55,320 --> 00:00:58,213
are translated into practice, Dr. Volkow.

22
00:00:59,640 --> 00:01:00,830
- Dr. Dowling, thanks very much,

23
00:01:00,830 --> 00:01:03,010
and it's a pleasure for me to be here.

24
00:01:03,010 --> 00:01:06,050
And I want to again, commend Dr. Dowling

25
00:01:06,050 --> 00:01:08,550
for her incredible leadership,

26
00:01:08,550 --> 00:01:10,773
as well as adopt, Elizabeth Hoffman,

27
00:01:11,730 --> 00:01:16,430
and Dr. Bethany Deeds in
ensuring that the ABCD Study,

28
00:01:16,430 --> 00:01:19,610
not just the actually success,

29
00:01:19,610 --> 00:01:23,920
but that it continues
to inform on the impact

30
00:01:23,920 --> 00:01:28,920
and of what surrounds us and
its potential application

31
00:01:30,150 --> 00:01:32,690
as it relates to wellbeing
of these children,

32
00:01:32,690 --> 00:01:35,900
as they grow into adulthood.

33
00:01:35,900 --> 00:01:38,570
It has been a pleasure for me to work

34
00:01:38,570 --> 00:01:40,540

with the other institutes in partnership,

35
00:01:40,540 --> 00:01:42,780
and in particular with
the National Institute

36
00:01:42,780 --> 00:01:45,170
of Alcohol Abuse and Alcoholism,

37
00:01:45,170 --> 00:01:48,370
who has been an extraordinary
partner to ensure

38
00:01:48,370 --> 00:01:51,190
that the story proceeds
and taking advantage

39
00:01:51,190 --> 00:01:54,740
of the experience that
they had from launching

40
00:01:54,740 --> 00:01:58,410
smaller longitudinal stories
to investigate outcomes

41
00:01:58,410 --> 00:02:01,620
of drug taking among adolescents.

42
00:02:01,620 --> 00:02:04,280
I do want to also very much thank

43
00:02:05,131 --> 00:02:09,370
I'm not basically again,
Dr. Dowling and her team,

44
00:02:09,370 --> 00:02:13,360
but also Dr. Blanco and his
team in bringing together

45

00:02:13,360 --> 00:02:17,700
the first meeting in which we
are going to be brainstorming

46
00:02:17,700 --> 00:02:20,770
the opportunity that we have to use data

47
00:02:20,770 --> 00:02:25,770
as it emerged from the ABCD
in order to guide policies

48
00:02:25,870 --> 00:02:30,070
in prevention that can
result in the optimal outcome

49
00:02:30,070 --> 00:02:34,299
of children as they grow
into young adulthood.

50
00:02:34,299 --> 00:02:37,960
I think that we have a
tradition of valuing science,

51
00:02:37,960 --> 00:02:40,300
and we're sure, for science sake,

52
00:02:40,300 --> 00:02:42,530
of the value of intrinsic value

53
00:02:42,530 --> 00:02:45,320
of knowledge that helps us understand

54
00:02:45,320 --> 00:02:48,070
our environments, our realities.

55
00:02:48,070 --> 00:02:51,950
For this is not in any way
exclusionary with the opportunity

56

00:02:51,950 --> 00:02:54,380
of using that science and knowledge

57
00:02:54,380 --> 00:02:56,420
to improve our practices,

58
00:02:56,420 --> 00:02:59,160
and this is where this
meeting comes about.

59
00:02:59,160 --> 00:03:04,160
Yes, the ABCD has been
able to provide answers

60
00:03:05,440 --> 00:03:08,150
on issues that we know were very relevant,

61
00:03:08,150 --> 00:03:12,160
but it was unclear how
they ultimately affect

62
00:03:12,160 --> 00:03:14,390
an individual's brain development.

63
00:03:14,390 --> 00:03:18,250
Specifically, I think it
has been particularly rich

64
00:03:18,250 --> 00:03:21,030
in providing us a better understanding

65
00:03:21,030 --> 00:03:24,510
about how so adverse social environments,

66
00:03:24,510 --> 00:03:28,450
and income inequalities,
and neighborhood deprivation

67
00:03:28,450 --> 00:03:31,900

negatively impacts that
trajectories of children.

68
00:03:31,900 --> 00:03:36,170
How discrimination practices
that exist even in the,

69
00:03:36,170 --> 00:03:38,980
and I'd like to say the 21st century,

70
00:03:38,980 --> 00:03:42,660
and that are being actually,
maybe unconsciously

71
00:03:42,660 --> 00:03:45,260
and maybe in some instances consciously,

72
00:03:45,260 --> 00:03:49,270
negatively impacting the
interaction with young children

73
00:03:49,270 --> 00:03:53,680
in a way that it's actually
negatively affecting them

74
00:03:53,680 --> 00:03:55,690
has been profound.

75
00:03:55,690 --> 00:03:59,010
And there upon the value of these meetings

76
00:03:59,010 --> 00:04:00,630
that we have here,

77
00:04:00,630 --> 00:04:04,320
we can not ignore these data
that not just replicates

78
00:04:04,320 --> 00:04:07,810

our understanding about how
social and economic factors

79
00:04:07,810 --> 00:04:11,370
negatively affect the
outcomes of children,

80
00:04:11,370 --> 00:04:12,820
of diverse backgrounds,

81
00:04:12,820 --> 00:04:15,240
how some of these negative outcomes

82
00:04:15,240 --> 00:04:18,540
are particularly prominent in children

83
00:04:18,540 --> 00:04:20,880
of under represented group.

84
00:04:20,880 --> 00:04:25,880
How low income environments
can promote these changes,

85
00:04:26,200 --> 00:04:29,503
how discrimination and
stigma exacerbates them.

86
00:04:30,350 --> 00:04:33,850
There's a very valuable story
that was published in PLOS One

87
00:04:33,850 --> 00:04:35,750
also using ABCD Data

88
00:04:36,620 --> 00:04:39,920
that shows looking at
the number of insults

89
00:04:39,920 --> 00:04:43,570

during pregnancy, how
do they actually impact

90
00:04:43,570 --> 00:04:46,200
on the outcomes on the child?

91
00:04:46,200 --> 00:04:47,880
And they showed something that had been

92
00:04:47,880 --> 00:04:51,230
very eloquently identify for cancer,

93
00:04:51,230 --> 00:04:55,050
that noted that if you have one insult

94
00:04:55,050 --> 00:04:58,400
that may not be sufficient
to generate that cancer,

95
00:04:58,400 --> 00:04:59,780
but for a cancer to develop,

96
00:04:59,780 --> 00:05:04,000
you need to have a cumulative
effect of multiple insults.

97
00:05:04,000 --> 00:05:05,570
In this paper in PLOS One,

98
00:05:05,570 --> 00:05:08,760
they show exactly the same
situation as it relates

99
00:05:08,760 --> 00:05:12,310
to the development of mental illness

100
00:05:12,310 --> 00:05:16,197
that we have resilience to
accommodate for one insult.

101
00:05:16,197 --> 00:05:19,900
But as these insults accumulate,
the cumulative effects

102
00:05:19,900 --> 00:05:22,960
actually becomes harder
and harder to buffer,

103
00:05:22,960 --> 00:05:25,290
and that's where you start
to see psychopathology

104
00:05:25,290 --> 00:05:27,360
and negative outcomes.

105
00:05:27,360 --> 00:05:30,320
Today, this first
meeting we'll be focusing

106
00:05:30,320 --> 00:05:34,770
on trauma, and trauma,
again, has many faces.

107
00:05:34,770 --> 00:05:37,770
And I look forward to actually
hearing the discussions

108
00:05:37,770 --> 00:05:40,910
in terms of how to optimally measure it,

109
00:05:40,910 --> 00:05:45,910
and understanding too how
trauma can differently affect

110
00:05:47,470 --> 00:05:50,780
children development,
and what are the factors

111

00:05:50,780 --> 00:05:54,880
that can help offer it, and
what intervention we can do

112
00:05:54,880 --> 00:05:57,790
to actually maximize those factors

113
00:05:57,790 --> 00:06:01,100
in children that may
not get access to them.

114
00:06:01,100 --> 00:06:03,650
So I want to welcome everyone.

115
00:06:03,650 --> 00:06:05,220
I want to actually thank you

116
00:06:05,220 --> 00:06:07,680
for your willingness in participating.

117
00:06:07,680 --> 00:06:10,320
This is a live meeting.

118
00:06:10,320 --> 00:06:11,790
We learn from each other.

119
00:06:11,790 --> 00:06:15,510
We have an extraordinary
opportunity in science

120
00:06:15,510 --> 00:06:19,030
that has enabled us to
carry on the ABCD Data,

121
00:06:19,030 --> 00:06:21,300
but also make it accessible to everyone

122
00:06:21,300 --> 00:06:24,570
so that it can be take

advantage of the complexity

123
00:06:24,570 --> 00:06:28,430
that data brings forward and
how to use it for knowledge.

124
00:06:28,430 --> 00:06:31,980
But importantly, our
commitment to use knowledge,

125
00:06:31,980 --> 00:06:35,270
to translate it into
practices and policies

126
00:06:35,270 --> 00:06:38,660
that are likely to prevent
those and protect those

127
00:06:38,660 --> 00:06:42,270
that are most vulnerable,
and maximize the success

128
00:06:42,270 --> 00:06:43,103
of every child.

129
00:06:43,103 --> 00:06:45,500
So thanks very much, and again,

130
00:06:45,500 --> 00:06:49,020
thanks very much to Dr.
Dowling and Dr. Blanco

131
00:06:49,020 --> 00:06:51,730
and their teams for making this possible.

132
00:06:51,730 --> 00:06:54,893
And I then turn back the
microphone to you, Gaya.

133

00:06:55,840 --> 00:06:58,590
- Thank you, I would now like to introduce

134
00:06:58,590 --> 00:06:59,840
Dr. Elizabeth Hoffman,

135
00:06:59,840 --> 00:07:03,130
who is a scientific program
manager with the ABCD Study

136
00:07:03,130 --> 00:07:05,260
here at NIDA, who will give you

137
00:07:05,260 --> 00:07:07,703
an overview of the study, Elizabeth.

138
00:07:09,840 --> 00:07:11,820
- Thank you, Gaya, and thanks everybody

139
00:07:11,820 --> 00:07:13,600
for joining us today.

140
00:07:13,600 --> 00:07:16,860
I'm gonna give you just a brief
overview of the ABCD Study.

141
00:07:16,860 --> 00:07:20,360
I'll share with you
the study's objectives,

142
00:07:20,360 --> 00:07:21,970
the methodologies of the study,

143
00:07:21,970 --> 00:07:24,890
and briefly review sort
of at a high level,

144
00:07:24,890 --> 00:07:26,830
the assessment protocols,

145
00:07:26,830 --> 00:07:29,080
as well as do a slightly deeper dive

146
00:07:29,080 --> 00:07:30,960
on the particular measures

147
00:07:30,960 --> 00:07:33,140
that we're gonna be focusing on today

148
00:07:33,140 --> 00:07:35,120
that you hear a lot about in the panels

149
00:07:36,080 --> 00:07:40,170
regarding our constructs,
trauma, and self-regulation

150
00:07:40,170 --> 00:07:41,690
that have particular relevance

151
00:07:41,690 --> 00:07:44,603
for potential intervention opportunities.

152
00:07:47,360 --> 00:07:50,480
So the ABCD Study is a
longitudinal investigation

153
00:07:50,480 --> 00:07:54,850
of close to 12,000 youth
beginning at ages nine and 10.

154
00:07:54,850 --> 00:07:57,980
And the objective is to follow
them through early adulthood

155
00:07:57,980 --> 00:07:59,190
to assess factors

156

00:07:59,190 --> 00:08:02,130
that influence individual
brain development trajectories,

157
00:08:02,130 --> 00:08:04,230
and functional outcomes.

158
00:08:04,230 --> 00:08:06,110
The study launched its recruitment phase

159
00:08:06,110 --> 00:08:09,440
in September of 2016 with an initial goal

160
00:08:09,440 --> 00:08:11,290
of retaining about 10,000 youth,

161
00:08:11,290 --> 00:08:14,823
so we're pretty excited to
have exceeded that mark.

162
00:08:16,210 --> 00:08:17,310
It's a collaboration

163
00:08:17,310 --> 00:08:21,030
with many NIH institutes
and centers, shown here,

164
00:08:21,030 --> 00:08:24,070
as well as the Centers for
Disease Control and Prevention,

165
00:08:24,070 --> 00:08:25,800
and the National Science Foundation.

166
00:08:25,800 --> 00:08:30,600
So we're really thrilled to
have such a broad collaboration

167
00:08:30,600 --> 00:08:31,663

in this endeavor.

168
00:08:34,660 --> 00:08:37,653
And these are some of the
studies research objectives.

169
00:08:38,520 --> 00:08:42,233
ABCD was really designed to
answer many more questions

170
00:08:42,233 --> 00:08:45,410
than what you see here, but
I wanted to give you a sense

171
00:08:45,410 --> 00:08:47,110
of where we started.

172
00:08:47,110 --> 00:08:48,150
So when the study began,

173
00:08:48,150 --> 00:08:52,160
we set out to describe individual
developmental trajectories

174
00:08:52,160 --> 00:08:54,010
and the factors that can affect them.

175
00:08:54,010 --> 00:08:56,450
So for example, brain
development trajectories,

176
00:08:56,450 --> 00:08:58,973
cognitive, emotional academic, and so on.

177
00:09:00,030 --> 00:09:01,840
And to develop national standards

178
00:09:01,840 --> 00:09:03,883
of healthy brain development.

179
00:09:05,460 --> 00:09:07,070
We're also interested in investigating

180
00:09:07,070 --> 00:09:09,740
the roles and interaction
of genes and the environment

181
00:09:09,740 --> 00:09:11,120
on adolescent development.

182
00:09:11,120 --> 00:09:13,360
And to do this, we've enriched the sample

183
00:09:13,360 --> 00:09:14,560
with a twins cohort,

184
00:09:14,560 --> 00:09:17,073
which I'll briefly describe
in just a few minutes.

185
00:09:18,210 --> 00:09:21,080
We're also interested in
studying how physical activity

186
00:09:21,080 --> 00:09:23,390
sleep, screen time, sports injuries,

187
00:09:23,390 --> 00:09:26,100
and many other life experiences
affect brain development

188
00:09:26,100 --> 00:09:28,100
and other health outcomes.

189
00:09:28,100 --> 00:09:31,250
And because ABCD is such
a large prospective study,

190
00:09:31,250 --> 00:09:32,980
we're able to capture the impact

191
00:09:32,980 --> 00:09:35,070
of life events and mental illnesses,

192
00:09:35,070 --> 00:09:38,040
for example, as they
emerge during adolescence.

193
00:09:38,040 --> 00:09:42,240
So we wanna examine the factors
that influence the onset,

194
00:09:42,240 --> 00:09:44,960
the course, and the severity
of mental illnesses,

195
00:09:44,960 --> 00:09:47,720
and to understand the
relationship between mental health

196
00:09:47,720 --> 00:09:48,670
and substance use.

197
00:09:48,670 --> 00:09:51,176
And so we chose to begin this study prior

198
00:09:51,176 --> 00:09:53,740
to the onset of these behaviors,

199
00:09:53,740 --> 00:09:56,210
because we really wanna
be able to look at youth

200
00:09:56,210 --> 00:09:58,230
before they initiate use,

201

00:09:58,230 --> 00:10:01,100
and then to follow them through
the period of greatest risk,

202
00:10:01,100 --> 00:10:04,650
and understand the impact
of this risky period

203
00:10:04,650 --> 00:10:06,393
on developmental trajectories.

204
00:10:10,950 --> 00:10:15,430
There've been approximately
around 150 publications to date,

205
00:10:15,430 --> 00:10:16,600
using ABCD Data.

206
00:10:16,600 --> 00:10:19,750
And these are publications
both by the ABCD investigators,

207
00:10:19,750 --> 00:10:21,803
as well as external scientists.

208
00:10:22,700 --> 00:10:25,140
The blue boxes that you
see here are what we see

209
00:10:25,140 --> 00:10:26,820
the data being used for currently

210
00:10:26,820 --> 00:10:29,630
to investigate many of
the research questions

211
00:10:29,630 --> 00:10:30,700
that I showed you a moment ago,

212

00:10:30,700 --> 00:10:34,000
as well as additional questions
that importantly reflect

213
00:10:34,000 --> 00:10:36,470
experiences and environmental factors

214
00:10:36,470 --> 00:10:38,770
that impact adolescents,

215
00:10:38,770 --> 00:10:41,250
for example, race and discrimination,

216
00:10:41,250 --> 00:10:42,877
community and neighborhood factors,

217
00:10:42,877 --> 00:10:46,160
and their impact on mental
health and cognitive performance,

218
00:10:46,160 --> 00:10:48,290
and of course the COVID-19 pandemic.

219
00:10:48,290 --> 00:10:51,480
And this really highlights that
unique opportunity and value

220
00:10:51,480 --> 00:10:56,287
of ABCD that we're able to
look at adolescent development,

221
00:10:56,287 --> 00:10:58,737
and the impact on their
development in real time.

222
00:10:59,940 --> 00:11:02,790
We're also seeing publications
that pool ABCD Data

223

00:11:02,790 --> 00:11:04,150
with other large datasets,

224
00:11:04,150 --> 00:11:06,390
like the UK Biobank, and publications

225
00:11:06,390 --> 00:11:09,590
on development of data
analysis, tools and methodology,

226
00:11:09,590 --> 00:11:12,920
and issues around estimation
of meaningful associations,

227
00:11:12,920 --> 00:11:15,493
including effect sizes and
control of co-variants.

228
00:11:16,690 --> 00:11:19,210
The green boxes below
are how we expect results

229
00:11:19,210 --> 00:11:21,660
from the ABCD Study data to inform

230
00:11:21,660 --> 00:11:23,510
other types of studies in the future,

231
00:11:23,510 --> 00:11:26,133
including target and
prevention, intervention work.

232
00:11:29,570 --> 00:11:31,500
So how have we done this in ABCD?

233
00:11:31,500 --> 00:11:34,930
We have 21 research
sites across the country,

234

00:11:34,930 --> 00:11:36,130
and this is very small, this map here

235
00:11:36,130 --> 00:11:38,700
where you can see little red pins

236
00:11:38,700 --> 00:11:39,950
distributed around the country,

237
00:11:39,950 --> 00:11:42,000
and those represent each of our 21 sites.

238
00:11:42,870 --> 00:11:44,570
We have mostly done this through

239
00:11:44,570 --> 00:11:47,280
a school-based recruitment strategy.

240
00:11:47,280 --> 00:11:49,860
We identified catchment areas

241
00:11:49,860 --> 00:11:51,310
around each of the research sites,

242
00:11:51,310 --> 00:11:53,800
and then from there
schools were identified

243
00:11:53,800 --> 00:11:55,470
within those areas.

244
00:11:55,470 --> 00:11:57,540
And then all the students
within those schools

245
00:11:57,540 --> 00:12:00,430
who were ages nine and 10,
were invited to participate

246
00:12:00,430 --> 00:12:02,300
in the ABCD Study.

247
00:12:02,300 --> 00:12:05,350
And we were able to adjust
for demographic diversity,

248
00:12:05,350 --> 00:12:07,700
based on who had enrolled

249
00:12:07,700 --> 00:12:09,267
because the enrollment
period lasted two years.

250
00:12:09,267 --> 00:12:11,000
And we were able to do some tweaks,

251
00:12:11,000 --> 00:12:14,410
and do our best to arrive
at a representative sample

252
00:12:14,410 --> 00:12:17,410
of the United States population
of nine and 10 year olds.

253
00:12:17,410 --> 00:12:20,840
We also enriched the poorer
families with multiple births

254
00:12:20,840 --> 00:12:21,673
twins and triplets.

255
00:12:21,673 --> 00:12:24,870
And to do this we have
four dedicated twin sites

256
00:12:24,870 --> 00:12:28,560
in Virginia, and Missouri,
Colorado, and Minnesota.

257
00:12:28,560 --> 00:12:29,880
And we have, in addition

258
00:12:29,880 --> 00:12:31,540
to the regular school-based recruitment,

259
00:12:31,540 --> 00:12:35,160
those sites have made
use of twin registries

260
00:12:35,160 --> 00:12:37,280
to ensure that we have a large proportion

261
00:12:37,280 --> 00:12:39,603
of multiple birth families
so that we can study

262
00:12:39,603 --> 00:12:41,623
gene by environment interactions.

263
00:12:44,700 --> 00:12:46,863
So what does the ABCD cohort look like?

264
00:12:49,410 --> 00:12:54,410
This is graphics
displaying the demographics

265
00:12:55,160 --> 00:12:57,330
of participants at baseline.

266
00:12:57,330 --> 00:12:58,893
So again, this is around age nine and 10.

267
00:12:58,893 --> 00:13:00,650
And you see here on the top left,

268
00:13:00,650 --> 00:13:04,770

we have about even representation
of male and female.

269
00:13:04,770 --> 00:13:08,183
We also have even representation
of nine and 10 year olds.

270
00:13:09,140 --> 00:13:11,270
We set our recruitment targets

271
00:13:11,270 --> 00:13:15,350
based on the US census Bureau's
American community survey

272
00:13:15,350 --> 00:13:18,623
and those targets are
here over to the right.

273
00:13:22,120 --> 00:13:27,120
On the lower panel, we
have put here our proxies

274
00:13:27,330 --> 00:13:29,510
for measuring socioeconomic status,

275
00:13:29,510 --> 00:13:32,460
here on the left side,
highest household education,

276
00:13:32,460 --> 00:13:34,743
and on the right household income.

277
00:13:36,120 --> 00:13:40,893
And you can see here that
compared to the ACS targets,

278
00:13:42,850 --> 00:13:47,300
we have over-represented higher education,

279

00:13:47,300 --> 00:13:48,900
household education, and income.

280
00:13:51,360 --> 00:13:53,130
But we also have significant numbers

281
00:13:53,130 --> 00:13:54,470
in the smaller categories,

282
00:13:54,470 --> 00:13:57,363
and that's really due to
the large cohort of ABCD.

283
00:13:58,320 --> 00:13:59,370
On the right panel,

284
00:13:59,370 --> 00:14:02,530
family type by employment
and household size.

285
00:14:02,530 --> 00:14:05,200
You can also see that we've
compared to the ACS targets,

286
00:14:05,200 --> 00:14:08,580
we've overrepresented and
then married with two members

287
00:14:08,580 --> 00:14:10,430
of a household in the labor force,

288
00:14:10,430 --> 00:14:13,800
but household size is very
similar to the ACS targets.

289
00:14:13,800 --> 00:14:15,990
So I point this out just
to show you that overall

290

00:14:15,990 --> 00:14:19,290
by and large, we are closely aligned

291
00:14:19,290 --> 00:14:20,850
with the ACS targets.

292
00:14:20,850 --> 00:14:23,260
Which really allows for extrapolating

293
00:14:23,260 --> 00:14:25,410
to the general population
of nine and ten-year-olds,

294
00:14:25,410 --> 00:14:28,740
and to help with this in
our annual data releases,

295
00:14:28,740 --> 00:14:31,280
which I'll describe in a
moment, we have made available

296
00:14:31,280 --> 00:14:34,670
propensity weights based
on the ACF pools data

297
00:14:34,670 --> 00:14:36,720
from 2011 to 2015

298
00:14:37,690 --> 00:14:40,360
that really allow you to do
this kind of extrapolation

299
00:14:40,360 --> 00:14:42,510
and to extrapolate estimates from ABCD

300
00:14:42,510 --> 00:14:44,243
to the general population.

301
00:14:47,090 --> 00:14:49,610

So what kinds of data are we collecting?

302
00:14:49,610 --> 00:14:51,210
I'm gonna in the next couple of slides,

303
00:14:51,210 --> 00:14:53,650
just give you a rather
high-level overview,

304
00:14:53,650 --> 00:14:56,080
just to highlight the breadth
of the measures collected

305
00:14:56,080 --> 00:14:59,950
and ABCD and to show you the
multiple domains of assessments

306
00:14:59,950 --> 00:15:01,103
that we have covered.

307
00:15:03,560 --> 00:15:04,860
And before I do that,

308
00:15:04,860 --> 00:15:08,140
I just wanna direct you
to the protocols page

309
00:15:08,140 --> 00:15:10,570
on the website and someone
is putting the link

310
00:15:10,570 --> 00:15:11,660
to the website in the chat,

311
00:15:11,660 --> 00:15:13,380
so you should see that.

312
00:15:13,380 --> 00:15:18,020
This is on our abcdstudy.org

website in the Scientist page,

313
00:15:18,020 --> 00:15:19,830
where there's a Protocols tab

314
00:15:19,830 --> 00:15:22,130
and you can see up to date information on,

315
00:15:22,130 --> 00:15:23,900
detailed information on the Protocols,

316
00:15:23,900 --> 00:15:27,880
and the the yearly assessment for ABCD.

317
00:15:27,880 --> 00:15:30,460
And so we have multiple
domains of assessment,

318
00:15:30,460 --> 00:15:32,550
physical health, mental
health, substance use,

319
00:15:32,550 --> 00:15:33,787
and biospecimens are reflected here,

320
00:15:33,787 --> 00:15:36,180
and there are a few
more on the next slide.

321
00:15:36,180 --> 00:15:40,400
And many of the questions
we asked both of the child

322
00:15:40,400 --> 00:15:41,380
and of the parent.

323
00:15:41,380 --> 00:15:43,543
So we want to, in some instances,

324
00:15:44,720 --> 00:15:47,340
get inter-rater reliability
or see differences

325
00:15:47,340 --> 00:15:50,820
in the child and parent report
of some of these variables.

326
00:15:50,820 --> 00:15:51,950
But then there are also questions

327
00:15:51,950 --> 00:15:54,173
that, of course, we
want to get perspectives

328
00:15:55,051 --> 00:15:57,250
uniquely from the child
or from the parents.

329
00:15:57,250 --> 00:15:59,910
So in the case of a child,
looking at substance use,

330
00:15:59,910 --> 00:16:03,710
we may be interested in
things like peer influences,

331
00:16:03,710 --> 00:16:07,490
expectancies, perceived
harm, peer tolerance,

332
00:16:07,490 --> 00:16:10,580
and these kinds of things
become more critical,

333
00:16:10,580 --> 00:16:14,070
as the youth moves through adolescents.

334
00:16:14,070 --> 00:16:17,210

We have a whole host of
mental health assessments

335
00:16:17,210 --> 00:16:19,830
that we ask of both the
child and the parent.

336
00:16:19,830 --> 00:16:23,300
We also collect family
history, demographics,

337
00:16:23,300 --> 00:16:24,963
medical history, those kinds of things.

338
00:16:24,963 --> 00:16:27,200
Then we have a lot of opportunities

339
00:16:27,200 --> 00:16:30,990
for looking at contextual
variables and histories

340
00:16:30,990 --> 00:16:35,153
to then evaluate more current issues

341
00:16:37,570 --> 00:16:39,160
going on in the adolescence development,

342
00:16:39,160 --> 00:16:42,190
as well as correlating
with cognitive factors

343
00:16:42,190 --> 00:16:43,943
and neural network activity.

344
00:16:46,980 --> 00:16:50,190
And just a few other assessment domains

345
00:16:50,190 --> 00:16:51,600
that I wanted to point out to you.

346
00:16:51,600 --> 00:16:55,000
We have several assessments

347
00:16:56,900 --> 00:16:59,210
in the culture environment domain,

348
00:16:59,210 --> 00:17:03,791
including ethnic identity,
acculturation, discrimination.

349
00:17:03,791 --> 00:17:05,500
We looked at neighborhoods safety.

350
00:17:05,500 --> 00:17:08,280
We looked at child's perception
of parental monitoring,

351
00:17:08,280 --> 00:17:10,380
school and family environments, and so on.

352
00:17:11,270 --> 00:17:12,890
We have a neurocognition protocol,

353
00:17:12,890 --> 00:17:13,723
this is of course,

354
00:17:13,723 --> 00:17:15,990
just this and also in
our imaging protocol,

355
00:17:15,990 --> 00:17:18,200
are just asked of the youth.

356
00:17:18,200 --> 00:17:21,720
We look at language intention
and cognitive control.

357

00:17:21,720 --> 00:17:24,213
We have several measures
looking at impulsivity,

358
00:17:25,070 --> 00:17:27,820
motion processing, social influences,

359
00:17:27,820 --> 00:17:30,170
and even a math assessment
we ask of the youth.

360
00:17:31,600 --> 00:17:34,270
And then we also have here at the bottom

361
00:17:34,270 --> 00:17:36,230
novel tech and linked external data.

362
00:17:36,230 --> 00:17:39,690
So we have a screen time
assessment that made administer

363
00:17:39,690 --> 00:17:41,050
to both the parents and the youth

364
00:17:41,050 --> 00:17:43,530
to assess not just how much
time they're using screens,

365
00:17:43,530 --> 00:17:45,200
but what they're doing on screens,

366
00:17:45,200 --> 00:17:48,480
you know, video games versus
social media, for example.

367
00:17:48,480 --> 00:17:50,010
We also have Fitbit protocol.

368
00:17:50,010 --> 00:17:52,180

So youth get to take home a Fitbit,

369
00:17:52,180 --> 00:17:56,820
and real-time actigraphy
data are collected that way.

370
00:17:56,820 --> 00:17:59,280
And then we also have a variety

371
00:17:59,280 --> 00:18:01,850
of environmental context variables

372
00:18:01,850 --> 00:18:03,773
that we're able to link to through,

373
00:18:04,710 --> 00:18:06,570
linking to external datasets.

374
00:18:06,570 --> 00:18:08,410
So looking at, for example,

375
00:18:08,410 --> 00:18:11,560
neighborhood air pollution,
other neighborhood indices,

376
00:18:11,560 --> 00:18:13,820
neighborhood deprivation index indices,

377
00:18:13,820 --> 00:18:16,590
as well as school performance data,

378
00:18:16,590 --> 00:18:21,590
which will be available in
the upcoming 4.0 data release.

379
00:18:23,360 --> 00:18:27,220
So this has to do with schools
that the youth in the study

380
00:18:27,220 --> 00:18:30,560
are attending, and the
performance of those schools,

381
00:18:30,560 --> 00:18:34,620
as well as the performance
of the wider school district

382
00:18:34,620 --> 00:18:36,303
on a variety of levels.

383
00:18:40,770 --> 00:18:42,170
I also just wanted to point out

384
00:18:42,170 --> 00:18:43,260
that many of the assessments,

385
00:18:43,260 --> 00:18:45,143
of course not the neuroimaging protocol,

386
00:18:45,143 --> 00:18:46,630
or any of the questionnaires

387
00:18:46,630 --> 00:18:48,630
and the neurocognitive assessments were,

388
00:18:49,760 --> 00:18:52,530
we designed for remote administration

389
00:18:52,530 --> 00:18:54,080
during the COVID-19 pandemic.

390
00:18:54,080 --> 00:18:56,490
But of course, many of the sites,

391
00:18:56,490 --> 00:18:58,560
all of the sites at
various times were closed,

392
00:18:58,560 --> 00:19:02,373
and so participants were
completing assessments from home.

393
00:19:05,310 --> 00:19:07,080
Related to today's discussion,

394
00:19:07,080 --> 00:19:10,330
the ABCD protocol captures self-regulation

395
00:19:10,330 --> 00:19:11,690
and cognitive control,

396
00:19:11,690 --> 00:19:14,060
as well as adverse childhood experiences.

397
00:19:14,060 --> 00:19:16,960
At the individual family
peer and community levels

398
00:19:16,960 --> 00:19:19,940
from both the youth and
parents and guardians.

399
00:19:19,940 --> 00:19:23,233
So I just wanted to call
out the measures we have

400
00:19:23,233 --> 00:19:25,500
from these multiple assessment domains

401
00:19:25,500 --> 00:19:29,010
that measure these self-regulation
and trauma constructs.

402
00:19:29,010 --> 00:19:31,310
And you will hear a lot more about these

403
00:19:31,310 --> 00:19:33,700
during the panel presentations.

404
00:19:33,700 --> 00:19:36,790
But for example, mental
health neurocognition,

405
00:19:36,790 --> 00:19:39,010
and brain imaging, all of those domains,

406
00:19:39,010 --> 00:19:42,150
we have multiple assessments that relate

407
00:19:42,150 --> 00:19:46,210
to capturing this self-regulation
construct in the youth.

408
00:19:46,210 --> 00:19:48,850
And then capturing trauma and adversity,

409
00:19:48,850 --> 00:19:51,460
we have several assessments
in the mental health domain

410
00:19:51,460 --> 00:19:55,670
from KSADS modules, as
well as the ASEBA system,

411
00:19:55,670 --> 00:19:57,540
child behavior, checklist, and so on.

412
00:19:57,540 --> 00:19:58,680
And then multiple assessments

413
00:19:58,680 --> 00:20:00,690
in culture and environment, importantly.

414
00:20:00,690 --> 00:20:02,050

So we'll look at family conflict,

415
00:20:02,050 --> 00:20:04,893
as well as moving out to
the neighborhood level.

416
00:20:05,820 --> 00:20:08,610
We also have a children's
support of parental behavior.

417
00:20:08,610 --> 00:20:11,920
So we look at children's
perceptions of parental monitoring

418
00:20:11,920 --> 00:20:15,110
and neglect, as well as school
risk and protective factors.

419
00:20:15,110 --> 00:20:18,530
And again, the parents
will go into these measures

420
00:20:18,530 --> 00:20:19,980
in a lot more detail for you.

421
00:20:23,513 --> 00:20:24,680
And this is a timeline,

422
00:20:24,680 --> 00:20:27,720
just a really high-level
overview of how the protocol is

423
00:20:27,720 --> 00:20:30,550
administered to youth and to the parents.

424
00:20:30,550 --> 00:20:33,940
We, again, enrolled at ages nine and 10.

425
00:20:33,940 --> 00:20:35,840

And at that time at their baseline visit,

426
00:20:35,840 --> 00:20:39,050
they participated in an extensive battery,

427
00:20:39,050 --> 00:20:41,070
which lasted about six to seven hours

428
00:20:41,070 --> 00:20:42,440
and included neuroimaging,

429
00:20:42,440 --> 00:20:45,350
as well as all of the other assessments

430
00:20:45,350 --> 00:20:47,200
that I just reviewed with you.

431
00:20:47,200 --> 00:20:49,530
It's about a three-hour
visit for the parents.

432
00:20:49,530 --> 00:20:50,980
So it's quite a while.

433
00:20:50,980 --> 00:20:54,540
And this rich assessment
is every other year.

434
00:20:54,540 --> 00:20:56,750
So it's all of the even year visits

435
00:20:56,750 --> 00:20:59,610
is when the complete
protocol is administered.

436
00:20:59,610 --> 00:21:02,420
And then every other year, the odd years,

437

00:21:02,420 --> 00:21:05,100
are so many of the others
have many of the assessments

438
00:21:05,100 --> 00:21:08,670
are repeated at that
time, but many are not.

439
00:21:08,670 --> 00:21:11,370
For example, the neuroimaging
protocol is only administered

440
00:21:11,370 --> 00:21:12,630
every other year.

441
00:21:12,630 --> 00:21:15,330
We also have a phone
check-in every six months,

442
00:21:15,330 --> 00:21:17,890
so that there's fairly
constant check-- [Instructor]

443
00:21:17,890 --> 00:21:20,070
with the kids and the parents,

444
00:21:20,070 --> 00:21:25,070
as well as yearly
in-person, or more recently,

445
00:21:25,620 --> 00:21:27,853
remote visits to complete the assessments.

446
00:21:32,310 --> 00:21:34,570
We also, as I mentioned,
a few minutes ago,

447
00:21:34,570 --> 00:21:36,820
have an opportunity to assess the impact

448
00:21:36,820 --> 00:21:39,170
of the COVID-19 pandemic

449
00:21:39,170 --> 00:21:43,283
on the adolescents in the ABCD Study.

450
00:21:44,120 --> 00:21:45,700
We have an opportunity with ABCD

451
00:21:45,700 --> 00:21:49,400
since we have so much data
collected pre-pandemic

452
00:21:49,400 --> 00:21:53,600
to look at long-term trajectories
of the impact of COVID-19.

453
00:21:53,600 --> 00:21:55,680
And that's depicted here at the top

454
00:21:58,240 --> 00:22:00,630
at the beginning of the
ABCB data collection period.

455
00:22:00,630 --> 00:22:03,330
This is sort of the
pre-pandemic time period

456
00:22:03,330 --> 00:22:05,500
where we initiated the baseline protocol

457
00:22:05,500 --> 00:22:07,960
and the one-year followup protocol

458
00:22:09,785 --> 00:22:11,500
beginnings of a two
year follow-up protocol,

459

00:22:11,500 --> 00:22:13,340
and then COVID-19 hits.

460
00:22:13,340 --> 00:22:16,120
So then we were in this
acute pandemic phase,

461
00:22:16,120 --> 00:22:20,260
and then moving through
to the four-year followup,

462
00:22:20,260 --> 00:22:24,020
again, still within the
acute pandemic phase.

463
00:22:24,020 --> 00:22:26,820
And now we're moving into
this long-term impact phase.

464
00:22:26,820 --> 00:22:29,257
We're really able to
start to assess the impact

465
00:22:29,257 --> 00:22:33,433
of the pandemic on long-term
trajectories on development.

466
00:22:36,530 --> 00:22:39,510
And this is how we've
done this assessment.

467
00:22:39,510 --> 00:22:42,420
So we initiated a subsidy of ADCB

468
00:22:42,420 --> 00:22:47,110
to examine, to really drill
down on various factors

469
00:22:47,110 --> 00:22:50,820
that are impacting youth

within the context of COVID-19.

470
00:22:50,820 --> 00:22:53,650
So we administered monthly questionnaires

471
00:22:53,650 --> 00:22:56,510
to the participants, to all
the participants and families,

472
00:22:56,510 --> 00:22:59,937
and many of the questions are here, right,

473
00:22:59,937 --> 00:23:03,240
part of the domains that were
covered in the questionnaire.

474
00:23:03,240 --> 00:23:07,490
And we also had a Fitbit
extension protocol.

475
00:23:07,490 --> 00:23:11,330
So participants had been, as
part of the Fitbit protocol

476
00:23:11,330 --> 00:23:13,010
and the regular ABCD protocol,

477
00:23:13,010 --> 00:23:14,820
they were given Fitbits for three weeks,

478
00:23:14,820 --> 00:23:17,330
but those who had them at
the time of the pandemic

479
00:23:17,330 --> 00:23:18,540
were able to keep them,

480
00:23:18,540 --> 00:23:21,900
so we were able to collect

further data from them.

481
00:23:21,900 --> 00:23:26,210
And we also mapped variation
in community impact

482
00:23:26,210 --> 00:23:29,020
to correlate with the questionnaire data.

483
00:23:29,020 --> 00:23:32,900
And so these were existing
datasets that we linked to,

484
00:23:32,900 --> 00:23:35,260
to correlate with the data we collected

485
00:23:35,260 --> 00:23:36,620
from the participants,
and those are listed here.

486
00:23:36,620 --> 00:23:39,300
So we looked at, for example, prevalence,

487
00:23:39,300 --> 00:23:42,720
COVID-19 prevalence relative
to population density,

488
00:23:42,720 --> 00:23:46,190
as well as the implementation
of state and local policies,

489
00:23:46,190 --> 00:23:49,700
and social distancing based
on cell phone movement,

490
00:23:49,700 --> 00:23:51,843
as well as changes in unemployment.

491
00:23:52,800 --> 00:23:56,080

So we were able to collect
these data on a monthly basis

492
00:23:56,080 --> 00:24:01,080
and linked to these existing
community impact data

493
00:24:01,320 --> 00:24:02,683
on a real-time basis.

494
00:24:04,210 --> 00:24:08,030
We also captured experiences
with civil unrest,

495
00:24:08,030 --> 00:24:11,070
so to capture demonstrations and protests

496
00:24:11,070 --> 00:24:13,330
that were going on in many of the cities

497
00:24:13,330 --> 00:24:14,770
that participants lived in.

498
00:24:14,770 --> 00:24:16,960
And this was all happening
right around the time

499
00:24:16,960 --> 00:24:20,300
that we all went into lockdown
as you all probably recall.

500
00:24:20,300 --> 00:24:21,980
And so this was, we wanted to make sure

501
00:24:21,980 --> 00:24:24,560
that we captured this as well.

502
00:24:24,560 --> 00:24:27,610
And so I think around a third

of their monthly assessments

503
00:24:27,610 --> 00:24:28,960
these questions were added.

504
00:24:32,400 --> 00:24:33,330
So switching gears,

505
00:24:33,330 --> 00:24:34,600
I want us to talk a little bit

506
00:24:34,600 --> 00:24:37,890
about the data sharing
opportunities that we have in ABCD.

507
00:24:39,493 --> 00:24:41,780
So a really powerful feature of this study

508
00:24:41,780 --> 00:24:44,070
is that we have an open science model,

509
00:24:44,070 --> 00:24:46,100
making data available to researchers

510
00:24:46,100 --> 00:24:48,150
around the world as fast as possible

511
00:24:48,150 --> 00:24:51,280
via the NIMH Data Archive.

512
00:24:51,280 --> 00:24:55,840
I urge you to look at the
website, which is again,

513
00:24:55,840 --> 00:24:57,970
abcdstudy.org, the Data Sharing page,

514
00:24:57,970 --> 00:25:00,080

where we have a lot of information

515
00:25:00,080 --> 00:25:01,510
that we keep pretty up to date

516
00:25:01,510 --> 00:25:05,323
on data that are available
for you to access on the NDA.

517
00:25:06,170 --> 00:25:08,400
So we have fast-track brain imaging data,

518
00:25:08,400 --> 00:25:09,990
which are raw DICOM images

519
00:25:09,990 --> 00:25:12,720
that are released on an ongoing basis.

520
00:25:12,720 --> 00:25:15,140
And then we also have
full curated releases,

521
00:25:15,140 --> 00:25:16,583
which includes all of the data

522
00:25:16,583 --> 00:25:18,287
that we've been speaking about.

523
00:25:18,287 --> 00:25:20,660
And these data are made available yearly.

524
00:25:20,660 --> 00:25:23,610
Data release 3.0 is the
current data release.

525
00:25:23,610 --> 00:25:27,640
And this includes the first
early longitudinal data

526
00:25:27,640 --> 00:25:29,420
in addition to all of the baseline data.

527
00:25:29,420 --> 00:25:31,900
So each of the releases are cumulative.

528
00:25:31,900 --> 00:25:34,050
So all of the data that are
available up to that point

529
00:25:34,050 --> 00:25:38,510
are made available again,
as well as new data.

530
00:25:38,510 --> 00:25:41,540
So we have early one-year followup data

531
00:25:41,540 --> 00:25:43,693
in the current data release we know.

532
00:25:44,840 --> 00:25:48,342
Data release 4.0 will be
coming out very shortly,

533
00:25:48,342 --> 00:25:49,810
so that's something to look out for.

534
00:25:49,810 --> 00:25:53,130
And then we also have a
statistical analysis portal

535
00:25:53,130 --> 00:25:55,960
called the Data Exploration
and Analysis Portal,

536
00:25:55,960 --> 00:25:59,160
available again on the NIMH Data Archive.

537

00:25:59,160 --> 00:26:01,720
And the DEAP allows you to test hypotheses

538
00:26:01,720 --> 00:26:04,330
associated with all of the data in ABCD,

539
00:26:04,330 --> 00:26:06,190
in a way that takes into account

540
00:26:06,190 --> 00:26:08,330
the nesting design of ABCD,

541
00:26:08,330 --> 00:26:09,910
and statistical modeling needed

542
00:26:09,910 --> 00:26:12,850
to appropriately analyze the data.

543
00:26:12,850 --> 00:26:15,150
And there are about a
100,000 shared observations

544
00:26:15,150 --> 00:26:17,090
available for each participant.

545
00:26:17,090 --> 00:26:20,330
And so it's possible to do
multi-level regression models

546
00:26:20,330 --> 00:26:24,020
that are really suitable
for the ABCD design.

547
00:26:24,020 --> 00:26:27,613
So that's available on
the NIMH Data Archives.

548
00:26:29,070 --> 00:26:30,650
I also wanted to point out

549
00:26:30,650 --> 00:26:33,720
that we have several DEAP tutorials

550
00:26:33,720 --> 00:26:36,060
that are available on ADCB website,

551
00:26:36,060 --> 00:26:37,520
again, on the Data Sharing page.

552
00:26:37,520 --> 00:26:40,860
I think the link is in the chat for you.

553
00:26:40,860 --> 00:26:43,150
So I encourage you to check
those out each tutorial,

554
00:26:43,150 --> 00:26:44,050
it's just a few minutes,

555
00:26:44,050 --> 00:26:45,400
and it gives you a nice overview

556
00:26:45,400 --> 00:26:49,100
of how this statistical
portal can work for you,

557
00:26:49,100 --> 00:26:51,480
and so you'll see how to explore the data,

558
00:26:51,480 --> 00:26:54,783
and how to form your own questions
and interrogate the data.

559
00:26:57,900 --> 00:27:01,340
And this is just a plan
for the data releases,

560

00:27:01,340 --> 00:27:03,440
so you can see sort of historically

561
00:27:03,440 --> 00:27:07,500
what data has been released
and how we're organizing

562
00:27:07,500 --> 00:27:09,340
the data for future releases.

563
00:27:09,340 --> 00:27:11,510
So again, in the red
box is where we are now,

564
00:27:11,510 --> 00:27:13,610
so this is the data release 3.0,

565
00:27:13,610 --> 00:27:18,090
as well as the COVID-19
supplemental data releases.

566
00:27:18,090 --> 00:27:20,370
So those were made available separately,

567
00:27:20,370 --> 00:27:24,370
through a couple of
separate data releases,

568
00:27:24,370 --> 00:27:27,263
just devoted to COVID-19
supplemental data,

569
00:27:28,730 --> 00:27:32,460
as well as the regular ABCD Data

570
00:27:32,460 --> 00:27:34,670
in the regular curated release,

571
00:27:34,670 --> 00:27:36,870

which includes the one-year followup data,

572
00:27:36,870 --> 00:27:38,950
as well as baseline data,

573
00:27:38,950 --> 00:27:41,980
and a full cohort,
six-month follow-up data,

574
00:27:41,980 --> 00:27:45,763
and then some data on follow-up
time points listed here.

575
00:27:46,800 --> 00:27:49,190
Again, the 4.0 data release
is coming really soon,

576
00:27:49,190 --> 00:27:50,653
which will continue to,

577
00:27:51,810 --> 00:27:54,193
which will include more longitudinal data.

578
00:27:56,620 --> 00:27:58,870
I also wanted to let you know

579
00:27:58,870 --> 00:28:01,420
about some funding
opportunity announcements.

580
00:28:01,420 --> 00:28:03,760
So we have a dedicated
funding opportunities

581
00:28:03,760 --> 00:28:07,130
for examining, for doing
secondary data analyses

582
00:28:07,130 --> 00:28:09,240

on ABCD Data.

583
00:28:09,240 --> 00:28:11,730
And again, this information is available

584
00:28:11,730 --> 00:28:12,860
on the Data Sharing page,

585
00:28:12,860 --> 00:28:16,540
where we will post upcoming data releases,

586
00:28:16,540 --> 00:28:19,240
funding opportunities,
upcoming data-use workshops,

587
00:28:19,240 --> 00:28:21,310
and so on, so all of
that is there for you,

588
00:28:21,310 --> 00:28:23,440
and when it can be placed.

589
00:28:23,440 --> 00:28:24,360
I also wanna point out

590
00:28:24,360 --> 00:28:27,530
that these funding opportunity
announcements listed here

591
00:28:27,530 --> 00:28:29,730
are set to expire soon,

592
00:28:29,730 --> 00:28:34,730
but we will be reissuing
additional funding opportunities

593
00:28:35,530 --> 00:28:38,890
so that you'll be able to
continue to apply for funding

594
00:28:38,890 --> 00:28:40,500
to analyze these data,

595
00:28:40,500 --> 00:28:42,200
and there will be no gap in funding cycle.

596
00:28:42,200 --> 00:28:45,180
So you don't need to be
concerned about trying to make

597
00:28:45,180 --> 00:28:47,443
the last deadline coming up in October.

598
00:28:49,640 --> 00:28:51,180
And that's all I have.

599
00:28:51,180 --> 00:28:53,683
I'm happy to take
questions if we have time.

600
00:28:56,240 --> 00:28:59,140
- There's time for one or two questions.

601
00:28:59,140 --> 00:29:02,320
So there's one in the Q&A,

602
00:29:02,320 --> 00:29:05,560
asking if there are
set research questions,

603
00:29:05,560 --> 00:29:09,960
or can they submit their
own research questions,

604
00:29:09,960 --> 00:29:11,278
and whether there's any data

605

00:29:11,278 --> 00:29:15,513
on autism spectrum disorders,
neurodevelopmental disorder.

606
00:29:16,540 --> 00:29:19,243
- So autism and
neurodevelopmental disorders,

607
00:29:21,060 --> 00:29:23,887
one of the exclusion criteria
for ABCD are very few,

608
00:29:23,887 --> 00:29:28,880
but one was excluding folks
who had, or youth who had

609
00:29:31,087 --> 00:29:32,990
neurodevelopment issues
that would preclude them

610
00:29:32,990 --> 00:29:34,270
from conceding the protocol.

611
00:29:34,270 --> 00:29:36,360
So we don't have an autism image sample,

612
00:29:36,360 --> 00:29:39,160
for example, in ABCD.

613
00:29:39,160 --> 00:29:41,450
The first part of the question was?

614
00:29:41,450 --> 00:29:42,720
Say that again, Gaya.

615
00:29:42,720 --> 00:29:44,670
- Whether there were
set research questions,

616

00:29:44,670 --> 00:29:48,750
or if others could submit
their own research questions.

617
00:29:48,750 --> 00:29:51,810
- To ABCD to inform new data collection?

618
00:29:51,810 --> 00:29:54,690
- No, in terms of analysis, I believe.

619
00:29:54,690 --> 00:29:58,630
- Oh yeah, I mean, I think that
that's actually the benefit

620
00:29:58,630 --> 00:30:01,410
of the data being made available to you.

621
00:30:01,410 --> 00:30:03,230
There's no set research questions

622
00:30:03,230 --> 00:30:06,840
that you would need to
answer or being hard,

623
00:30:06,840 --> 00:30:07,673
even to answer.

624
00:30:07,673 --> 00:30:11,430
It's all up to you and to
form your own questions.

625
00:30:11,430 --> 00:30:14,320
And in fact, we encourage
that because we want people

626
00:30:14,320 --> 00:30:17,370
to put their own spin
and their own expertise

627

00:30:17,370 --> 00:30:20,393
on the data and the questions
that are important to ask.

628
00:30:22,240 --> 00:30:24,740
- Great, and then there
were two related questions,

629
00:30:24,740 --> 00:30:27,649
one about attrition, and one
about completeness of the data.

630
00:30:27,649 --> 00:30:28,770
If you could just give them an update

631
00:30:28,770 --> 00:30:30,510
on where we are with that.

632
00:30:30,510 --> 00:30:33,760
- So we have a very low
attrition at this point.

633
00:30:33,760 --> 00:30:38,760
So we have, I think we're at
like 98% retention in ABCD,

634
00:30:40,030 --> 00:30:42,640
which is really wonderful,
and that's even, you know,

635
00:30:42,640 --> 00:30:44,490
in the face of COVID pandemic.

636
00:30:44,490 --> 00:30:46,910
So that's very encouraging...
(alarm ringing)

637
00:30:46,910 --> 00:30:48,090
My time is up, right.

638
00:30:48,090 --> 00:30:49,167
Let me set it.

639
00:30:50,010 --> 00:30:54,100
And missingness, we have
some missingness of data

640
00:30:54,100 --> 00:30:55,640
as you would expect.

641
00:30:55,640 --> 00:30:58,670
And I probably am not prepared
to get a detailed answer

642
00:30:58,670 --> 00:31:01,840
about the granularity of that,

643
00:31:01,840 --> 00:31:05,570
but not surprisingly
that there are, you know,

644
00:31:05,570 --> 00:31:09,840
we're looking into
participants and families

645
00:31:09,840 --> 00:31:12,100
in this study who are under-resourced,

646
00:31:12,100 --> 00:31:15,990
who are not able to easily
get to their appointments.

647
00:31:15,990 --> 00:31:19,400
And that seems to be a large
proportion of those data

648
00:31:19,400 --> 00:31:23,250
that are missing is people who
are impacted in various ways,

649
00:31:23,250 --> 00:31:24,530
and not able to make their appointments.

650
00:31:24,530 --> 00:31:26,440
So that's something
that's being looked into,

651
00:31:26,440 --> 00:31:30,070
and the individual 21
sites are making efforts

652
00:31:30,070 --> 00:31:33,650
to enhance the retention efforts there.

653
00:31:33,650 --> 00:31:35,620
- I'll just add to
Elizabeth's comment there,

654
00:31:35,620 --> 00:31:39,320
that we do have close to
95% at each of the visits

655
00:31:39,320 --> 00:31:41,230
that have been completed to date

656
00:31:41,230 --> 00:31:42,970
that might change with COVID.

657
00:31:42,970 --> 00:31:46,730
But so far the number of participants

658
00:31:46,730 --> 00:31:50,240
that are completing each
time point is very high.

659
00:31:50,240 --> 00:31:52,990
I think we're out of time
for rest of the questions

660
00:31:52,990 --> 00:31:56,220
that are in here, so we'll
answer them in the Q&A box,

661
00:31:56,220 --> 00:31:59,103
and I'd like to turn it
over to Dr. Carlos Blanco.

662
00:32:01,960 --> 00:32:03,090
- Thank you, Gaya.

663
00:32:03,090 --> 00:32:05,110
And I now want to thank
all the participants

664
00:32:05,110 --> 00:32:07,960
for joining us in this seminar.

665
00:32:07,960 --> 00:32:10,900
My charter is to talk a little
bit about what we expect

666
00:32:10,900 --> 00:32:14,970
from the meeting, and so as
not as already mentioned.

667
00:32:14,970 --> 00:32:18,520
What we really want to do
is increase collaboration

668
00:32:18,520 --> 00:32:20,780
between three fields or three fields

669
00:32:20,780 --> 00:32:24,270
that often don't corroborate
and go separately.

670
00:32:24,270 --> 00:32:27,000

One is epidemiology,
second is neuroscience,

671
00:32:27,000 --> 00:32:28,940
and the third is prevention.

672
00:32:28,940 --> 00:32:31,230
And we want to have these, as Nora said,

673
00:32:31,230 --> 00:32:34,280
as the first meeting of a dialogue

674
00:32:34,280 --> 00:32:36,860
between these three branches,

675
00:32:36,860 --> 00:32:39,640
and to see how we can
integrate them better.

676
00:32:39,640 --> 00:32:42,270
So we are taking ABCB as a model

677
00:32:42,270 --> 00:32:45,210
because it's probably the
best epidemiological study

678
00:32:45,210 --> 00:32:49,237
that has ever been done
for mental disorders

679
00:32:49,237 --> 00:32:52,087
and for substance use
disorders, more specifically.

680
00:32:52,087 --> 00:32:54,987
But we hope that many of the
ideas that will come up today,

681
00:32:54,987 --> 00:32:57,680

and in subsequent meetings,
will be applicable

682
00:32:57,680 --> 00:33:01,100
to other datasets and
other ways of understanding

683
00:33:01,100 --> 00:33:03,780
these three aspects of science.

684
00:33:03,780 --> 00:33:05,810
The second concept I wanted to bring up,

685
00:33:05,810 --> 00:33:09,120
and it's become more and more
important for us at NIDA,

686
00:33:09,120 --> 00:33:11,423
is the concept of user-centered data.

687
00:33:12,989 --> 00:33:16,500
And so we, all of us, as
scientists, as Nora also mentioned,

688
00:33:16,500 --> 00:33:19,010
are very curious and are very interested

689
00:33:19,010 --> 00:33:22,050
in generating data and knowledge per se,

690
00:33:22,050 --> 00:33:24,170
you know, we just want to know things.

691
00:33:24,170 --> 00:33:27,920
But we also have an
obligation to generate data

692
00:33:27,920 --> 00:33:29,950
that are going to advance public health.

693
00:33:29,950 --> 00:33:32,900
And so, as we think
about advancing science

694
00:33:32,900 --> 00:33:34,370
and generating knowledge,

695
00:33:34,370 --> 00:33:35,800
and the ABCD is a fantastic example,

696
00:33:35,800 --> 00:33:39,300
not because ABCD has
50,000 different variables.

697
00:33:39,300 --> 00:33:42,680
So the number of potential
papers that could be written

698
00:33:42,680 --> 00:33:46,120
is essentially, infinite
literate, not technically infinity

699
00:33:46,120 --> 00:33:49,870
in practice infinite, we want
to think, okay, what papers,

700
00:33:49,870 --> 00:33:52,610
what analyses are going
to make a difference

701
00:33:52,610 --> 00:33:55,820
in public health and in
the life of our patients.

702
00:33:55,820 --> 00:33:58,900
And so rather than
think, or do an analysis

703

00:33:58,900 --> 00:34:00,530
and then write the paper,
and say what we hope

704
00:34:00,530 --> 00:34:02,960
this data will be useful for prevention,

705
00:34:02,960 --> 00:34:05,490
which I think many of us have done.

706
00:34:05,490 --> 00:34:08,810
We want to start thinking
before we write the paper,

707
00:34:08,810 --> 00:34:10,590
before you write the paper,

708
00:34:10,590 --> 00:34:13,560
how are these data going to be used?

709
00:34:13,560 --> 00:34:15,790
And one of the ways to encourage that

710
00:34:15,790 --> 00:34:18,580
is to increase collaboration
with prevention.

711
00:34:18,580 --> 00:34:22,680
So we don't expect
people who work with ABCD

712
00:34:22,680 --> 00:34:24,860
they will become professional scientists.

713
00:34:24,860 --> 00:34:26,650
And we don't expect
professional scientists

714
00:34:26,650 --> 00:34:29,390

to become brain imagers
or epidemiologists.

715
00:34:29,390 --> 00:34:33,020
But what we want is for
professional scientists

716
00:34:33,020 --> 00:34:36,847
to start asking epidemiologist
and ABCD investigators,

717
00:34:36,847 --> 00:34:40,487
"Okay, what this data
would be useful for us?

718
00:34:40,487 --> 00:34:42,367
"How can you get at this constructs?

719
00:34:42,367 --> 00:34:43,640
"How can you get..."

720
00:34:43,640 --> 00:34:47,240
And with the expectation
that if the ABCD investigator

721
00:34:47,240 --> 00:34:48,810
or epidemiologists, more broadly,,

722
00:34:48,810 --> 00:34:50,640
are able to generate this data,

723
00:34:50,640 --> 00:34:53,900
then this will translate
into interventions.

724
00:34:53,900 --> 00:34:56,120
So we want to increase this dialogue,

725
00:34:56,120 --> 00:34:58,120

and in a way, I mean, in
a very simplified way,

726
00:34:58,120 --> 00:35:01,760
we want sort of prevention
scientists asking the questions,

727
00:35:01,760 --> 00:35:04,567
and we hope that ABCD
scientists and epidemiologists

728
00:35:04,567 --> 00:35:07,260
will be able to generate
at least some answers,

729
00:35:07,260 --> 00:35:10,180
and of course this will
be an interactive process.

730
00:35:10,180 --> 00:35:11,460
It's not going to be
that the first question

731
00:35:11,460 --> 00:35:13,220
is going to lead to the exact answer,

732
00:35:13,220 --> 00:35:15,093
but that's the kind of battle
that we want to stimulate,

733
00:35:15,093 --> 00:35:19,640
and that's one of the
purposes of the meeting today.

734
00:35:19,640 --> 00:35:22,090
In terms of specific deliverables,

735
00:35:22,090 --> 00:35:24,100
I can think in the short term

736
00:35:24,100 --> 00:35:26,170
are probably the easiest deliverable,

737
00:35:26,170 --> 00:35:27,440
is generating papers.

738
00:35:27,440 --> 00:35:29,710
I mean, again, we hope
that today will stimulate

739
00:35:29,710 --> 00:35:32,400
the development of collaborations

740
00:35:32,400 --> 00:35:35,150
that will include ABCD investigators

741
00:35:35,150 --> 00:35:37,590
and progressive scientists
working together.

742
00:35:37,590 --> 00:35:40,200
So that again, when we read the discussion

743
00:35:40,200 --> 00:35:42,420
is not the way we hope
this will be useful,

744
00:35:42,420 --> 00:35:46,850
but very specific directions
for advancing science

745
00:35:46,850 --> 00:35:48,330
and public health.

746
00:35:48,330 --> 00:35:51,810
Second level, maybe a
little bit more midterm,

747

00:35:51,810 --> 00:35:54,480
would be generating grant applications

748
00:35:54,480 --> 00:35:57,600
that would address these topics.

749
00:35:57,600 --> 00:36:00,580
And then more long-term,
but more importantly,

750
00:36:00,580 --> 00:36:03,240
a better understanding of the etiology

751
00:36:03,240 --> 00:36:04,320
of substance use disorders,

752
00:36:04,320 --> 00:36:08,900
and probably more
broadly mental disorders,

753
00:36:08,900 --> 00:36:11,210
and eventually better intervention.

754
00:36:11,210 --> 00:36:13,010
So we have good interventions,

755
00:36:13,010 --> 00:36:14,740
but our interventions are limited,

756
00:36:14,740 --> 00:36:17,950
both at the level of treatment
and service delivery,

757
00:36:17,950 --> 00:36:20,070
and also the level of prevention.

758
00:36:20,070 --> 00:36:22,610
So the hope is by getting
better understanding

759
00:36:22,610 --> 00:36:26,440
of the etiology both from
the environmental information

760
00:36:26,440 --> 00:36:29,350
that ABCD is getting, but
also from the brain imaging,

761
00:36:29,350 --> 00:36:32,400
we will be able to develop
better interventions.

762
00:36:32,400 --> 00:36:33,780
So it's a complex task.

763
00:36:33,780 --> 00:36:36,180
I completely understand
we're not gonna be able

764
00:36:36,180 --> 00:36:39,760
to solve it today, but we want
to initiate this dialogue.

765
00:36:39,760 --> 00:36:42,720
We realize that not all of
you are going to be able

766
00:36:42,720 --> 00:36:45,900
to ask questions live, but you can do it

767
00:36:45,900 --> 00:36:48,050
through the question and answer feature.

768
00:36:48,050 --> 00:36:50,410
And we hope for a very,
very lively dialogue

769
00:36:50,410 --> 00:36:52,340

during the panels, and beyond that.

770
00:36:52,340 --> 00:36:55,490
So today it's really,
again, sort of the ignition,

771
00:36:55,490 --> 00:36:57,410
the beginning of the conversation,

772
00:36:57,410 --> 00:36:59,830
I do hope that this
conversation will continue

773
00:36:59,830 --> 00:37:00,860
over the coming years.

774
00:37:00,860 --> 00:37:03,130
We hope that this meeting
will be repeated every year,

775
00:37:03,130 --> 00:37:05,300
but we also hope that
between these meetings,

776
00:37:05,300 --> 00:37:07,550
there will be a very,
very intense dialogue

777
00:37:07,550 --> 00:37:10,490
and generation of information.

778
00:37:10,490 --> 00:37:12,150
So I'm going to leave it here,

779
00:37:12,150 --> 00:37:16,060
We have a break until one o'clock,

780
00:37:16,060 --> 00:37:19,570
and I will see all of

you back with the panels.

781
00:37:19,570 --> 00:37:21,573
So thanks very much
again for participating,

782
00:37:21,573 --> 00:37:23,273
and I'll see you in a few minutes.

783
00:37:26,410 --> 00:37:27,873
- Welcome back everyone.

784
00:37:28,760 --> 00:37:30,690
Good afternoon, I'm Bethany Deeds,

785
00:37:30,690 --> 00:37:33,070
and I'm the Deputy Director for DESPR,

786
00:37:33,070 --> 00:37:36,010
which is the Division
of Epidemiology Services

787
00:37:36,010 --> 00:37:38,050
and Prevention Research at NIDA.

788
00:37:38,050 --> 00:37:41,560
And I'm also the ABCD
Study program official.

789
00:37:41,560 --> 00:37:45,870
I'm delighted to introduce our
first panel this afternoon.

790
00:37:45,870 --> 00:37:49,440
This session is going to
focus on exploring the rules

791
00:37:49,440 --> 00:37:52,620
of trauma and substance use initiation.

792
00:37:52,620 --> 00:37:54,880
It's going to explore, what do we know,

793
00:37:54,880 --> 00:37:57,950
what data do we have, or need,

794
00:37:57,950 --> 00:37:59,470
and what can we do?

795
00:37:59,470 --> 00:38:04,470
Our first presenter this
afternoon is Dr. Carla Danielson.

796
00:38:04,900 --> 00:38:06,920
Carla, are you here virtually?

797
00:38:06,920 --> 00:38:08,985
Hi, Carla, (Bethany laughs) and welcome.

798
00:38:08,985 --> 00:38:10,950
- Hey.
- Take it away.

799
00:38:10,950 --> 00:38:12,730
- Okay, great, let's get started.

800
00:38:12,730 --> 00:38:15,230
Thank you so much to NIDA
for hosting this meeting,

801
00:38:15,230 --> 00:38:18,150
and for giving me the opportunity
to talk about this topic,

802
00:38:18,150 --> 00:38:19,840
which is very near and dear to my heart,

803

00:38:19,840 --> 00:38:22,190
this intersection of
trauma and substance use.

804
00:38:22,190 --> 00:38:23,780
10 minutes is going to go very fast,

805
00:38:23,780 --> 00:38:25,560
so I'm going to get started.

806
00:38:25,560 --> 00:38:28,090
So the first question posed
to us, what do we know?

807
00:38:28,090 --> 00:38:31,530
Well, unfortunately, we
know that 70% of youth

808
00:38:31,530 --> 00:38:34,670
will experience some form of
trauma by the time they're 18.

809
00:38:34,670 --> 00:38:37,920
And we know that trauma is
one of the most consistent

810
00:38:37,920 --> 00:38:39,560
and well-established risk factors

811
00:38:39,560 --> 00:38:41,810
forked with substance use initiation

812
00:38:41,810 --> 00:38:44,530
and substance use disorders
across the lifespan,

813
00:38:44,530 --> 00:38:46,610
but it's not a one-to-one
relationship, right?

814
00:38:46,610 --> 00:38:49,160
We know a lot of youth
who experienced trauma

815
00:38:49,160 --> 00:38:51,480
do not go on to develop
substance use problems.

816
00:38:51,480 --> 00:38:53,760
So there's a lot we can
learn from the resilience

817
00:38:53,760 --> 00:38:54,963
within that, as well,

818
00:38:56,240 --> 00:38:59,920
As Dr. Volkow noted earlier,
context is really important.

819
00:38:59,920 --> 00:39:01,970
So we have important risk
and protective factors

820
00:39:01,970 --> 00:39:04,340
at the individual level,
but understanding context,

821
00:39:04,340 --> 00:39:06,660
including at that community
level is critical,

822
00:39:06,660 --> 00:39:07,630
if we're gonna understand

823
00:39:07,630 --> 00:39:11,510
sort of how the trauma and
substance use come together.

824
00:39:11,510 --> 00:39:13,650

Moving into that second
question posed to us,

825
00:39:13,650 --> 00:39:14,840
what data do we have?

826
00:39:14,840 --> 00:39:18,400
What I'm gonna do is share
a few examples of data

827
00:39:18,400 --> 00:39:20,090
that I have for my lab,

828
00:39:20,090 --> 00:39:22,810
in hopes of inspiring some
questions and constructs

829
00:39:22,810 --> 00:39:23,950
that might be able to be answered

830
00:39:23,950 --> 00:39:26,930
from the ABCD Study and data.

831
00:39:26,930 --> 00:39:29,440
So the first study I'm gonna
share is data pointing us

832
00:39:29,440 --> 00:39:31,080
to kind of that, why question.

833
00:39:31,080 --> 00:39:34,040
You know, what mechanism
may underlie the pathway

834
00:39:34,040 --> 00:39:35,410
from the experience of trauma

835
00:39:35,410 --> 00:39:38,480
to substance use initiation and disorders?

836
00:39:38,480 --> 00:39:40,530
So this study is the CHARM Study

837
00:39:40,530 --> 00:39:43,970
funded through an MAMHR01,
in which we're looking

838
00:39:43,970 --> 00:39:46,610
at threat-related negative valence systems

839
00:39:46,610 --> 00:39:49,880
as a possible mechanism that
underlies child maltreatment

840
00:39:49,880 --> 00:39:53,273
on the pathway to anxiety and
other mental health outcomes.

841
00:39:54,570 --> 00:39:57,340
And so there's multiple
ways in which we measure

842
00:39:57,340 --> 00:39:58,630
this ultra threat processing.

843
00:39:58,630 --> 00:40:00,640
So there's some similarities to ABCD.

844
00:40:00,640 --> 00:40:02,100
This is a sample of third, sixth,

845
00:40:02,100 --> 00:40:03,680
and ninth graders at baseline.

846
00:40:03,680 --> 00:40:06,570
We bring them in and do
FMRI, psychophysiology,

847
00:40:06,570 --> 00:40:09,490
cortisol reactivity, clinical
interviewing of course,

848
00:40:09,490 --> 00:40:11,360
around trauma and mental health.

849
00:40:11,360 --> 00:40:13,930
But one way in which we look
at ultra threat processing

850
00:40:13,930 --> 00:40:16,770
is looking at the difference
and their response

851
00:40:16,770 --> 00:40:21,770
to correct trials versus
their response to error trials

852
00:40:22,250 --> 00:40:23,450
during a flanker task.

853
00:40:23,450 --> 00:40:24,730
And this difference is called

854
00:40:24,730 --> 00:40:27,780
Error Related Negativity or ERN.

855
00:40:27,780 --> 00:40:30,760
And so ERN is an early neural response

856
00:40:30,760 --> 00:40:33,750
to error or threat detection.

857
00:40:33,750 --> 00:40:35,420
And as it relates to ABCD,

858
00:40:35,420 --> 00:40:39,430

I'll note that the
anterior cingulate cortex

859
00:40:39,430 --> 00:40:44,400
is thought to be the neural
area that drives ERN.

860
00:40:44,400 --> 00:40:47,120
So looking at ERN within CHARM,

861
00:40:47,120 --> 00:40:50,410
what you wanna pay attention
to here are these black bars,

862
00:40:50,410 --> 00:40:51,930
down below here.

863
00:40:51,930 --> 00:40:54,820
And what we see, this is a subgroup

864
00:40:54,820 --> 00:40:58,360
that have experienced IPV,
interpersonal violence,

865
00:40:58,360 --> 00:41:01,090
looking at that air
related negativity response

866
00:41:01,090 --> 00:41:03,070
in comparison to youth,

867
00:41:03,070 --> 00:41:06,060
who've experienced other
forms of non-IPV trauma,

868
00:41:06,060 --> 00:41:08,700
as well as youth who've
endorsed no trauma,

869

00:41:08,700 --> 00:41:12,840
and what we see is a blunted ERN.

870
00:41:12,840 --> 00:41:17,040
And you might say, "Well,
okay, so what does that mean?"

871
00:41:17,040 --> 00:41:18,590
Well, blunted ERN...

872
00:41:18,590 --> 00:41:20,510
So adult research has shown

873
00:41:20,510 --> 00:41:22,880
that adults with substance use disorders

874
00:41:22,880 --> 00:41:24,480
have a blunted ERN.

875
00:41:24,480 --> 00:41:28,040
And talking with my colleague,
Lisa Maytag about this.

876
00:41:28,040 --> 00:41:30,940
She was sharing that
this has been interpreted

877
00:41:30,940 --> 00:41:33,380
outside of the trauma realm

878
00:41:33,380 --> 00:41:35,410
as poor accommodation to punishment,

879
00:41:35,410 --> 00:41:39,240
which is then likened to poor response,

880
00:41:39,240 --> 00:41:42,610
or maybe not so much response
to the adverse consequences

881
00:41:42,610 --> 00:41:43,740
of substance use disorder.

882
00:41:43,740 --> 00:41:45,970
But again, thinking about
this from a trauma lens,

883
00:41:45,970 --> 00:41:48,740
threat processing maybe
are relevant components

884
00:41:48,740 --> 00:41:50,040
to further consider.

885
00:41:50,040 --> 00:41:53,170
I also wanna give a huge
shout out to Chris Saggy

886
00:41:53,170 --> 00:41:56,100
who's a brilliant
psychophysiology researcher

887
00:41:56,100 --> 00:41:59,320
who helped me with these ERN
analyses and slides for this.

888
00:41:59,320 --> 00:42:02,870
And within the CHARM sample
where you are still very much

889
00:42:02,870 --> 00:42:04,380
in data collection and data cleaning.

890
00:42:04,380 --> 00:42:07,540
So we don't have the numbers yet

891
00:42:10,300 --> 00:42:12,910
in terms of youth endorsing substance use,

892
00:42:12,910 --> 00:42:14,010
to be able to speak to ERN.

893
00:42:14,010 --> 00:42:16,390
But I can tell you that
a 100% of the youth

894
00:42:16,390 --> 00:42:18,210
who have endorsed substance use

895
00:42:18,210 --> 00:42:20,210
at this point also have endorsed trauma.

896
00:42:21,130 --> 00:42:24,220
So what data do we have
moving into the next round,

897
00:42:24,220 --> 00:42:25,150
beyond the why,

898
00:42:25,150 --> 00:42:27,330
we can also look at the how and the when,

899
00:42:27,330 --> 00:42:30,090
and this is making a pitch
for secondary prevention.

900
00:42:30,090 --> 00:42:33,190
So targeting trauma symptoms as a way

901
00:42:33,190 --> 00:42:37,000
of potentially curtailing
substance use problems.

902
00:42:37,000 --> 00:42:41,377
So this is a study funded
through an NIDA R01,

903
00:42:42,470 --> 00:42:44,180
clinical randomized clinical trial,

904
00:42:44,180 --> 00:42:46,280
evaluating the efficacy of risk reduction

905
00:42:46,280 --> 00:42:48,330
through family therapy, or RRFT,

906
00:42:48,330 --> 00:42:50,980
which is an integrated
approach to treating

907
00:42:50,980 --> 00:42:55,340
substance use problems and
PTSD symptoms in adolescents.

908
00:42:55,340 --> 00:42:58,050
And you can see we compared
it to treatment as usual,

909
00:42:58,050 --> 00:42:58,980
which was largely

910
00:42:58,980 --> 00:43:01,270
trauma-focused cognitive
behavioral therapy,

911
00:43:01,270 --> 00:43:03,500
which is an evidence-based
treatment for PTSD,

912
00:43:03,500 --> 00:43:06,380
but importantly, it does
not address substance use.

913
00:43:06,380 --> 00:43:08,720
So what you're looking at
here is a graph published

914
00:43:08,720 --> 00:43:11,160
last year in JAMA
Psychiatry, and what you see,

915
00:43:11,160 --> 00:43:13,440
what I want you to pay
attention to is really

916
00:43:13,440 --> 00:43:16,940
sort of during the time that
the kids were in treatment.

917
00:43:16,940 --> 00:43:19,580
We see within group significant reduction,

918
00:43:19,580 --> 00:43:21,750
even in the treatment as usual group.

919
00:43:21,750 --> 00:43:24,010
So even without addressing
the substance use

920
00:43:24,010 --> 00:43:25,210
by treating the PTSD,

921
00:43:25,210 --> 00:43:27,610
we're seeing a reduction
in substance using days.

922
00:43:27,610 --> 00:43:29,920
Now where the rubber
hits through with RFT,

923
00:43:29,920 --> 00:43:32,470
and we're really focused
on that relapse prevention,

924
00:43:32,470 --> 00:43:34,440

and that maintenance, we
do see those outcomes here,

925
00:43:34,440 --> 00:43:35,283
which is good.

926
00:43:36,310 --> 00:43:38,540
But this, I think really can help us ask

927
00:43:38,540 --> 00:43:40,500
some interesting questions about our kids

928
00:43:40,500 --> 00:43:42,150
accessing treatment for their trauma,

929
00:43:42,150 --> 00:43:46,620
and how in fact is that impacting
potentially reducing risks

930
00:43:46,620 --> 00:43:50,390
for later substance use problems.

931
00:43:50,390 --> 00:43:52,853
Okay, so moving more into
the prevention space.

932
00:43:54,160 --> 00:43:56,640
This is while we were doing the RFT trial,

933
00:43:56,640 --> 00:43:57,660
one of the issues that came up

934
00:43:57,660 --> 00:43:59,130
a lot from referring sources is,

935
00:43:59,130 --> 00:44:01,810
oh, this youth is not yet
engaging in substance use,

936
00:44:01,810 --> 00:44:02,983
but I promise they're really at risk,

937
00:44:02,983 --> 00:44:05,890
they're on the brink of engaging
in these risk behaviors.

938
00:44:05,890 --> 00:44:07,030
Is there anything we can do?

939
00:44:07,030 --> 00:44:08,860
And so that was a really
important question.

940
00:44:08,860 --> 00:44:12,270
Do we need to wait until we
know these youth are at risk

941
00:44:12,270 --> 00:44:13,520
because by the nature of the fact

942
00:44:13,520 --> 00:44:17,160
that they've experienced trauma,
they have these symptoms.

943
00:44:17,160 --> 00:44:19,270
Is there something we can
do to bend trajectories

944
00:44:19,270 --> 00:44:23,830
away from possibly having
onset substance use problems?

945
00:44:23,830 --> 00:44:27,052
So this is where this tips came in.

946
00:44:27,052 --> 00:44:32,052
So this is a app developed
for clinicians to deliver

947
00:44:32,490 --> 00:44:34,750
during trauma-focused treatment.

948
00:44:34,750 --> 00:44:36,970
So we know, unfortunately
kids do not line up

949
00:44:36,970 --> 00:44:38,950
for prevention services, right?

950
00:44:38,950 --> 00:44:42,200
We have to capture through
the windows of where they are.

951
00:44:42,200 --> 00:44:43,940
So when they're coming
in during that window,

952
00:44:43,940 --> 00:44:46,150
when they're coming in for
treatment incorporating

953
00:44:46,150 --> 00:44:49,040
evidence-based substance
use prevention curriculum,

954
00:44:49,040 --> 00:44:51,320
and HIV prevention curriculum

955
00:44:51,320 --> 00:44:53,793
into that trauma-focused treatment.

956
00:44:54,920 --> 00:44:57,910
And our qualitative data
had very positive responses

957
00:44:57,910 --> 00:44:58,890
from their end users.

958
00:44:58,890 --> 00:45:01,770
Dr. Austin Han helped
me with these analysis.

959
00:45:01,770 --> 00:45:03,390
So a huge shout-out to him as well,

960
00:45:03,390 --> 00:45:04,530
and our quantitative data,

961
00:45:04,530 --> 00:45:06,140
while this is way too small of a sample

962
00:45:06,140 --> 00:45:08,790
to be an efficacy trial are
trending in the right direction.

963
00:45:08,790 --> 00:45:10,720
So more to come on that.

964
00:45:10,720 --> 00:45:12,520
So what can we do to leverage the data,

965
00:45:12,520 --> 00:45:14,040
to build the most effective prevention,

966
00:45:14,040 --> 00:45:15,210
interventions, and approaches?

967
00:45:15,210 --> 00:45:17,860
So within our ABCD data set and beyond

968
00:45:17,860 --> 00:45:19,440
looking for proxies for and correlates,

969
00:45:19,440 --> 00:45:20,837
I would say of threat processing

970
00:45:20,837 --> 00:45:22,430
and other potential mechanisms.

971
00:45:22,430 --> 00:45:24,410
I've talked about that
ACC activation, earlier,

972
00:45:24,410 --> 00:45:26,830
cognitive control, the reward processing.

973
00:45:26,830 --> 00:45:29,440
I know Chris Hedgie is
looking at that as well.

974
00:45:29,440 --> 00:45:32,350
Patterns of trauma exposure
and other forms of adversity.

975
00:45:32,350 --> 00:45:33,970
Very happy to hear Dr. Volkow

976
00:45:33,970 --> 00:45:35,080
talking about that role

977
00:45:35,080 --> 00:45:37,730
of racism-related trauma,
discrimination stress.

978
00:45:37,730 --> 00:45:40,530
Dante Bernard is looking at
this within Black populations,

979
00:45:40,530 --> 00:45:42,730
Tanya Galvin within Latinx populations,

980
00:45:42,730 --> 00:45:44,790
and something we just need
to understand a lot more.

981
00:45:44,790 --> 00:45:48,790
As well as this rich COVID
exposure and experience data

982
00:45:48,790 --> 00:45:50,290
that ABCD offers.

983
00:45:50,290 --> 00:45:52,210
I think we'll have a
lot to learn from there.

984
00:45:52,210 --> 00:45:54,750
Service utilization
patterns around both trauma

985
00:45:54,750 --> 00:45:56,423
and the substance use piece.

986
00:45:57,370 --> 00:45:59,870
The social media usage,
as I'm just talked about,

987
00:45:59,870 --> 00:46:02,190
our youth are not gonna
line up for prevention,

988
00:46:02,190 --> 00:46:04,654
so we have to go to where they're at.

989
00:46:04,654 --> 00:46:06,360
So that might be things like TikTok,

990
00:46:06,360 --> 00:46:10,423
and Instagram influencers, and so on.

991
00:46:11,410 --> 00:46:13,510
We have to be paying
attention to those ecologies.

992
00:46:13,510 --> 00:46:15,570
Again, ABCD has such great rich data

993
00:46:15,570 --> 00:46:17,720
when we're thinking about caregiver level

994
00:46:17,720 --> 00:46:18,723
and peer-level data.

995
00:46:19,950 --> 00:46:22,640
Trauma and substance use
have a lot of parallels,

996
00:46:22,640 --> 00:46:24,740
intergenerational
transmission is one of them.

997
00:46:24,740 --> 00:46:26,040
So a lot of our caregivers

998
00:46:26,040 --> 00:46:28,580
have their own trauma
history and struggles,

999
00:46:28,580 --> 00:46:30,590
so things that we can
understand about that,

1000
00:46:30,590 --> 00:46:32,700
I think also would help be informative

1001
00:46:32,700 --> 00:46:35,020
in terms of prevention,
intervention approaches.

1002
00:46:35,020 --> 00:46:38,440
As a adolescent risk behavior researcher,

1003
00:46:38,440 --> 00:46:41,080
and as a parent of a 14-year-old daughter,

1004
00:46:41,080 --> 00:46:43,290
it has been truthfully very surprising,

1005
00:46:43,290 --> 00:46:46,730
the lack of concern that I
have observed among caregivers

1006
00:46:46,730 --> 00:46:48,460
regarding adolescent substance use.

1007
00:46:48,460 --> 00:46:50,240
So I think we have a
tremendous amount of work

1008
00:46:50,240 --> 00:46:52,223
in this country to shift that.

1009
00:46:53,610 --> 00:46:56,090
Understanding resiliency is so critical

1010
00:46:56,090 --> 00:46:57,820
and understanding risks, and making sure

1011
00:46:57,820 --> 00:46:59,740
that we're really
attending to and studying

1012
00:46:59,740 --> 00:47:02,240
the resilient youth in the
sample and ABCD sample,

1013
00:47:02,240 --> 00:47:03,680
as well as those who are going on

1014
00:47:03,680 --> 00:47:06,970

to develop substance use and
other mental health problems.

1015
00:47:06,970 --> 00:47:08,980
Prioritizing inclusion of representation

1016
00:47:08,980 --> 00:47:11,940
of marginalized populations
is so, so, so critical.

1017
00:47:11,940 --> 00:47:14,800
So pay attention to that missingness,

1018
00:47:14,800 --> 00:47:17,690
and make sure that you have
that in your studies as well.

1019
00:47:17,690 --> 00:47:20,320
And continuing this
movement toward integration

1020
00:47:20,320 --> 00:47:22,420
of the substance use and
mental health fields,

1021
00:47:22,420 --> 00:47:23,840
and away from the siloed approach

1022
00:47:23,840 --> 00:47:25,160
that has been around for so long.

1023
00:47:25,160 --> 00:47:28,740
And I'm so grateful to NIDA
for funding integrated work.

1024
00:47:28,740 --> 00:47:30,070
And this is my final slide.

1025
00:47:30,070 --> 00:47:33,660

It's not an empirical slide
by any stretch, but it's just,

1026
00:47:33,660 --> 00:47:37,950
I had a colleague recently
post this to her Facebook page,

1027
00:47:37,950 --> 00:47:41,520
and it's basically a nod to the fact

1028
00:47:41,520 --> 00:47:44,540
that trauma is such a critical component,

1029
00:47:44,540 --> 00:47:46,780
or can be such a critical
component in shaping

1030
00:47:46,780 --> 00:47:50,890
whether or not somebody forms
healthy coping strategies,

1031
00:47:50,890 --> 00:47:51,910
and so on.

1032
00:47:51,910 --> 00:47:53,640
And so if you look at the number of shares

1033
00:47:53,640 --> 00:47:55,240
and number of responses to this,

1034
00:47:55,240 --> 00:47:58,250
we don't need to wait until folks go on

1035
00:47:58,250 --> 00:47:59,960
to develop substance use problems.

1036
00:47:59,960 --> 00:48:01,280
We don't need to wait to
see if they're gonna be

1037
00:48:01,280 --> 00:48:04,930
that person who falls in the
category of opiod overdose.

1038
00:48:04,930 --> 00:48:06,300
There are things we can do now,

1039
00:48:06,300 --> 00:48:08,350
once we identify them as somebody at risk

1040
00:48:08,350 --> 00:48:09,740
because of that trauma exposure.

1041
00:48:09,740 --> 00:48:11,380
So I'm so thrilled, we get
to have the opportunity

1042
00:48:11,380 --> 00:48:12,620
to have this discussion today,

1043
00:48:12,620 --> 00:48:14,790
to learn more how we can do that best.

1044
00:48:14,790 --> 00:48:17,450
- Thanks so much Dr. Danielson.

1045
00:48:17,450 --> 00:48:20,883
Our next presenter is Dr.
Amanda Morris, Amanda?

1046
00:48:22,010 --> 00:48:24,700
- Hey everyone. Thanks
for having me today.

1047
00:48:24,700 --> 00:48:26,420
I am a developmental psychologist,

1048

00:48:26,420 --> 00:48:29,950
so I'm really excited to talk to you about

1049
00:48:31,370 --> 00:48:33,810
really the way the ABCD Data can be used

1050
00:48:33,810 --> 00:48:34,770
and to look over time.

1051
00:48:34,770 --> 00:48:36,890
So I can't see my slides,

1052
00:48:36,890 --> 00:48:39,490
but I think they're supposedly coming.

1053
00:48:39,490 --> 00:48:42,123
If not, I can share my own.

1054
00:48:44,290 --> 00:48:47,210
Susan?
- They should be up there now.

1055
00:48:47,210 --> 00:48:48,313
- I don't see them.

1056
00:48:49,860 --> 00:48:50,693
- [Susan] Mm.

1057
00:48:53,620 --> 00:48:54,790
How about now?
- Oh.

1058
00:48:54,790 --> 00:48:56,310
They're there. Okay, great.

1059
00:48:56,310 --> 00:48:58,240
So next slide.

1060

00:48:58,240 --> 00:49:00,660
So the bulk of my talk is
going to be talking about

1061
00:49:00,660 --> 00:49:03,700
the ABCD Data and the
variables that we have,

1062
00:49:03,700 --> 00:49:05,960
but I wanna talk a little
bit first about trauma,

1063
00:49:05,960 --> 00:49:08,940
adversity, and resilience, and
why all three are important.

1064
00:49:08,940 --> 00:49:10,560
And I think that sets up well

1065
00:49:10,560 --> 00:49:12,270
for the purpose of the talk today

1066
00:49:12,270 --> 00:49:14,511
and purpose of this conference.

1067
00:49:14,511 --> 00:49:18,600
So I think when we're
talking about resilience,

1068
00:49:18,600 --> 00:49:19,830
and trauma, and adversity,

1069
00:49:19,830 --> 00:49:22,410
you have to really think
about both sides of the story.

1070
00:49:22,410 --> 00:49:24,240
So it's important to think about

1071

00:49:24,240 --> 00:49:26,630
those strengths-based assessments.

1072
00:49:26,630 --> 00:49:28,220
And when we're talking about trauma,

1073
00:49:28,220 --> 00:49:30,590
we can think about our traumatic events

1074
00:49:30,590 --> 00:49:32,180
that youth are experiencing,

1075
00:49:32,180 --> 00:49:34,890
but also from a broader lens of adversity.

1076
00:49:34,890 --> 00:49:37,450
And so I'll talk a little
bit about the ACEs Study

1077
00:49:37,450 --> 00:49:39,290
and how adversity,

1078
00:49:39,290 --> 00:49:42,320
many of the things that
we see in the ACEs Study

1079
00:49:42,320 --> 00:49:43,420
can be traumatic.

1080
00:49:43,420 --> 00:49:46,330
And so we're really talking
here about understanding

1081
00:49:46,330 --> 00:49:47,660
the brain within context.

1082
00:49:47,660 --> 00:49:50,130
And what do we have in the ABCD data set

1083
00:49:50,130 --> 00:49:52,700
that will allow us to have
a better understanding

1084
00:49:52,700 --> 00:49:55,510
of the context that our
youth are developing?

1085
00:49:55,510 --> 00:49:57,033
So next slide, please.

1086
00:50:02,170 --> 00:50:04,290
All right, so hopefully everyone here

1087
00:50:04,290 --> 00:50:06,640
we're a prevention scientist's group

1088
00:50:06,640 --> 00:50:08,510
is really familiar with the ACEs Study,

1089
00:50:08,510 --> 00:50:12,020
but if you are not do a Google Scholar.

1090
00:50:12,020 --> 00:50:13,560
The importance of ACEs,

1091
00:50:13,560 --> 00:50:14,980
and the reason that I bring it up,

1092
00:50:14,980 --> 00:50:17,010
and why I wanna talk about it today

1093
00:50:17,010 --> 00:50:20,000
is that it's one of the
most widely measures

1094
00:50:20,000 --> 00:50:23,830
that's used worldwide to

look at adversity and trauma,

1095
00:50:23,830 --> 00:50:27,150
and ACEs co-occur.

1096
00:50:27,150 --> 00:50:29,017
And so we know that if you have one ACE

1097
00:50:29,017 --> 00:50:31,330
you are more likely to have two.

1098
00:50:31,330 --> 00:50:32,960
And we know that ACEs are common.

1099
00:50:32,960 --> 00:50:35,860
50% or more people have at least one ACE,

1100
00:50:35,860 --> 00:50:40,127
and that changes, that
statistic is higher worldwide.

1101
00:50:41,510 --> 00:50:44,340
And also that the effects
of ACEs are cumulative.

1102
00:50:44,340 --> 00:50:48,240
So I wanna also mention here
that this is not just trauma.

1103
00:50:48,240 --> 00:50:50,300
When we look broader at adversity,

1104
00:50:50,300 --> 00:50:52,740
we include the family dysfunction piece.

1105
00:50:52,740 --> 00:50:54,860
And so it's really important to think

1106

00:50:54,860 --> 00:50:58,030
about many of these adverse experiences

1107
00:50:58,030 --> 00:50:59,510
that happened within the family

1108
00:50:59,510 --> 00:51:01,720
are also traumatic for youth.

1109
00:51:01,720 --> 00:51:02,833
Next slide, please.

1110
00:51:04,330 --> 00:51:07,520
So I think it's important to understand

1111
00:51:07,520 --> 00:51:09,560
how ACEs impair normal development.

1112
00:51:09,560 --> 00:51:12,840
And so here, we're talking
about looking again

1113
00:51:12,840 --> 00:51:15,300
at the brain, and at
development within context.

1114
00:51:15,300 --> 00:51:17,920
And so when you have these
early life experiences,

1115
00:51:17,920 --> 00:51:20,520
these early traumas, this adversity,

1116
00:51:20,520 --> 00:51:23,050
you see physical
adaptations to that stress.

1117
00:51:23,050 --> 00:51:25,010
And this I'm sure will come up later,

1118
00:51:25,010 --> 00:51:25,843
in the talks today.

1119
00:51:25,843 --> 00:51:27,610
But this adaptation,

1120
00:51:27,610 --> 00:51:30,840
these changes in the endocrine
immune, brain systems,

1121
00:51:30,840 --> 00:51:34,780
epigenetic changes all lead
to developmental impairments.

1122
00:51:34,780 --> 00:51:36,520
Next slide, please.

1123
00:51:36,520 --> 00:51:39,070
Some of those developmental impairments

1124
00:51:39,070 --> 00:51:41,970
like executive function
and delay of gratification,

1125
00:51:41,970 --> 00:51:45,140
emotion regulation difficulties
are really important

1126
00:51:45,140 --> 00:51:49,300
to think about when we're
talking about substance abuse.

1127
00:51:49,300 --> 00:51:51,190
But this slide really is getting more

1128
00:51:51,190 --> 00:51:53,500
at this intergenerational
transmission of diversity,

1129
00:51:53,500 --> 00:51:55,500
which is really important to think about,

1130
00:51:55,500 --> 00:51:58,340
so that when you're in
these family systems

1131
00:51:58,340 --> 00:52:03,010
where you see parents who
can't control their emotions,

1132
00:52:03,010 --> 00:52:04,690
you see a maltreatment,

1133
00:52:04,690 --> 00:52:07,070
you start to see this adaptation,

1134
00:52:07,070 --> 00:52:09,840
and these changes within
the biological systems

1135
00:52:09,840 --> 00:52:13,070
at different levels that are passed down

1136
00:52:13,070 --> 00:52:15,973
from generation to generation, next slide.

1137
00:52:18,130 --> 00:52:19,600
So this is a busy model here.

1138
00:52:19,600 --> 00:52:22,270
It was created by me and my
colleague, Jennifer Hays-Grudo,

1139
00:52:22,270 --> 00:52:23,990
at Oklahoma State University.

1140

00:52:23,990 --> 00:52:25,430
And what we were trying to do here

1141
00:52:25,430 --> 00:52:29,170
is to really bring together
about a half dozen models

1142
00:52:29,170 --> 00:52:30,010
that were really getting

1143
00:52:30,010 --> 00:52:33,090
at biobehavioral environmental effects

1144
00:52:33,090 --> 00:52:35,220
of adversity on development.

1145
00:52:35,220 --> 00:52:38,190
So you can see here on
the left that we have

1146
00:52:38,190 --> 00:52:42,450
not only the ACEs, but also we
have protective experiences.

1147
00:52:42,450 --> 00:52:44,450
You can see this physiological systems,

1148
00:52:44,450 --> 00:52:46,100
the developmental systems.

1149
00:52:46,100 --> 00:52:49,840
And then how this cascades
over time to affect health

1150
00:52:49,840 --> 00:52:52,030
and developmental outcomes.

1151
00:52:52,030 --> 00:52:53,280
And again, that's passed

1152
00:52:53,280 --> 00:52:55,693
from generation to generation, next slide.

1153
00:52:57,100 --> 00:52:58,740
So now the important part.

1154
00:52:58,740 --> 00:53:00,760
I wanna talk about what ACE-related,

1155
00:53:00,760 --> 00:53:04,800
and trauma-related variables
we have in the ABCD data set.

1156
00:53:04,800 --> 00:53:07,440
And I'm part of the culture
and environment group,

1157
00:53:07,440 --> 00:53:09,840
and I'm going to hit some
of the high points here.

1158
00:53:09,840 --> 00:53:12,940
Maribel will also talk
about these later on.

1159
00:53:12,940 --> 00:53:17,130
But the ACE questions
that have been asked.

1160
00:53:17,130 --> 00:53:18,430
And again, this is where

1161
00:53:18,430 --> 00:53:20,070
if you look in these larger datasets,

1162
00:53:20,070 --> 00:53:21,970
sometimes it's not just one survey,

1163
00:53:21,970 --> 00:53:24,230
you have to sort of
look within the data set

1164
00:53:24,230 --> 00:53:25,063
to see where these.

1165
00:53:25,063 --> 00:53:29,550
And so the life event
scale has been asked,

1166
00:53:29,550 --> 00:53:32,750
and it's at every time except baseline,

1167
00:53:32,750 --> 00:53:35,910
and we ask that of the
youth and of the parent.

1168
00:53:35,910 --> 00:53:39,220
And it, I have here, you can
see the items, homelessness,

1169
00:53:39,220 --> 00:53:41,170
parents separated or divorced,

1170
00:53:41,170 --> 00:53:43,563
drug or alcohol problem
of a family member,

1171
00:53:43,563 --> 00:53:48,350
a family member within emotional
or mental health problem.

1172
00:53:48,350 --> 00:53:51,490
One of the parents went to
jail, a child in foster care.

1173
00:53:51,490 --> 00:53:54,050
And we asked if this happened to you,

1174
00:53:54,050 --> 00:53:56,340
or to the youth in the past year,

1175
00:53:56,340 --> 00:53:59,370
over the lifetime and how
much it affected the youth.

1176
00:53:59,370 --> 00:54:01,070
And I think what's really exciting here

1177
00:54:01,070 --> 00:54:04,090
is that actually Dr. Volkow talked about,

1178
00:54:04,090 --> 00:54:06,297
well, we have to look before age 10

1179
00:54:06,297 --> 00:54:08,940
and the study started age nine and 10.

1180
00:54:08,940 --> 00:54:12,210
So for the next assessment,
the five-year followup,

1181
00:54:12,210 --> 00:54:13,830
which is the youth are 14 and 15,

1182
00:54:13,830 --> 00:54:17,360
we're actually asking these
questions retrospectively

1183
00:54:17,360 --> 00:54:18,370
of the parent.

1184
00:54:18,370 --> 00:54:20,910
So when the child was five or younger,

1185
00:54:20,910 --> 00:54:22,170

did these things occur?

1186
00:54:22,170 --> 00:54:25,073
Yes, no, or refuse, next slide.

1187
00:54:26,760 --> 00:54:28,180
We also, when we're talking about trauma,

1188
00:54:28,180 --> 00:54:32,000
we do have the case ads,
parent report on the youth,

1189
00:54:32,000 --> 00:54:34,100
specifically about physical abuse.

1190
00:54:34,100 --> 00:54:36,820
You can see the item there, sexual abuse.

1191
00:54:36,820 --> 00:54:39,930
This is within the home,
violence in the home.

1192
00:54:39,930 --> 00:54:41,440
These are actual ACE items.

1193
00:54:41,440 --> 00:54:44,240
Again, I'm tying these ACEs items to items

1194
00:54:44,240 --> 00:54:47,387
that are in the data set of ABCD.

1195
00:54:47,387 --> 00:54:51,200
And we also have the case
adds and traumatic events part

1196
00:54:51,200 --> 00:54:53,130
of the PTSD diagnostic interview.

1197

00:54:53,130 --> 00:54:55,840
These are, yes/no questions.

1198
00:54:55,840 --> 00:55:00,410
And so you can see here,
abuse by a non family member,

1199
00:55:00,410 --> 00:55:03,940
sexual abuse by a peer, a car accident,

1200
00:55:03,940 --> 00:55:06,640
needing treatment from a serious accident,

1201
00:55:06,640 --> 00:55:11,530
national disaster, fire,
witness, terrorism,

1202
00:55:11,530 --> 00:55:15,430
or a war zone, a shooting, stabbing,

1203
00:55:15,430 --> 00:55:16,630
child threatened to be killed.

1204
00:55:16,630 --> 00:55:20,600
So those items are all available
within the ACEs data set,

1205
00:55:20,600 --> 00:55:21,980
sorry, the ABCD data set.

1206
00:55:21,980 --> 00:55:23,523
Next slide, please.

1207
00:55:24,440 --> 00:55:27,220
We also do ask youth about neglect.

1208
00:55:27,220 --> 00:55:31,350
This was asked in the
year three follow-up,

1209
00:55:31,350 --> 00:55:33,880
and the questions here, you can see them

1210
00:55:33,880 --> 00:55:36,440
really getting at more broader neglect,

1211
00:55:36,440 --> 00:55:39,470
and again, neglect can be
very traumatic for you.

1212
00:55:39,470 --> 00:55:41,380
We're talking about
development in context here.

1213
00:55:41,380 --> 00:55:44,050
So did the parents care about you?

1214
00:55:44,050 --> 00:55:48,240
Was there a time that
they took interest in you?

1215
00:55:48,240 --> 00:55:50,300
Did things happen like you shoplifted,

1216
00:55:50,300 --> 00:55:52,293
and did they care or not care?

1217
00:55:53,260 --> 00:55:56,810
What about being in a place
that's safe and a place

1218
00:55:56,810 --> 00:55:58,440
where you can hang out safely?

1219
00:55:58,440 --> 00:56:00,990
Do your parents help
you with your homework?

1220
00:56:00,990 --> 00:56:02,610
Do they make sure that you go to school?

1221
00:56:02,610 --> 00:56:03,610
So again, this is getting

1222
00:56:03,610 --> 00:56:06,863
at the broader idea of
neglect, next slide.

1223
00:56:08,260 --> 00:56:11,220
So I wanna talk just briefly,
I don't have much time left,

1224
00:56:11,220 --> 00:56:13,900
but about resilience
because I do think we have

1225
00:56:13,900 --> 00:56:16,090
some assessments and some measures

1226
00:56:16,090 --> 00:56:18,050
in the ABCD data set.

1227
00:56:18,050 --> 00:56:22,020
And here resilience, really
this capacity to adapt

1228
00:56:22,950 --> 00:56:25,760
in these difficult contexts of adversity.

1229
00:56:25,760 --> 00:56:28,050
And so here are just
several different cities

1230
00:56:28,050 --> 00:56:29,400
that have looked at the ACEs

1231

00:56:29,400 --> 00:56:31,773
and protective experiences together,

1232
00:56:32,986 --> 00:56:35,786
and they'll be available, and
this is all being recorded

1233
00:56:36,670 --> 00:56:39,763
if you wanna look back at
those, but next slide please.

1234
00:56:41,440 --> 00:56:42,780
So we came up with the PACEs,

1235
00:56:42,780 --> 00:56:44,910
the Protective and
Compensatory Experiences

1236
00:56:44,910 --> 00:56:47,120
here at OSU with my colleague,
Jennifer Hays-Grudo,

1237
00:56:47,120 --> 00:56:48,460
and we talk about,

1238
00:56:48,460 --> 00:56:51,030
these are really to mirror the ACEs items.

1239
00:56:51,030 --> 00:56:52,810
And so we have five questions

1240
00:56:52,810 --> 00:56:54,810
that get at nurturing relationships,

1241
00:56:54,810 --> 00:56:57,980
and five questions that get
at enriched environments.

1242
00:56:57,980 --> 00:56:59,390

And so you can see there,

1243
00:56:59,390 --> 00:57:01,630
so things like unconditional
love for my caregiver,

1244
00:57:01,630 --> 00:57:05,810
having best friends, social
groups, volunteering,

1245
00:57:05,810 --> 00:57:07,570
having resources and routines,

1246
00:57:07,570 --> 00:57:10,773
like developing your physical
skills, talents, hobbies,

1247
00:57:11,970 --> 00:57:16,140
good learning school opportunities,
basic needs being met.

1248
00:57:16,140 --> 00:57:17,780
Next slide, please.

1249
00:57:17,780 --> 00:57:20,010
So within the ABCD Study,

1250
00:57:20,010 --> 00:57:22,740
we do have some pace-related variables.

1251
00:57:22,740 --> 00:57:24,260
These are asked at various assessments.

1252
00:57:24,260 --> 00:57:25,093
Maribel will talk

1253
00:57:25,093 --> 00:57:28,090
about the parenting and family variables,

1254
00:57:28,090 --> 00:57:29,300
but we have the CRPBI,

1255
00:57:29,300 --> 00:57:31,910
but we also ask about
these enriching activities.

1256
00:57:31,910 --> 00:57:35,773
We ask about arts and
activities like dance, reading,

1257
00:57:36,660 --> 00:57:39,660
we ask about drama, and
we ask specifically,

1258
00:57:39,660 --> 00:57:41,630
if these were on your own or organized.

1259
00:57:41,630 --> 00:57:45,070
We also ask about sports,
baseball, football,

1260
00:57:45,070 --> 00:57:46,280
all different kinds of sports.

1261
00:57:46,280 --> 00:57:48,670
And again, if this was
organized or on your own

1262
00:57:48,670 --> 00:57:50,470
getting at these enriching experiences,

1263
00:57:50,470 --> 00:57:52,070
these things that over,

1264
00:57:52,070 --> 00:57:55,580
we know over decades of
developmental research,

1265
00:57:55,580 --> 00:57:57,230
what is really promoting resilience.

1266
00:57:57,230 --> 00:57:58,770
It's these nurturing relationships

1267
00:57:58,770 --> 00:58:01,050
on these enriching activities.

1268
00:58:01,050 --> 00:58:03,460
We also ask about, and
this is really exciting

1269
00:58:03,460 --> 00:58:04,790
because this is coming up

1270
00:58:04,790 --> 00:58:08,550
in the next data data collection phase

1271
00:58:08,550 --> 00:58:10,750
in year five, starting soon.

1272
00:58:10,750 --> 00:58:12,367
And again, this was Dr. Volkow, who said,

1273
00:58:12,367 --> 00:58:13,797
"We need to think about what happened

1274
00:58:13,797 --> 00:58:15,530
"before age nine and 10."

1275
00:58:15,530 --> 00:58:18,680
So we will be asking
retrospectively of the parent,

1276
00:58:18,680 --> 00:58:20,090
the home short form,

1277
00:58:20,090 --> 00:58:22,740
the cognitive stimulation items,

1278
00:58:22,740 --> 00:58:25,630
about books, and puzzles,
and reading, and trips.

1279
00:58:25,630 --> 00:58:26,970
Between ages three and five,

1280
00:58:26,970 --> 00:58:28,760
we'll also be asking retrospectively

1281
00:58:28,760 --> 00:58:30,853
about positive parenting practices.

1282
00:58:32,480 --> 00:58:34,980
How often did you read
stories, sing songs,

1283
00:58:34,980 --> 00:58:38,130
did your child get to
play with other children?

1284
00:58:38,130 --> 00:58:39,530
Did you eat a meal together?

1285
00:58:39,530 --> 00:58:41,780
Screen times and hours on screens.

1286
00:58:41,780 --> 00:58:44,280
So, again, and these are
all based on the literature,

1287
00:58:44,280 --> 00:58:46,550
and I'm happy to talk more about it

1288
00:58:46,550 --> 00:58:47,770

during the Q&A,

1289
00:58:47,770 --> 00:58:49,810
but again, I think it's important

1290
00:58:49,810 --> 00:58:52,530
to look at both the positive
and negative, next slide.

1291
00:58:52,530 --> 00:58:54,990
I think this is the last one.

1292
00:58:54,990 --> 00:58:56,710
So gaps in the research.

1293
00:58:56,710 --> 00:59:00,730
Again, I think we do have
this rich source of data

1294
00:59:00,730 --> 00:59:01,880
in the ABCD data.

1295
00:59:01,880 --> 00:59:04,530
And we do have items
that get it at adversity,

1296
00:59:04,530 --> 00:59:06,960
at trauma, at protective experiences.

1297
00:59:06,960 --> 00:59:10,850
But we need to think about
looking at this change over time,

1298
00:59:10,850 --> 00:59:13,110
and what are the most important periods,

1299
00:59:13,110 --> 00:59:15,560
are there different timing effects?

1300
00:59:15,560 --> 00:59:19,300
And we can do that in the
deepest data set of ABCD.

1301
00:59:19,300 --> 00:59:21,220
We can look at long-term outcomes.

1302
00:59:21,220 --> 00:59:24,690
Also, I think it's important
to, it's been alluded to today,

1303
00:59:24,690 --> 00:59:27,910
look at things outside of just
the typical traumatic events.

1304
00:59:27,910 --> 00:59:30,180
We need to look at things
like discrimination,

1305
00:59:30,180 --> 00:59:32,780
neighborhood violence, which
obviously can be trauma too,

1306
00:59:32,780 --> 00:59:35,940
but things like war,
immigration, natural disasters.

1307
00:59:35,940 --> 00:59:38,040
And the COVID is a really good example

1308
00:59:38,040 --> 00:59:41,240
of being able to do that
within the data set of ABCD.

1309
00:59:41,240 --> 00:59:42,750
Types and timing of intervention.

1310
00:59:42,750 --> 00:59:45,820
So excited today that we're

talking about taking the data

1311
00:59:45,820 --> 00:59:48,000
to interventions and what we can learn.

1312
00:59:48,000 --> 00:59:50,250
And then the importance
of how our interventions

1313
00:59:50,250 --> 00:59:53,380
and our science can impact
policy and government decisions.

1314
00:59:53,380 --> 00:59:55,320
Really thinking about
community level change,

1315
00:59:55,320 --> 00:59:56,550
and it's so important when we're talking

1316
00:59:56,550 --> 00:59:57,930
about substance abuse,

1317
00:59:57,930 --> 01:00:00,580
when we're talking about brain
development within context.

1318
01:00:00,580 --> 01:00:03,600
So I think I got everything
in in 10 minutes.

1319
01:00:03,600 --> 01:00:07,050
- Thanks so much, Dr.
Sheffield, you did a great job.

1320
01:00:07,050 --> 01:00:12,050
Our next presenter is Dr.
Maribel Gonzalez, Dr. Gonzalez?

1321

01:00:14,870 --> 01:00:16,070
- Hi, I am here.

1322
01:00:16,070 --> 01:00:18,680
So I'm gonna go ahead
and bring up my slides.

1323
01:00:18,680 --> 01:00:20,880
- Hi, welcome.

1324
01:00:20,880 --> 01:00:22,700
- Okay, great, hi everyone.

1325
01:00:22,700 --> 01:00:24,750
So thank you for inviting me

1326
01:00:24,750 --> 01:00:27,410
to be part of this workshop today.

1327
01:00:27,410 --> 01:00:28,900
My name is Maribel Gonzalez.

1328
01:00:28,900 --> 01:00:30,330
I am a postdoctoral fellow

1329
01:00:30,330 --> 01:00:31,840
at the University of
California, San Diego,

1330
01:00:31,840 --> 01:00:33,280
and also in associate member

1331
01:00:33,280 --> 01:00:35,320
of various ABCD study-work groups,

1332
01:00:35,320 --> 01:00:36,630
including the culture

1333

01:00:36,630 --> 01:00:38,430
and environment work group with Amanda,

1334
01:00:38,430 --> 01:00:41,370
and also two other work
groups that are responsible

1335
01:00:41,370 --> 01:00:44,430
for linking external data to ABCD Data.

1336
01:00:44,430 --> 01:00:47,240
And today I'll just talk briefly
about some of the measures

1337
01:00:47,240 --> 01:00:51,010
in ABCD for trying to answer
and investigate questions

1338
01:00:51,010 --> 01:00:54,253
about relationships between
the environment and trauma.

1339
01:00:57,180 --> 01:01:00,170
So first I just wanted
to go over a little bit

1340
01:01:00,170 --> 01:01:03,250
on how I think about the environment

1341
01:01:03,250 --> 01:01:04,400
in terms of relation to trauma.

1342
01:01:04,400 --> 01:01:07,270
So trauma is experienced by a individual,

1343
01:01:07,270 --> 01:01:09,060
but the sources of trauma can vary

1344
01:01:01:09,060 --> 01:01:11,260

and occur within various contexts.

1345
01:01:11,260 --> 01:01:12,380
So here we have

1346
01:01:12,380 --> 01:01:14,540
Bronfenbrenner's Ecological
Assistance Framework,

1347
01:01:14,540 --> 01:01:16,710
which posits that developmental outcomes

1348
01:01:16,710 --> 01:01:19,360
are influenced by various
interconnected contexts

1349
01:01:19,360 --> 01:01:23,140
like family, school,
community, and society.

1350
01:01:23,140 --> 01:01:24,630
So given this framework,

1351
01:01:24,630 --> 01:01:27,200
we can hypothesize that
the experience and union,

1352
01:01:27,200 --> 01:01:30,010
the resilience to trauma
might depend on the context,

1353
01:01:30,010 --> 01:01:32,460
or environments that the
individual is immersive.

1354
01:01:36,210 --> 01:01:39,690
And bringing in a health
equity perspective,

1355

01:01:39,690 --> 01:01:43,040
we bring focus to the social
determinants of health.

1356
01:01:43,040 --> 01:01:45,860
So things like economic
and social opportunities,

1357
01:01:45,860 --> 01:01:47,840
home and community living conditions,

1358
01:01:47,840 --> 01:01:50,020
which ultimately influence health outcomes

1359
01:01:50,020 --> 01:01:51,610
at the individual level.

1360
01:01:51,610 --> 01:01:54,540
And I think that really
the ABCD Study does provide

1361
01:01:54,540 --> 01:01:56,860
a unique opportunity to not only look

1362
01:01:56,860 --> 01:01:57,960
at individual outcomes,

1363
01:01:57,960 --> 01:01:59,660
but to also consider how some of these

1364
01:01:59,660 --> 01:02:03,190
contextual environments are
also influencing child health,

1365
01:02:03,190 --> 01:02:04,083
such as trauma.

1366
01:02:07,624 --> 01:02:10,480
Okay, so this is just a brief example

1367
01:02:10,480 --> 01:02:13,820
of how you can conduct an analysis

1368
01:02:13,820 --> 01:02:16,770
to try and look at variability

1369
01:02:16,770 --> 01:02:18,193
across all these different contexts.

1370
01:02:18,193 --> 01:02:21,010
So here we looked at
22 contextual measures

1371
01:02:21,010 --> 01:02:24,910
in the ABCD Study in relation to poverty

1372
01:02:24,910 --> 01:02:27,310
and also cognition and brain structure.

1373
01:02:27,310 --> 01:02:31,040
And here, what I'm showing
you is that we first saw

1374
01:02:31,040 --> 01:02:34,610
a relationship with many of these measures

1375
01:02:34,610 --> 01:02:36,620
with our measure of poverty,

1376
01:02:36,620 --> 01:02:40,700
and three of them were
adverse childhood experiences.

1377
01:02:40,700 --> 01:02:43,210
But really what we were seeing is that

1378
01:02:43,210 --> 01:02:44,350

they weren't the only thing

1379
01:02:44,350 --> 01:02:46,220
that seems to be traveling with poverty.

1380
01:02:46,220 --> 01:02:48,890
So there's adverse school
and family context as well

1381
01:02:48,890 --> 01:02:49,860
that may be traveling.

1382
01:02:49,860 --> 01:02:53,300
Things like housing
security, food security,

1383
01:02:53,300 --> 01:02:55,680
parents' education, the
quality of the neighborhood.

1384
01:02:55,680 --> 01:03:00,250
So this led us to conduct
a leading factor analysis

1385
01:03:00,250 --> 01:03:02,150
to try and derive Linden factors,

1386
01:03:02,150 --> 01:03:05,350
to be able to explain a
little bit of how this,

1387
01:03:05,350 --> 01:03:08,280
all disease measures were
related to each other.

1388
01:03:08,280 --> 01:03:11,730
And we did find three leading
factors that were related

1389

01:03:11,730 --> 01:03:15,160
to cognition and also brain structure.

1390
01:03:15,160 --> 01:03:16,970
But then when we looked more closely,

1391
01:03:16,970 --> 01:03:19,370
we saw that there was an
interaction of poverty

1392
01:03:19,370 --> 01:03:20,203
with the first latent factor.

1393
01:03:20,203 --> 01:03:23,720
And the first inner factor
seemed to be capturing

1394
01:03:23,720 --> 01:03:26,190
a general access to resources

1395
01:03:26,190 --> 01:03:29,250
relative to too little adversity.

1396
01:03:29,250 --> 01:03:34,250
And what was important I think
was that this interaction

1397
01:03:34,290 --> 01:03:37,130
seemed to indicate that
the gap in cognition,

1398
01:03:37,130 --> 01:03:39,730
between children in
poverty and wealthier peers

1399
01:03:39,730 --> 01:03:42,510
narrowed with increases
in this latent factor.

1400

01:03:42,510 --> 01:03:47,510
So this is to say that
perhaps if children,

1401
01:03:47,650 --> 01:03:50,780
even if they're living in a family incomes

1402
01:03:50,780 --> 01:03:53,640
that are at the poverty level
or below the poverty level,

1403
01:03:53,640 --> 01:03:56,210
if they're in environments
that there are better schools,

1404
01:03:56,210 --> 01:03:59,560
better neighborhoods, they're
experiencing less ACEs,

1405
01:03:59,560 --> 01:04:01,310
they have housing, and food security,

1406
01:04:01,310 --> 01:04:02,730
and higher parent education,

1407
01:04:02,730 --> 01:04:06,370
then they're likely to show
better cognitive outcomes,

1408
01:04:06,370 --> 01:04:08,593
even comparable to wealthier peers.

1409
01:04:12,900 --> 01:04:14,300
And as Amanda mentioned,

1410
01:04:14,300 --> 01:04:16,960
another type of trauma
that we didn't look at,

1411

01:04:16,960 --> 01:04:18,190
we didn't include in our analysis,

1412
01:04:18,190 --> 01:04:20,000
is that of discrimination.

1413
01:04:20,000 --> 01:04:24,230
And so we do have in the ABC data set

1414
01:04:24,230 --> 01:04:26,960
a youth report of discrimination.

1415
01:04:26,960 --> 01:04:31,030
This is coming from a questionnaire

1416
01:04:31,030 --> 01:04:35,540
that has four items on their
experience based on race,

1417
01:04:35,540 --> 01:04:37,860
ethnicity, country of origin,

1418
01:04:37,860 --> 01:04:39,750
sexual orientation, and weight.

1419
01:04:39,750 --> 01:04:41,560
And then there's an additional seven items

1420
01:04:41,560 --> 01:04:42,950
which assess the frequency

1421
01:04:42,950 --> 01:04:45,400
of the experience of
discrimination and racism

1422
01:04:45,400 --> 01:04:47,200
due to their ethnic background,

1423

01:04:47,200 --> 01:04:50,040
and this includes in school
and community setting.

1424
01:04:50,040 --> 01:04:52,100
So these are questions about relationships

1425
01:04:52,100 --> 01:04:54,420
with teachers and people in our community.

1426
01:04:54,420 --> 01:04:56,560
So I think that really
there's here in an opportunity

1427
01:04:56,560 --> 01:04:59,350
in the future to look at what
is the influence of racism

1428
01:04:59,350 --> 01:05:02,440
and discrimination in
context of these environments

1429
01:05:02,440 --> 01:05:03,510
of family, school, and community

1430
01:05:03,510 --> 01:05:05,910
on adolescent health and
substance use outcomes.

1431
01:05:09,890 --> 01:05:12,490
And so, as another
mentioned, also, in addition,

1432
01:05:12,490 --> 01:05:17,490
there's the possibility of
pandemic-related trauma.

1433
01:05:17,540 --> 01:05:21,010
So due to all the changes
and in the environments

1434
01:05:21,010 --> 01:05:24,803
of children over the past,
well, over 18 months,

1435
01:05:25,810 --> 01:05:30,810
we likely to expect
children to have experienced

1436
01:05:30,940 --> 01:05:33,200
differences in their trauma.

1437
01:05:33,200 --> 01:05:35,720
And so the ABCD Study did launch

1438
01:05:35,720 --> 01:05:38,710
in a COVID-19 response survey.

1439
01:05:38,710 --> 01:05:43,710
This was a longitudinal study
that started around May, 2020,

1440
01:05:44,330 --> 01:05:46,530
went through July of 2021.

1441
01:05:46,530 --> 01:05:48,610
And this was seven total surveys

1442
01:05:48,610 --> 01:05:51,250
that went out to both
the youth and the parents

1443
01:05:51,250 --> 01:05:54,970
and asked questions about
financial and social hardship,

1444
01:05:54,970 --> 01:05:56,620
COVID risk and exposure,

1445
01:05:56,620 --> 01:05:59,670
youth health and mood, family
dynamics, school situation,

1446
01:05:59,670 --> 01:06:03,000
substance use, along with
many other questions.

1447
01:06:03,000 --> 01:06:04,610
And half of the data,

1448
01:06:04,610 --> 01:06:06,810
actually most of the data
is already available.

1449
01:06:06,810 --> 01:06:10,090
There were special releases
that went out earlier this year

1450
01:06:10,090 --> 01:06:11,600
for surveys one through six.

1451
01:06:11,600 --> 01:06:15,330
And then survey seven
will be coming out shortly

1452
01:06:15,330 --> 01:06:17,280
with a 4.0 release.

1453
01:06:17,280 --> 01:06:20,400
So again, I think there's
an opportunity to see

1454
01:06:20,400 --> 01:06:23,630
how changes in the environment
during the COVID-19 pandemic

1455
01:06:23,630 --> 01:06:26,973
are relating to the child's

experience of trauma.

1456
01:06:29,653 --> 01:06:32,630
In this recent study
by Dr. William Pelham,

1457
01:06:32,630 --> 01:06:35,100
he looked at trends and substance use

1458
01:06:35,100 --> 01:06:38,160
during the COVID-19 pandemic
in the ABCD data set,

1459
01:06:38,160 --> 01:06:41,020
and I started to highlight here briefly

1460
01:06:41,020 --> 01:06:45,710
that in this study, we do see some links

1461
01:06:45,710 --> 01:06:50,300
that perhaps there is evidence
that there is experience

1462
01:06:50,300 --> 01:06:53,850
of trauma that may be
contributing to increased risk

1463
01:06:53,850 --> 01:06:54,873
of substance use.

1464
01:06:56,030 --> 01:07:00,520
So what we saw was that useful,

1465
01:07:00,520 --> 01:07:03,660
more likely to use substances
when they were more stressed

1466
01:07:03,660 --> 01:07:07,610
by pandemic-related uncertainty,

1467
01:07:07,610 --> 01:07:10,960
or when their family
experienced material hardship,

1468
01:07:10,960 --> 01:07:14,070
or their parents use alcohol or drugs,

1469
01:07:14,070 --> 01:07:17,610
or they experienced greater
depression or anxiety.

1470
01:07:17,610 --> 01:07:20,220
So again, really just
more proximal measures

1471
01:07:20,220 --> 01:07:22,250
of possible risk for trauma,

1472
01:07:22,250 --> 01:07:26,570
but these were indeed associated
with a greater increase

1473
01:07:26,570 --> 01:07:31,233
of risk for using substances
during the COVID-19 pandemic.

1474
01:07:37,240 --> 01:07:39,980
Okay, and another component
of the ABCD Study,

1475
01:07:39,980 --> 01:07:42,890
which Dr. Herding will be
talking about more in detail

1476
01:07:42,890 --> 01:07:47,520
is this link external data set

1477
01:07:47,520 --> 01:07:50,012

that we do have for the ABCD Study.

1478
01:07:50,012 --> 01:07:54,763
So there are many various
different datasets

1479
01:07:54,763 --> 01:07:56,990
that are now being linked
and have been linked

1480
01:07:56,990 --> 01:07:57,823
to the ABCD Study,

1481
01:07:57,823 --> 01:08:00,050
and these are usually external datasets

1482
01:08:00,050 --> 01:08:01,960
that are publicly available,

1483
01:08:01,960 --> 01:08:03,610
and contain a wealth of information

1484
01:08:03,610 --> 01:08:05,420
about local neighborhood,

1485
01:08:05,420 --> 01:08:07,440
or community conditions,
or school conditions.

1486
01:08:07,440 --> 01:08:11,290
And so we've had the opportunity
to take those measures,

1487
01:08:11,290 --> 01:08:12,290
which are publicly available

1488
01:08:12,290 --> 01:08:16,440
and also link them and
sync them to ABCD Data.

1489
01:08:16,440 --> 01:08:20,740
Here's a sneak peak for the
Child Opportunity Index 2.0,

1490
01:08:20,740 --> 01:08:25,630
which will be released soon
in the ABCD 4.0 release.

1491
01:08:25,630 --> 01:08:27,140
And so we went ahead and took

1492
01:08:27,140 --> 01:08:29,400
these Child Opportunity Index scores

1493
01:08:29,400 --> 01:08:32,550
and linked them to ABCD participants

1494
01:08:32,550 --> 01:08:34,370
at the census track level.

1495
01:08:34,370 --> 01:08:36,390
And what the COI is,

1496
01:08:36,390 --> 01:08:40,270
it's really a index that was
derived to try and measure

1497
01:08:40,270 --> 01:08:42,147
the overall neighborhood opportunities

1498
01:08:42,147 --> 01:08:43,890
that a child might have.

1499
01:08:43,890 --> 01:08:46,740
And so there's an overall
score that they're given

1500

01:08:46,740 --> 01:08:49,430
based on norms across the country.

1501
01:08:49,430 --> 01:08:50,270
So here's an example,

1502
01:08:50,270 --> 01:08:54,130
I'm just showing you the
map for their website.

1503
01:08:54,130 --> 01:08:56,010
You can go actually to their website

1504
01:08:56,010 --> 01:08:59,160
on diversitydatakids.org, and
you can explore these maps,

1505
01:08:59,160 --> 01:09:01,180
or you can look to see

1506
01:09:01,180 --> 01:09:04,560
the different levels of
opportunity for children.

1507
01:09:04,560 --> 01:09:07,870
And so they also have
sub skills for education,

1508
01:09:07,870 --> 01:09:12,210
health, and environment, social
and economic health as well.

1509
01:09:12,210 --> 01:09:15,950
And we were also able
to include in delinking

1510
01:09:15,950 --> 01:09:17,990
all of the variables that
went into the sub-skills.

1511
01:09:17,990 --> 01:09:20,700
So really a wealth of information,

1512
01:09:20,700 --> 01:09:24,577
everything from food deserts,
to a little bit on pollution,

1513
01:09:26,170 --> 01:09:28,210
and also graduation rates.

1514
01:09:28,210 --> 01:09:29,950
So there's a lot that goes into it.

1515
01:09:29,950 --> 01:09:32,907
So I'm really excited about this release

1516
01:09:32,907 --> 01:09:34,483
that will be coming up.

1517
01:09:36,780 --> 01:09:39,590
And then also in the 4.0 release,

1518
01:09:39,590 --> 01:09:42,720
we will be releasing linked data

1519
01:09:42,720 --> 01:09:45,450
for the Stanford Education Data Archive.

1520
01:09:45,450 --> 01:09:50,450
So this is a data archive that
was created by researchers

1521
01:09:51,730 --> 01:09:53,810
at Stanford to try and come up

1522
01:09:53,810 --> 01:09:56,030
with an index of academic opportunity

1523
01:09:56,030 --> 01:09:59,030
at the school of the child.

1524
01:09:59,030 --> 01:10:02,710
And so again, here is an example of a map.

1525
01:10:02,710 --> 01:10:05,550
There's a toolkit that you
can use on their website,

1526
01:10:05,550 --> 01:10:08,280
where you can also visualize
the different scores

1527
01:10:08,280 --> 01:10:10,240
across the country based
on different criteria.

1528
01:10:10,240 --> 01:10:12,397
So this is just an example of
what their toolkit looks like.

1529
01:10:12,397 --> 01:10:14,170
And you can go on their website as well,

1530
01:10:14,170 --> 01:10:17,533
and play around just to see
what this looks like for you.

1531
01:10:18,630 --> 01:10:22,760
And so this dataset is a
little bit, much more involved,

1532
01:10:22,760 --> 01:10:26,800
but there are metrics
for academic performance

1533
01:10:26,800 --> 01:10:31,800
at the school level for

math and English combined,

1534
01:10:31,840 --> 01:10:33,570
and this is released at the school level.

1535
01:10:33,570 --> 01:10:35,860
And so they do provide the data

1536
01:10:35,860 --> 01:10:38,370
for district level, county level,

1537
01:10:38,370 --> 01:10:40,040
community zone, and metro areas,

1538
01:10:40,040 --> 01:10:44,670
and we went ahead and linked
all of that data to ABCD Data.

1539
01:10:44,670 --> 01:10:47,543
So it's really a wealth of
information that we'll have.

1540
01:10:52,260 --> 01:10:54,150
Okay, and then let's lastly,

1541
01:10:54,150 --> 01:10:56,143
I just wanted to announce,

1542
01:10:57,526 --> 01:11:00,000
I'm very excited that
we've recently launched

1543
01:11:00,000 --> 01:11:02,590
a research topic on Authentic Justice,

1544
01:11:02,590 --> 01:11:05,248
Equity, Diversity, and
Inclusion in Neurosciences.

1545
01:11:05,248 --> 01:11:07,960
And this is special topics
that will be available,

1546
01:11:07,960 --> 01:11:10,160
or is now available in frontiers,

1547
01:11:10,160 --> 01:11:12,270
and with crosses across many journals.

1548
01:11:12,270 --> 01:11:14,720
So please take this
information and go ahead

1549
01:11:14,720 --> 01:11:18,433
and visit the website to
get more details, thank you.

1550
01:11:19,370 --> 01:11:20,920
- Thanks so much, Dr. Gonzalez.

1551
01:11:21,810 --> 01:11:25,800
We've now reached the end of
the last panel presentation,

1552
01:11:25,800 --> 01:11:27,740
and it's going to be delivered

1553
01:11:27,740 --> 01:11:30,613
by Dr. Christopher Hammond, Dr. Hammond?

1554
01:11:39,170 --> 01:11:41,403
- Hello, everyone.
- Hello?

1555
01:11:42,750 --> 01:11:46,460
- All right, just getting my
presentation pulled up here.

1556
01:11:46,460 --> 01:11:48,330
Yes, I'm Dr. Hammond.

1557
01:11:48,330 --> 01:11:53,330
I'm a professor of Child
Psychiatry and Adolescent Medicine

1558
01:11:54,010 --> 01:11:59,010
at Johns Hopkins, and run
clinical and research programs

1559
01:11:59,050 --> 01:12:01,233
focused on youth substance use.

1560
01:12:02,160 --> 01:12:05,293
I'm gonna speak today briefly about really

1561
01:12:07,210 --> 01:12:10,160
the intervention research opportunities

1562
01:12:10,160 --> 01:12:11,970
in the ABCD Study,

1563
01:12:11,970 --> 01:12:14,510
and sort of think out
loud together with you

1564
01:12:14,510 --> 01:12:17,270
about how we can leverage
this study to inform

1565
01:12:17,270 --> 01:12:19,993
future intervention
development and optimization.

1566
01:12:21,210 --> 01:12:26,210
This slide really gives an
overview of what I think

1567
01:12:26,370 --> 01:12:29,530
are our four key approaches
by which the ABCD Study

1568
01:12:29,530 --> 01:12:33,220
can be used to inform future
intervention development.

1569
01:12:33,220 --> 01:12:36,060
I'm gonna walk sort of briefly through

1570
01:12:36,060 --> 01:12:39,863
each of these types of approaches.

1571
01:12:41,620 --> 01:12:45,180
I've ordered them from
really a sort of more distal,

1572
01:12:45,180 --> 01:12:47,480
or indirect connection to more direct,

1573
01:12:47,480 --> 01:12:50,730
or proximal connection.

1574
01:12:50,730 --> 01:12:52,730
And we're gonna explore a little bit

1575
01:12:52,730 --> 01:12:56,520
the different measures that link,

1576
01:12:56,520 --> 01:12:59,093
or sort of map onto each
of these approaches.

1577
01:13:01,070 --> 01:13:03,670
But before we dive into the approaches,

1578
01:13:03,670 --> 01:13:08,670

I think it's helpful to
think about the ABCD Study

1579
01:13:09,300 --> 01:13:11,970
in terms of what types of
measurements and assessments

1580
01:13:11,970 --> 01:13:16,160
are collected, and really
where the study design fits

1581
01:13:16,160 --> 01:13:17,730
within what we think of

1582
01:13:17,730 --> 01:13:20,760
as the larger translational
health research,

1583
01:13:20,760 --> 01:13:22,463
or T-phase continuum.

1584
01:13:23,453 --> 01:13:28,340
And I think ABCD probably
best fits as a hybrid

1585
01:13:28,340 --> 01:13:33,340
between a T1 and a T4
style study with its focus

1586
01:13:34,980 --> 01:13:39,980
on really fine-grained neuro
behavioral characterization

1587
01:13:40,260 --> 01:13:45,150
and assessments, while
at the same time focusing

1588
01:13:47,030 --> 01:13:52,030
on more population level outcomes.

1589
01:13:52,940 --> 01:13:56,240
And because of this hybrid model,

1590
01:13:56,240 --> 01:13:58,580
it really lives in a
space where it can inform

1591
01:13:58,580 --> 01:14:01,710
all phases of translational
health research

1592
01:14:01,710 --> 01:14:04,610
through both reverse translating
and forward translating

1593
01:14:04,610 --> 01:14:06,723
its findings to inform intervention.

1594
01:14:08,120 --> 01:14:11,523
Now, focusing us on adversity,

1595
01:14:12,440 --> 01:14:15,090
as my colleagues mentioned earlier

1596
01:14:15,090 --> 01:14:17,683
at different points in
their presentations,

1597
01:14:18,860 --> 01:14:22,940
childhood trauma, really a
wealth of research points

1598
01:14:22,940 --> 01:14:26,900
to childhood trauma being
associated with differences

1599
01:14:26,900 --> 01:14:29,180
in brain structure and function,

1600
01:14:29,180 --> 01:14:33,030
altered cognition and emotion processing,

1601
01:14:33,030 --> 01:14:33,900
and really a multitude

1602
01:14:33,900 --> 01:14:37,340
of adverse mental and
physical health outcomes.

1603
01:14:37,340 --> 01:14:41,730
But really big questions
still remain in this space

1604
01:14:41,730 --> 01:14:46,730
and in this field related
to how these factors,

1605
01:14:47,030 --> 01:14:48,960
many with modest effect sizes,

1606
01:14:48,960 --> 01:14:53,310
interact and really fit together
to impact health outcomes.

1607
01:14:53,310 --> 01:14:56,580
Additionally, I think it's
really important to note

1608
01:14:56,580 --> 01:15:00,300
that not all youth who
are exposed to adversity,

1609
01:15:00,300 --> 01:15:03,330
or who experienced traumatic events

1610
01:15:03,330 --> 01:15:07,720
go on to develop poor health outcomes.

1611
01:15:07,720 --> 01:15:10,060
And this focus on resilience I think

1612
01:15:10,060 --> 01:15:11,873
is really, really important,

1613
01:15:13,700 --> 01:15:16,140
individual differences exist in the impact

1614
01:15:16,140 --> 01:15:18,830
of childhood trauma on health outcomes.

1615
01:15:18,830 --> 01:15:23,020
And so identifying risky
and resilient phenotypes,

1616
01:15:23,020 --> 01:15:28,017
I think has the strong
possibility of really helping

1617
01:15:29,780 --> 01:15:33,830
to inform intervention matching efforts,

1618
01:15:33,830 --> 01:15:37,830
and really get the youth
who need more support

1619
01:15:37,830 --> 01:15:39,770
to more intensive interventions

1620
01:15:39,770 --> 01:15:41,580
at an earlier stage,

1621
01:15:41,580 --> 01:15:43,610
and potentially improving health outcomes

1622
01:15:43,610 --> 01:15:44,760
through that mechanism.

1623
01:15:46,440 --> 01:15:50,510
The first approach that I
referenced focuses on using

1624
01:15:50,510 --> 01:15:53,450
the ABCD Study to identify neurocognitive

1625
01:15:53,450 --> 01:15:55,640
and biobehavioral features.

1626
01:15:55,640 --> 01:15:59,590
And what I think of is
biobehavioral markers

1627
01:15:59,590 --> 01:16:01,090
that are mediated by adversity

1628
01:16:01,090 --> 01:16:03,730
and relate to persistent
substance use trajectories,

1629
01:16:03,730 --> 01:16:05,643
or negative health outcomes.

1630
01:16:07,235 --> 01:16:11,880
And then really to
replicate these biomarkers

1631
01:16:11,880 --> 01:16:13,430
and out of sample datasets,

1632
01:16:13,430 --> 01:16:17,430
and really then subsequently
to prospectively test

1633
01:16:17,430 --> 01:16:22,430
their clinical relevance
in clinical samples,

1634
01:16:23,160 --> 01:16:26,060
whether that be using
naturalistic treatment studies,

1635
01:16:26,060 --> 01:16:28,573
or randomized controlled trials.

1636
01:16:31,192 --> 01:16:36,192
While a lot of the focus in
the trauma world is on trauma,

1637
01:16:36,360 --> 01:16:40,140
I think it's helpful
to pull back and state

1638
01:16:40,140 --> 01:16:42,480
that approaches that
don't necessarily focus

1639
01:16:42,480 --> 01:16:45,720
explicitly on trauma may also be helpful

1640
01:16:45,720 --> 01:16:47,260
in terms of our understanding

1641
01:16:47,260 --> 01:16:49,523
of long-term health
outcome of these youth.

1642
01:16:50,580 --> 01:16:53,058
There's really a growing
literature showing evidence

1643
01:16:53,058 --> 01:16:56,820
for parallel genetic neuroanatomical,

1644
01:16:56,820 --> 01:16:58,370
and brain function alterations

1645
01:16:58,370 --> 01:17:00,100
across psychiatric disorders

1646
01:17:00,100 --> 01:17:03,850
that suggest trans diagnostic impairments.

1647
01:17:03,850 --> 01:17:06,780
I'm part of an ABCD work group

1648
01:17:06,780 --> 01:17:10,190
in the NIDA Intramural Research program's

1649
01:17:10,190 --> 01:17:13,490
neuroimaging branch led by Yihong Yang.

1650
01:17:13,490 --> 01:17:17,350
And our group has really
taken a data-driven

1651
01:17:17,350 --> 01:17:19,760
and analytic forward
approach to identifying

1652
01:17:19,760 --> 01:17:21,750
bio behavioral markers.

1653
01:17:21,750 --> 01:17:24,980
This slide based upon a project

1654
01:17:24,980 --> 01:17:27,180
spearheaded by Xiang Xiao,

1655
01:17:27,180 --> 01:17:28,617
a postdoc in the NRB.

1656
01:17:30,120 --> 01:17:32,370
We've used a machine

learning approach called

1657
01:17:32,370 --> 01:17:35,380
sparse canonical correlation analysis

1658
01:17:35,380 --> 01:17:40,380
to look at latent biotypes that correlate

1659
01:17:41,530 --> 01:17:44,730
with cognitive and mental health outcomes

1660
01:17:44,730 --> 01:17:47,980
from 7,000 youth who are in the first wave

1661
01:17:47,980 --> 01:17:50,773
of the ABCD Study.

1662
01:17:53,040 --> 01:17:55,650
And our results have been quite promising.

1663
01:17:55,650 --> 01:17:57,330
Our results identified

1664
01:17:57,330 --> 01:18:01,170
a single connectome-based
latent brain bio-type

1665
01:18:01,170 --> 01:18:03,310
that was positively
correlated with performance

1666
01:18:03,310 --> 01:18:06,420
on cognitive measures across domains,

1667
01:18:06,420 --> 01:18:08,410
and was negatively correlated with self

1668
01:18:08,410 --> 01:18:12,450

and parent-reported
psychopathology across domains.

1669
01:18:12,450 --> 01:18:16,100
And examining this bio-type
across brain regions

1670
01:18:18,960 --> 01:18:22,233
and networks as shown in
figure two here on the left,

1671
01:18:23,650 --> 01:18:27,100
the bio-type really mapped onto
a distributed brain network

1672
01:18:28,240 --> 01:18:30,080
with increased functional connectivity

1673
01:18:30,080 --> 01:18:31,920
and hetero modal brain regions

1674
01:18:31,920 --> 01:18:35,703
involved in higher order
cognitive processes,

1675
01:18:36,640 --> 01:18:38,400
and decreased functional connectivity,

1676
01:18:38,400 --> 01:18:39,940
and union modal brain regions

1677
01:18:39,940 --> 01:18:43,363
associated with more lower
order sensory motor processing.

1678
01:18:44,700 --> 01:18:48,200
Figure three shows really
the clinical relevance

1679

01:18:48,200 --> 01:18:49,453
of this bio-type.

1680
01:18:52,040 --> 01:18:55,260
Our latent connectome based brain bio-type

1681
01:18:55,260 --> 01:18:58,830
showed a dose dependent
relationship with psychopathology

1682
01:18:58,830 --> 01:19:00,570
becoming more negatively correlated

1683
01:19:00,570 --> 01:19:02,880
with psychopathology as a function

1684
01:19:02,880 --> 01:19:05,290
of the cumulative number
of psychiatric diagnoses

1685
01:19:05,290 --> 01:19:06,760
in the sample.

1686
01:19:06,760 --> 01:19:09,363
That's really collectively
these results point,

1687
01:19:10,400 --> 01:19:14,800
at least preliminarily to a
connectome based biomarker

1688
01:19:14,800 --> 01:19:18,560
that indexes individual
differences in cognitive control,

1689
01:19:18,560 --> 01:19:21,970
and predict psychopathology
in a dose dependent fashion.

1690

01:19:21,970 --> 01:19:24,663
And when the process of examining

1691
01:19:25,540 --> 01:19:28,230
the impact of childhood
adversity on this biomarker

1692
01:19:28,230 --> 01:19:31,370
and looking at its predictive value

1693
01:19:31,370 --> 01:19:33,563
for persistent mental health outcomes.

1694
01:19:34,430 --> 01:19:36,310
Now shifting away from the neurobiology

1695
01:19:36,310 --> 01:19:39,560
back towards specifically interventions

1696
01:19:39,560 --> 01:19:41,520
as a clinician, I think
it's really important

1697
01:19:41,520 --> 01:19:43,477
to just note that, you know, substance use

1698
01:19:43,477 --> 01:19:47,240
and mental health interventions
fall along the continuum

1699
01:19:47,240 --> 01:19:49,870
from prevention to early intervention,

1700
01:19:49,870 --> 01:19:52,173
to treatment across different levels.

1701
01:19:53,380 --> 01:19:57,010
And so really what I think
of as approach number two

1702
01:19:57,910 --> 01:20:01,133
is to focus on using the ABCD data set,

1703
01:20:02,380 --> 01:20:07,070
and in particular behavioral
and lifestyle variables,

1704
01:20:07,070 --> 01:20:10,700
youth and parent self-report
regarding coping strategies,

1705
01:20:10,700 --> 01:20:15,690
parenting behaviors,
relationships, lifestyle choices,

1706
01:20:15,690 --> 01:20:18,190
and identifying from these variables,

1707
01:20:18,190 --> 01:20:21,363
mediators and moderators
of response to adversity,

1708
01:20:22,880 --> 01:20:26,580
and substance use, and
other health outcomes.

1709
01:20:26,580 --> 01:20:28,240
And then using these results to guide

1710
01:20:28,240 --> 01:20:31,170
what I'd call intervention redesign

1711
01:20:31,170 --> 01:20:34,260
that is optimizing our current prevention

1712
01:20:34,260 --> 01:20:36,480
and intervention strategies,

1713
01:20:36,480 --> 01:20:38,450
focusing more on what works best

1714
01:20:38,450 --> 01:20:40,980
based upon those factors

1715
01:20:40,980 --> 01:20:43,560
that really have the largest effect sizes

1716
01:20:43,560 --> 01:20:44,713
for health outcomes.

1717
01:20:45,650 --> 01:20:49,800
And then using previously
un/under-identified features

1718
01:20:49,800 --> 01:20:52,970
to inform the development
of novel prevention,

1719
01:20:52,970 --> 01:20:54,590
and early intervention programs

1720
01:20:54,590 --> 01:20:56,363
that may have unique mechanisms.

1721
01:20:58,560 --> 01:21:02,510
I really think that this focus
area is really predicated on

1722
01:21:02,510 --> 01:21:06,130
the fact that there are
both common mechanisms

1723
01:21:06,130 --> 01:21:09,000
and also distinct mechanisms that underlie

1724
01:21:09,990 --> 01:21:12,660

the effectiveness of
substance use prevention,

1725
01:21:12,660 --> 01:21:16,020
interventions, and trauma-focused care.

1726
01:21:16,020 --> 01:21:20,683
And that as the ABCD
protocol was designed,

1727
01:21:22,640 --> 01:21:25,623
while it's not an
intervention based protocol,

1728
01:21:26,677 --> 01:21:29,230
what it does do well, is it measures

1729
01:21:29,230 --> 01:21:31,440
a number of these factors that we think of

1730
01:21:31,440 --> 01:21:34,783
as maybe treatment intermediates
or mechanisms of treatment.

1731
01:21:36,000 --> 01:21:39,570
Now approaches three and
four focus on mental health

1732
01:21:39,570 --> 01:21:42,140
and substance use service utilization ,

1733
01:21:42,140 --> 01:21:45,110
and medication effects in the ABCD Study.

1734
01:21:45,110 --> 01:21:47,170
And I've included a table here

1735
01:21:48,210 --> 01:21:50,723
showing the

intervention-related variables.

1736
01:21:52,639 --> 01:21:54,040
- And Dr. Hammond, I just
wanted to let you know

1737
01:21:54,040 --> 01:21:55,220
where at times,

1738
01:21:55,220 --> 01:21:58,400
so I didn't know if you wanted
to have any final remarks.

1739
01:21:58,400 --> 01:22:00,773
- So, yeah, so just as a final remark,

1740
01:22:02,530 --> 01:22:04,880
I think my other colleagues
did a wonderful job

1741
01:22:04,880 --> 01:22:08,150
of referencing really the
importance of health disparities,

1742
01:22:08,150 --> 01:22:10,430
research, and the service
utilization data here

1743
01:22:10,430 --> 01:22:12,450
can really inform that,

1744
01:22:12,450 --> 01:22:16,800
and can also inform a more
directly an understanding

1745
01:22:18,085 --> 01:22:23,000
of health service trajectories,
and the impact of treatment,

1746

01:22:23,000 --> 01:22:25,690
and medication effects on health outcomes,

1747
01:22:25,690 --> 01:22:29,690
and on brain development,
and so I'll end there.

1748
01:22:29,690 --> 01:22:32,380
Thank you.
- Thanks so much.

1749
01:22:32,380 --> 01:22:34,780
So we've now arrived at the destination

1750
01:22:34,780 --> 01:22:36,630
of our panel discussion.

1751
01:22:36,630 --> 01:22:41,340
We wanna encourage a very
interactive and rich discussion

1752
01:22:41,340 --> 01:22:42,510
amongst different fields.

1753
01:22:42,510 --> 01:22:46,520
So now would be the time to
start entering questions,

1754
01:22:46,520 --> 01:22:50,580
to the Q&A that are more
conceptual, intellectual, global,

1755
01:22:50,580 --> 01:22:53,300
that are really meant to
challenge our way of thinking

1756
01:22:53,300 --> 01:22:55,540
and to get out of our silos.

1757

01:22:55,540 --> 01:22:58,310
Just wanted to mention that
many of the questions to date

1758
01:22:58,310 --> 01:23:00,910
have been technical, and
we've tried to answer those

1759
01:23:00,910 --> 01:23:03,030
as close to real time as possible.

1760
01:23:03,030 --> 01:23:05,360
And we can of course answer those as well

1761
01:23:05,360 --> 01:23:07,070
if our time remains,

1762
01:23:07,070 --> 01:23:11,170
but I wanted to introduce the
esteem Velma McBride Murry.

1763
01:23:11,170 --> 01:23:12,433
I'll turn it over to you.

1764
01:23:13,280 --> 01:23:15,480
- Hey, delighted to be here, Dr. Deeds,

1765
01:23:15,480 --> 01:23:20,170
and an incredible panel that
just some exciting work.

1766
01:23:20,170 --> 01:23:23,960
And really, really glad to
hear that the research findings

1767
01:23:23,960 --> 01:23:26,170
have begun to emerge with the ABCD.

1768
01:23:26,170 --> 01:23:28,430

And I'll just say as a note

1769
01:23:28,430 --> 01:23:32,250
that when the call first
came out, Dr. Umurow and I

1770
01:23:32,250 --> 01:23:34,070
submitted an application,

1771
01:23:34,070 --> 01:23:36,010
and unfortunately we were not selected

1772
01:23:36,010 --> 01:23:37,630
to be part of this esteem group,

1773
01:23:37,630 --> 01:23:40,823
but I'm really, really
delighted to be here today.

1774
01:23:41,660 --> 01:23:45,040
So I will begin with some thoughts

1775
01:23:45,040 --> 01:23:47,850
about what Dr. Blanco mentioned

1776
01:23:49,339 --> 01:23:51,620
during his brief conversation with us

1777
01:23:51,620 --> 01:23:53,390
in terms of the charge.

1778
01:23:53,390 --> 01:23:55,540
And he talked about the importance of us

1779
01:23:55,540 --> 01:23:57,730
really needing to look at the data

1780
01:23:58,640 --> 01:24:01,990

for the purpose of moving
multiple fields forward,

1781
01:24:01,990 --> 01:24:04,920
and including some of the
fields that have not been

1782
01:24:04,920 --> 01:24:07,470
part of these research studies.

1783
01:24:07,470 --> 01:24:11,190
And you mentioned epi
researchers, neuro researchers,

1784
01:24:11,190 --> 01:24:13,080
and prevention researchers.

1785
01:24:13,080 --> 01:24:16,990
And he mentioned the importance
of having the findings

1786
01:24:16,990 --> 01:24:20,380
begin to inform the
field of public health.

1787
01:24:20,380 --> 01:24:24,520
And so, as I listened to
the presentations today,

1788
01:24:24,520 --> 01:24:27,670
and have read several of the articles

1789
01:24:27,670 --> 01:24:31,950
that were shared in preparation
for the session today,

1790
01:24:31,950 --> 01:24:36,527
a lot of what's been written
about and addressed today,

1791
01:24:38,500 --> 01:24:42,430
reflect a lot of
developmental researchers.

1792
01:24:42,430 --> 01:24:47,380
It looks like what I would
think about in my own work,

1793
01:24:47,380 --> 01:24:49,120
as a developmental scientist,

1794
01:24:49,120 --> 01:24:52,180
that is also a prevention scientist.

1795
01:24:52,180 --> 01:24:56,980
And what I'd like for you to
begin to help us understand...

1796
01:24:56,980 --> 01:24:58,570
One are the areas, for example,

1797
01:24:58,570 --> 01:25:02,240
that is really intriguing
to me is that you have

1798
01:25:02,240 --> 01:25:03,910
these very rich environmental,

1799
01:25:03,910 --> 01:25:08,400
cultural-related contextual variables.

1800
01:25:08,400 --> 01:25:13,400
And it allows for us to see how the brain

1801
01:25:13,500 --> 01:25:16,570
is actually changing.

1802
01:25:16,570 --> 01:25:20,380

As Dr. Hammond said, it's
structure and function

1803
01:25:20,380 --> 01:25:24,370
as a consequence of the
work that you're doing,

1804
01:25:24,370 --> 01:25:26,080
where is the brain?

1805
01:25:26,080 --> 01:25:27,000
In other words,

1806
01:25:27,000 --> 01:25:32,000
how might I know how
racism gets on the brain,

1807
01:25:32,310 --> 01:25:35,517
and then begins to influence people.