

WEBVTT

1 00:00:03.070 --> 00:00:04.390 <v ->So, hi everyone,</v>  
2 00:00:04.390 --> 00:00:05.987 thank you for coming in person  
3 00:00:05.987 --> 00:00:09.270 and also thank you for our online audiences.  
4 00:00:09.270 --> 00:00:11.870 So today, it's my great honor  
5 00:00:11.870 --> 00:00:16.510 to have Dr. Diana Hernandez joining us.  
6 00:00:16.510 --> 00:00:19.740 Dr. Hernandez is currently Associate Professor  
7 00:00:19.740 --> 00:00:23.500 of Social Medical Sciences  
8 00:00:23.500 --> 00:00:27.030 in the Columbia University Mailman School of  
Public Health.  
9 00:00:27.030 --> 00:00:29.920 Her work examines the impacts of policy  
10 00:00:29.920 --> 00:00:32.800 and place-based interventions on the health  
11 00:00:32.800 --> 00:00:36.530 and well-being on social economic (mumbles)  
12 00:00:38.086 --> 00:00:40.150 She has an advanced look at the concept  
13 00:00:40.150 --> 00:00:42.460 which (mumbles) today,  
14 00:00:42.460 --> 00:00:45.580 energy insecurity to reflect the changes  
15 00:00:45.580 --> 00:00:49.170 associated with meeting basic household ener-  
gies  
16 00:00:49.170 --> 00:00:51.093 and its links to house.  
17 00:00:52.110 --> 00:00:54.920 And Dr. Hernandez is currently a (mumbles)  
scholar  
18 00:00:54.920 --> 00:00:57.260 at the Russell Sage Foundation  
19 00:00:57.260 --> 00:00:59.536 where she is currently writing a book,  
20 00:00:59.536 --> 00:01:01.890 "Energy Insecurity in The US."  
21 00:01:01.890 --> 00:01:03.580 So while we're very much looking forward  
22 00:01:03.580 --> 00:01:05.600 to her forthcoming book,  
23 00:01:05.600 --> 00:01:07.320 we're very fortunate today  
24 00:01:07.320 --> 00:01:10.470 to have a pre-overview over her work.  
25 00:01:10.470 --> 00:01:12.613 So without further ado, Dr. Hernandez.  
26 00:01:17.121 --> 00:01:17.954 <v ->Of course, I'm muted.</v>  
27 00:01:17.954 --> 00:01:20.360 Hi, thank you so much for the introduction.  
28 00:01:20.360 --> 00:01:23.050 I'm really excited to be here today

29 00:01:24.140 --> 00:01:27.690 to share some of this kind of ongoing work  
30 00:01:27.690 --> 00:01:31.120 on energy insecurity as you stated, Kai.  
31 00:01:31.120 --> 00:01:33.730 I'm going to share my screen again  
32 00:01:33.730 --> 00:01:34.800 and get started.  
33 00:01:34.800 --> 00:01:38.810 I will warn you that I am a New Yorker  
34 00:01:38.810 --> 00:01:40.190 and I speak fast.  
35 00:01:40.190 --> 00:01:43.800 I'm also planning on covering quite a bit of  
material,  
36 00:01:43.800 --> 00:01:47.740 but also want to leave time for questions and  
answers  
37 00:01:48.820 --> 00:01:50.430 later on in the session.  
38 00:01:50.430 --> 00:01:52.250 So by all means,  
39 00:01:52.250 --> 00:01:55.290 and I'm a little shy on Twitter,  
40 00:01:55.290 --> 00:01:56.993 but please do,  
41 00:01:58.330 --> 00:02:03.330 you know, tag me on Twitter @DrDianaHer-  
nandez  
42 00:02:03.968 --> 00:02:06.490 without the E, the second E.  
43 00:02:06.490 --> 00:02:07.530 So I'm gonna tell you a little bit  
44 00:02:07.530 --> 00:02:10.340 about my academic interests.  
45 00:02:10.340 --> 00:02:11.410 I'll kind of give you a sense  
46 00:02:11.410 --> 00:02:13.720 of the four pillars of housing,  
47 00:02:13.720 --> 00:02:15.740 talk about what energy insecurity is,  
48 00:02:15.740 --> 00:02:18.720 as well as housing and policy interventions  
49 00:02:18.720 --> 00:02:20.243 to address this issue.  
50 00:02:22.300 --> 00:02:23.983 Let me just kind of say that  
51 00:02:23.983 --> 00:02:26.280 I've been doing work on  
52 00:02:26.280 --> 00:02:29.030 at the intersection of energy equity, housing  
and health  
53 00:02:29.030 --> 00:02:32.290 for over a decade now.  
54 00:02:32.290 --> 00:02:34.230 And there was a time  
55 00:02:34.230 --> 00:02:36.660 when the social determinants of health  
56 00:02:36.660 --> 00:02:38.460 and environmental determinants of health

57 00:02:38.460 --> 00:02:40.193 were kind of separate entities.

58 00:02:41.090 --> 00:02:43.970 And there are some of us that are kind of working

59 00:02:43.970 --> 00:02:47.980 on bringing these two fields together,

60 00:02:47.980 --> 00:02:50.963 because of course, they kind of intersect.

61 00:02:51.870 --> 00:02:53.630 In addition to doing that,

62 00:02:53.630 --> 00:02:55.480 I've been working on, you know,

63 00:02:55.480 --> 00:02:58.320 kind of these joint concepts of energy insecurity

64 00:02:58.320 --> 00:02:59.900 and energy justice,

65 00:02:59.900 --> 00:03:02.070 thinking about housing and robust ways

66 00:03:02.070 --> 00:03:05.170 poverty and community-engaged research,

67 00:03:05.170 --> 00:03:08.283 as well as social and public health entrepreneurship.

68 00:03:10.540 --> 00:03:12.770 The bulk of my work has actually been

69 00:03:12.770 --> 00:03:15.770 about looking at interventions.

70 00:03:15.770 --> 00:03:18.060 I've been fortunate to do

71 00:03:18.060 --> 00:03:23.060 kind of real life-based research projects related to legals,

72 00:03:24.820 --> 00:03:28.380 the kind of provision of legal services

73 00:03:28.380 --> 00:03:33.130 to address housing problems, energy efficiency,

74 00:03:33.130 --> 00:03:35.510 and clean heat interventions,

75 00:03:35.510 --> 00:03:38.910 the privatization or the repositioning of public housing,

76 00:03:38.910 --> 00:03:42.570 thinking about climate change and emergency preparedness,

77 00:03:42.570 --> 00:03:46.830 housing-based social and health interventions.

78 00:03:46.830 --> 00:03:50.570 So basically, the provision of these kinds of services

79 00:03:50.570 --> 00:03:52.280 within housing spheres

80 00:03:52.280 --> 00:03:56.160 and also smoke-free housing and social impact real estate.

81 00:03:56.160 --> 00:03:59.750 I will cover a lot of those in my talk today,

82 00:03:59.750 --> 00:04:02.140 but I always like to kind of share this image

83 00:04:02.140 --> 00:04:04.250 because in some ways,  
84 00:04:04.250 --> 00:04:06.370 the real essence of the work that I've been  
doing  
85 00:04:06.370 --> 00:04:09.730 is about expanding the notion of sick buildings,  
86 00:04:09.730 --> 00:04:11.630 and vulnerable occupants,  
87 00:04:11.630 --> 00:04:14.160 along with intervention strategies.  
88 00:04:14.160 --> 00:04:16.740 Kind of realizing that our housing  
89 00:04:16.740 --> 00:04:18.703 or the people that live in housing,  
90 00:04:19.660 --> 00:04:23.450 especially those that are kind of more vulner-  
able,  
91 00:04:23.450 --> 00:04:28.450 need to continue to experience that disadvan-  
tage  
92 00:04:28.840 --> 00:04:32.190 and the kind of health risks they're in.  
93 00:04:32.190 --> 00:04:34.390 So I want to really start.  
94 00:04:34.390 --> 00:04:38.880 You know this conversation will be about house-  
hold energy,  
95 00:04:38.880 --> 00:04:43.740 but I'd be remiss not to kind of put household  
energy  
96 00:04:43.740 --> 00:04:47.920 within the context of a nuanced appreciation  
97 00:04:49.000 --> 00:04:51.633 of what housing actually represents.  
98 00:04:52.646 --> 00:04:56.370 And thinking about housing  
99 00:04:56.370 --> 00:04:59.400 as having kind of more than one pillar,  
100 00:04:59.400 --> 00:05:03.340 so it is in some ways a physical entity.  
101 00:05:03.340 --> 00:05:05.290 It's a social entity.  
102 00:05:05.290 --> 00:05:10.290 But it is really about these kind of four areas;  
103 00:05:10.630 --> 00:05:15.630 costs, conditions, consistency and context.  
104 00:05:16.020 --> 00:05:19.820 And what I have found over the years is that,  
105 00:05:19.820 --> 00:05:23.760 many people make trade-offs at these inter-  
sections  
106 00:05:23.760 --> 00:05:27.550 between, let's say, cost and conditions.  
107 00:05:27.550 --> 00:05:29.540 So the poor,  
108 00:05:29.540 --> 00:05:31.410 for instance, might be relegated  
109 00:05:31.410 --> 00:05:36.070 to some of the kind of poorest quality housing.

110 00:05:36.070 --> 00:05:41.070 They are also much more likely to experience displacement,

111 00:05:44.940 --> 00:05:46.740 sometimes from climate change,

112 00:05:46.740 --> 00:05:49.190 sometimes from economic forces.

113 00:05:49.190 --> 00:05:52.990 So the consistency of their housing is at risk.

114 00:05:52.990 --> 00:05:54.050 And then also,

115 00:05:54.050 --> 00:05:57.580 we know so much about the interplay between kind of,

116 00:05:57.580 --> 00:05:59.990 or neighborhood effects, essentially.

117 00:05:59.990 --> 00:06:02.430 But there's an interplay between housing effects

118 00:06:02.430 --> 00:06:03.960 and neighborhood effects.

119 00:06:03.960 --> 00:06:06.920 So that what's happening in the outer core

120 00:06:06.920 --> 00:06:07.820 if we're thinking about it

121 00:06:07.820 --> 00:06:10.710 from a social-ecological perspective,

122 00:06:10.710 --> 00:06:12.920 also has implications for what's happening

123 00:06:12.920 --> 00:06:16.190 inside people's homes, and vice versa.

124 00:06:16.190 --> 00:06:20.860 So, part of my work has been about just laying out

125 00:06:20.860 --> 00:06:23.490 what the nuances of housing are,

126 00:06:23.490 --> 00:06:27.450 situating it in the kind of historical policies

127 00:06:27.450 --> 00:06:31.770 and practices that have made housing distribution

128 00:06:34.300 --> 00:06:38.320 quite different and segregated and separate,

129 00:06:38.320 --> 00:06:40.950 but not equal in the same ways

130 00:06:40.950 --> 00:06:44.640 that education has historically kind of unfolded.

131 00:06:44.640 --> 00:06:48.580 And so this is just kind of a heuristic

132 00:06:48.580 --> 00:06:52.054 to appreciate the various policies

133 00:06:52.054 --> 00:06:56.890 from Native American displacements to reservations,

134 00:06:56.890 --> 00:07:01.890 to public housing, redlining, exclusionary zoning

135 00:07:02.150 --> 00:07:04.170 as formal policies,  
 136 00:07:04.170 --> 00:07:07.860 but also the kind of discriminatory practices  
 137 00:07:07.860 --> 00:07:10.810 that were materialized through (mumbles)  
 138 00:07:10.810 --> 00:07:14.980 Sorry, racial residential covenants, predatory  
 lending,  
 139 00:07:14.980 --> 00:07:17.760 and more recently, gentrification.  
 140 00:07:17.760 --> 00:07:21.640 And the impacts of this have everything to  
 do with health.  
 141 00:07:21.640 --> 00:07:24.500 And health, in its physical forms  
 142 00:07:24.500 --> 00:07:26.880 and also in its mental forms,  
 143 00:07:26.880 --> 00:07:29.350 the kind of idea around wellbeing.  
 144 00:07:29.350 --> 00:07:32.750 These pillars of housing that I just described,  
 145 00:07:32.750 --> 00:07:37.750 really kind of reflect larger structures and  
 mechanisms  
 146 00:07:37.760 --> 00:07:40.780 through which housing is impacted.  
 147 00:07:40.780 --> 00:07:45.650 And then also how kind of independently and  
 together,  
 148 00:07:45.650 --> 00:07:50.340 they ultimately kind of impact overall health,  
 149 00:07:50.340 --> 00:07:52.973 chronic disease, infectious disease,  
 150 00:07:53.850 --> 00:07:57.900 injury, maternal health, and other dimensions  
 of health.  
 151 00:07:57.900 --> 00:07:59.923 And so with that,  
 152 00:08:00.780 --> 00:08:02.460 I will say that,  
 153 00:08:02.460 --> 00:08:07.460 in some ways, my understanding of housing  
 154 00:08:07.930 --> 00:08:09.230 and how nuanced it is,  
 155 00:08:09.230 --> 00:08:13.220 and also how segregated neighborhoods basi-  
 cally  
 156 00:08:13.220 --> 00:08:17.410 have implications for life chances came for  
 certain  
 157 00:08:18.420 --> 00:08:20.810 in my training as a sociologist,  
 158 00:08:20.810 --> 00:08:23.590 but also in my lived experience as a New  
 Yorker  
 159 00:08:23.590 --> 00:08:26.400 and someone who grew up in a disadvantaged  
 neighborhood

160 00:08:26.400 --> 00:08:29.674 in subsidized housing in the Bronx.  
161 00:08:29.674 --> 00:08:31.670 And so I always like to start my talks  
162 00:08:31.670 --> 00:08:33.890 just kind of positioning myself  
163 00:08:33.890 --> 00:08:36.760 on what I understand locally.  
164 00:08:36.760 --> 00:08:40.290 So this is Manhattan.  
165 00:08:40.290 --> 00:08:41.310 Some of you may be familiar,  
166 00:08:41.310 --> 00:08:42.220 this is Central Park,  
167 00:08:42.220 --> 00:08:43.370 which is obviously a,  
168 00:08:43.370 --> 00:08:47.790 you know, kind of a huge organizing green  
space  
169 00:08:47.790 --> 00:08:49.170 in this city.  
170 00:08:49.170 --> 00:08:52.580 This is Staten Island, Brooklyn, Queens and  
the Bronx,  
171 00:08:52.580 --> 00:08:55.220 that makes up the five boroughs of New York  
City.  
172 00:08:55.220 --> 00:08:56.610 And as you can tell,  
173 00:08:56.610 --> 00:08:59.390 just by the kind of deep blue,  
174 00:08:59.390 --> 00:09:01.473 that the Bronx is pretty poor.  
175 00:09:02.560 --> 00:09:06.740 And that that poverty is pretty concentrated  
176 00:09:06.740 --> 00:09:08.020 at the borough level,  
177 00:09:08.020 --> 00:09:10.800 and also in other pockets of the city.  
178 00:09:10.800 --> 00:09:15.800 And that actually doesn't just stop at the  
level of poverty.  
179 00:09:17.490 --> 00:09:21.100 It also has implications for things like rent  
burden.  
180 00:09:21.100 --> 00:09:26.100 So how much people pay for housing relative  
to their income.  
181 00:09:26.560 --> 00:09:28.300 So that in the same places  
182 00:09:28.300 --> 00:09:31.010 that are kind of most impoverished,  
183 00:09:31.010 --> 00:09:34.490 they also tend to have the highest rent burdens  
184 00:09:35.550 --> 00:09:37.534 in New York City.  
185 00:09:37.534 --> 00:09:41.140 So Bronx residents are more rent burdened,  
186 00:09:41.140 --> 00:09:42.713 for instance, than others.

187 00:09:43.600 --> 00:09:44.530 This is kind of going.  
188 00:09:44.530 --> 00:09:45.610 It has a mind of its own.  
189 00:09:45.610 --> 00:09:48.120 I don't know what's going on, but anyway.  
190 00:09:48.120 --> 00:09:49.900 So with rent burden,  
191 00:09:49.900 --> 00:09:53.072 you know, kind of a consequence of rent burden  
192 00:09:53.072 --> 00:09:55.220 might be evictions.  
193 00:09:55.220 --> 00:09:57.900 And now mind you, obviously in the pandemic,  
194 00:09:57.900 --> 00:10:02.900 we've had city, state and federal level policies  
195 00:10:03.570 --> 00:10:06.910 kind of banning evictions.  
196 00:10:06.910 --> 00:10:08.350 But prior to that,  
197 00:10:08.350 --> 00:10:12.520 in 2018, the Bronx, an impoverished area,  
198 00:10:12.520 --> 00:10:14.630 an area that's highly rent burdened,  
199 00:10:14.630 --> 00:10:16.750 was also probably not surprisingly  
200 00:10:16.750 --> 00:10:20.240 most impacted by evictions.  
201 00:10:20.240 --> 00:10:25.240 So, of the 20,000 or so evictions that happened in 2018,  
202 00:10:26.000 --> 00:10:29.970 the bulk of them were happening in the Bronx.  
203 00:10:29.970 --> 00:10:31.460 And this is important  
204 00:10:31.460 --> 00:10:33.910 because there have been interesting interventions,  
205 00:10:33.910 --> 00:10:37.350 including the provision of legal services  
206 00:10:37.350 --> 00:10:39.700 for tenants in housing court  
207 00:10:39.700 --> 00:10:42.480 to kind of better balance the relationship  
208 00:10:42.480 --> 00:10:46.080 between landlords and tenants in court,  
209 00:10:46.080 --> 00:10:50.133 and give tenants a fighting chance around the evictions.  
210 00:10:52.470 --> 00:10:54.490 But it doesn't stop there.  
211 00:10:54.490 --> 00:10:56.853 So just, you know, we talked about,  
212 00:10:57.750 --> 00:11:00.730 the different dimensions of housing rent.  
213 00:11:00.730 --> 00:11:05.270 So poverty kind of fits within that context bucket.



214 00:11:05.270 --> 00:11:10.270 The cost fits within obviously the rent burden,  
215 00:11:10.280 --> 00:11:15.280 the consistency of housing is reflected in the  
evictions.  
216 00:11:15.440 --> 00:11:17.470 And then there's homes,  
217 00:11:17.470 --> 00:11:20.030 access to healthy homes, essentially.  
218 00:11:20.030 --> 00:11:22.507 And what you see in this map,  
219 00:11:26.110 --> 00:11:29.220 is essentially that people that live in the Bronx  
220 00:11:30.310 --> 00:11:33.090 have the least access to healthy housing,  
221 00:11:33.090 --> 00:11:37.710 and the most access is happening in areas that  
are kind of,  
222 00:11:37.710 --> 00:11:39.260 that are higher (mumbles)  
223 00:11:39.260 --> 00:11:40.700 of people that live,  
224 00:11:40.700 --> 00:11:43.163 you know, have higher socio-economic posi-  
tions.  
225 00:11:44.450 --> 00:11:47.403 And that's also true around heat complaints.  
226 00:11:48.430 --> 00:11:52.150 So that residents of the Bronx are much more  
likely  
227 00:11:52.150 --> 00:11:56.640 to call in to the city's 311 line  
228 00:11:56.640 --> 00:12:01.640 to report having no heat or hot water.  
229 00:12:01.720 --> 00:12:06.720 So these are reflections of conditions.  
230 00:12:07.070 --> 00:12:11.550 And it's not just in the wintertime when  
people have issues,  
231 00:12:11.550 --> 00:12:13.900 it's also in the summertime.  
232 00:12:13.900 --> 00:12:17.170 So that the AC penetration rate,  
233 00:12:17.170 --> 00:12:20.740 meaning how many air conditioners exists,  
234 00:12:20.740 --> 00:12:22.520 is lowest in the Bronx.  
235 00:12:22.520 --> 00:12:27.520 So you have almost a third or so of residents  
in the Bronx  
236 00:12:28.430 --> 00:12:32.003 that do not have access to an air conditioner.  
237 00:12:34.410 --> 00:12:37.593 What I've learned in the time since,  
238 00:12:38.720 --> 00:12:41.720 kind of thinking about these pillars of housing,  
239 00:12:41.720 --> 00:12:43.490 which I just described,

240 00:12:43.490 --> 00:12:47.973 is that home-based infrastructure actually is public health.

241 00:12:49.060 --> 00:12:52.930 And my insights on this issue,

242 00:12:52.930 --> 00:12:57.910 in some ways stem from the book called "Heat Wave"

243 00:12:57.910 --> 00:12:59.680 by Eric Klinenberg.

244 00:12:59.680 --> 00:13:00.730 So in that book,

245 00:13:00.730 --> 00:13:03.840 obviously, he talks about social resilience,

246 00:13:03.840 --> 00:13:06.640 and the fact that African-Americans

247 00:13:06.640 --> 00:13:11.050 were disproportionately impacted by hospitalizations,

248 00:13:11.050 --> 00:13:15.080 and really by deaths during the 1995 Heat-wave.

249 00:13:15.080 --> 00:13:16.920 He's a sociologist.

250 00:13:16.920 --> 00:13:21.850 And that insight was incredibly important for thinking about

251 00:13:21.850 --> 00:13:25.090 who would be on the front lines of climate change.

252 00:13:25.090 --> 00:13:27.150 And in some ways,

253 00:13:27.150 --> 00:13:31.580 he was really kind of early in his observations

254 00:13:31.580 --> 00:13:34.280 about this changing climate

255 00:13:34.280 --> 00:13:36.800 and who would be most vulnerable.

256 00:13:36.800 --> 00:13:39.370 And he talked a lot about the fact

257 00:13:39.370 --> 00:13:42.340 that people were dying alone in their homes.

258 00:13:42.340 --> 00:13:44.640 I'm a sociologist too.

259 00:13:44.640 --> 00:13:49.490 But I actually think about the kind of technical aspects

260 00:13:50.710 --> 00:13:55.300 that contributed to the disproportionate deaths

261 00:13:55.300 --> 00:13:59.130 among African-Americans in Chicago.

262 00:13:59.130 --> 00:14:00.960 And basically, the idea is that,

263 00:14:00.960 --> 00:14:02.930 you know, there were many closed windows,

264 00:14:02.930 --> 00:14:04.830 there were some fans,

265 00:14:04.830 --> 00:14:07.720 but there were also very few air conditioners.  
266 00:14:07.720 --> 00:14:09.530 And mind you, this is in 1995.  
267 00:14:09.530 --> 00:14:11.060 So it's not surprising  
268 00:14:11.060 --> 00:14:14.003 that the kind of energy infrastructure might  
have been,  
269 00:14:16.530 --> 00:14:19.390 kind of, that ACs might have been less avail-  
able.  
270 00:14:19.390 --> 00:14:22.470 But I just showed you more recent data from  
New York City  
271 00:14:22.470 --> 00:14:24.330 that shows that in poor neighborhoods  
272 00:14:24.330 --> 00:14:26.840 people are less likely to have air conditioning.  
273 00:14:26.840 --> 00:14:29.500 And public housing in New York City,  
274 00:14:29.500 --> 00:14:31.440 it was up until very recently,  
275 00:14:31.440 --> 00:14:33.460 only one in two households  
276 00:14:33.460 --> 00:14:35.920 that lived in public housing actually had access  
277 00:14:35.920 --> 00:14:37.760 to an air conditioner.  
278 00:14:37.760 --> 00:14:40.500 I was listening to NPR one day,  
279 00:14:40.500 --> 00:14:44.410 and I heard a story about Maricopa County.  
280 00:14:44.410 --> 00:14:45.800 Maricopa County had been  
281 00:14:45.800 --> 00:14:47.890 one of the first Departments of Health  
282 00:14:47.890 --> 00:14:50.840 to actually measure excess heat deaths.  
283 00:14:50.840 --> 00:14:53.480 And that's not surprising because this is in  
Arizona  
284 00:14:53.480 --> 00:14:57.120 where you know, I remember going in an Uber,  
285 00:14:57.120 --> 00:15:00.870 and the Uber driver said we have three sea-  
sons;  
286 00:15:00.870 --> 00:15:03.660 pre-infernal, inferno and post-infernal.  
287 00:15:03.660 --> 00:15:05.600 And so really important  
288 00:15:05.600 --> 00:15:08.850 for Maricopa County Department of Health  
289 00:15:08.850 --> 00:15:10.740 and others on the ground  
290 00:15:10.740 --> 00:15:15.180 to understand not only the prevalence of excess  
heat deaths,  
291 00:15:15.180 --> 00:15:17.080 but also what was at the root.

292 00:15:17.080 --> 00:15:19.220 And it was their study about what was at the root  
293 00:15:19.220 --> 00:15:20.740 that to me was really interesting  
294 00:15:20.740 --> 00:15:23.770 and actually has spurred a further collaboration.  
295 00:15:23.770 --> 00:15:26.090 But I just want to walk us through.  
296 00:15:26.090 --> 00:15:30.863 So of the people that basically died in their homes,  
297 00:15:32.550 --> 00:15:35.480 almost all of them basically died  
298 00:15:35.480 --> 00:15:39.190 in a non-cooled indoor environment.  
299 00:15:39.190 --> 00:15:40.843 For some of them,  
300 00:15:41.727 --> 00:15:43.930 you know, kind of a minority of them,  
301 00:15:43.930 --> 00:15:45.980 they had no AC at all.  
302 00:15:45.980 --> 00:15:50.380 For others, so 92% actually had an AC,  
303 00:15:50.380 --> 00:15:53.470 but the majority of the people that died at home  
304 00:15:53.470 --> 00:15:55.530 had no working AC.  
305 00:15:55.530 --> 00:15:59.780 They also had the AC in the off position,  
306 00:15:59.780 --> 00:16:02.730 or their utilities were shut off.  
307 00:16:02.730 --> 00:16:06.180 So this really goes to show that there's something  
308 00:16:06.180 --> 00:16:08.680 other than the fact that they live alone,  
309 00:16:08.680 --> 00:16:12.323 kind of contributing to their demise, essentially.  
310 00:16:13.370 --> 00:16:14.400 And one of the things  
311 00:16:14.400 --> 00:16:16.850 that I've been doing over the course of my career,  
312 00:16:16.850 --> 00:16:18.880 especially more recently,  
313 00:16:18.880 --> 00:16:21.440 is engaging in the public debate  
314 00:16:21.440 --> 00:16:24.963 around how public health essentially,  
315 00:16:26.180 --> 00:16:28.520 is linked to public policy.  
316 00:16:28.520 --> 00:16:29.353 And of course,  
317 00:16:29.353 --> 00:16:33.637 my kind of public policy of reference primarily

318 00:16:36.060 --> 00:16:40.010 is the Low Income Home Energy Assistance Program, LIHEAP.

319 00:16:40.010 --> 00:16:41.940 And just this past summer,

320 00:16:41.940 --> 00:16:44.633 I wrote along with a former student of mine,

321 00:16:46.495 --> 00:16:49.813 Sonal Jessel, who's now working at WE ACT,

322 00:16:50.894 --> 00:16:53.900 a piece in City & State in New York,

323 00:16:53.900 --> 00:16:56.470 which is basically read by policymakers

324 00:16:56.470 --> 00:16:59.160 about the need to kind of revisit LIHEAP

325 00:17:00.000 --> 00:17:02.550 in some ways, because in many states,

326 00:17:02.550 --> 00:17:04.303 but especially in New York,

327 00:17:07.240 --> 00:17:11.120 only AC distribution is available.

328 00:17:11.120 --> 00:17:14.980 So actually acquiring an air conditioning unit.

329 00:17:14.980 --> 00:17:18.190 But the cost of running the electricity

330 00:17:18.190 --> 00:17:22.240 isn't covered by Low Income Home Energy Assistance Program,

331 00:17:22.240 --> 00:17:25.023 because it's primarily a heating subsidy.

332 00:17:29.623 --> 00:17:31.270 So basically, we're asking,

333 00:17:31.270 --> 00:17:32.830 you know, kind of policymakers

334 00:17:32.830 --> 00:17:37.020 to revisit what the kind of stipulations

335 00:17:37.020 --> 00:17:39.970 for receipt of LIHEAP might look like for households.

336 00:17:39.970 --> 00:17:43.440 In fact, to kind of preserve health,

337 00:17:43.440 --> 00:17:45.423 but also to prevent deaths.

338 00:17:46.410 --> 00:17:48.203 And then more recently,

339 00:17:49.370 --> 00:17:52.980 I wrote a piece in USA Today,

340 00:17:52.980 --> 00:17:57.980 that talks on the one hand about heating, home heating.

341 00:17:58.270 --> 00:17:59.930 And the fact that,

342 00:17:59.930 --> 00:18:04.330 the cost of heating will actually increase significantly

343 00:18:04.330 --> 00:18:08.030 this heating season, as in like right now.

344 00:18:08.030 --> 00:18:10.720 And that that will force people

345 00:18:10.720 --> 00:18:15.720 to make what to me are really inhumane,  
346 00:18:15.760 --> 00:18:20.310 and unnecessary trade-offs between other basic  
needs,  
347 00:18:20.310 --> 00:18:23.923 like food, and or medicine.  
348 00:18:25.030 --> 00:18:29.033 It obviously has implications for not just thermal comfort,  
349 00:18:30.010 --> 00:18:35.010 but like I said, a healthy and safe indoor temperature.  
350 00:18:36.880 --> 00:18:40.710 Interestingly enough, the heating costs  
351 00:18:40.710 --> 00:18:45.070 that are increasing the most are actually also fossil fuels.  
352 00:18:45.070 --> 00:18:49.360 So it's natural gas, heating oil, propane.  
353 00:18:49.360 --> 00:18:53.270 And those are also the kind of heating sources  
354 00:18:53.270 --> 00:18:57.590 used primarily by lower income groups.  
355 00:18:57.590 --> 00:18:59.090 You know, there's obviously the connection  
356 00:18:59.090 --> 00:19:01.920 to energy efficiency, to health,  
357 00:19:01.920 --> 00:19:03.760 not just for the elderly,  
358 00:19:03.760 --> 00:19:06.100 but really across the life force,  
359 00:19:06.100 --> 00:19:09.450 including the very young and prenatally.  
360 00:19:09.450 --> 00:19:11.300 This obviously, I have driven,  
361 00:19:11.300 --> 00:19:14.410 I think the point that this is a matter of survival,  
362 00:19:14.410 --> 00:19:17.460 but also a matter of environmental justice.  
363 00:19:17.460 --> 00:19:19.000 And so with that,  
364 00:19:19.000 --> 00:19:20.180 I'd like to get into  
365 00:19:20.180 --> 00:19:22.330 well, what is energy insecurity?  
366 00:19:22.330 --> 00:19:23.643 Because at some point,  
367 00:19:24.560 --> 00:19:26.540 you know, all of this backdrop  
368 00:19:27.420 --> 00:19:29.700 is important information to know,  
369 00:19:29.700 --> 00:19:32.930 but ultimately, kind of naming the phenomenon  
370 00:19:32.930 --> 00:19:35.040 was pretty critical.  
371 00:19:35.040 --> 00:19:37.210 And I can't take credit for coining the term

372 00:19:37.210 --> 00:19:39.140 but I certainly (mumbles)

373 00:19:39.140 --> 00:19:40.410 You know, I'm the scholar that kind of operationalized

374 00:19:44.089 --> 00:19:46.490 the concept of energy insecurity

375 00:19:46.490 --> 00:19:49.020 and has basically defined

376 00:19:49.020 --> 00:19:54.020 like what the dimensions of this phenomenon happen to be.

377 00:19:56.050 --> 00:19:58.520 And it sits as a,

378 00:19:58.520 --> 00:20:01.120 again, I'm not sure why this is kind of going back on me.

379 00:20:01.120 --> 00:20:06.120 But anyway, it sits as a kind of a basic necessity of life.

380 00:20:06.380 --> 00:20:10.120 So Maslow's Hierarchy of Needs would place household energy

381 00:20:10.120 --> 00:20:13.240 really as a kind of a base

382 00:20:13.240 --> 00:20:16.440 in the pyramid of physiological needs,

383 00:20:16.440 --> 00:20:20.100 that are warmth or cooling depending on the season.

384 00:20:20.100 --> 00:20:22.560 The World Health Organization a while ago talked

385 00:20:22.560 --> 00:20:26.780 about energy being essential to meeting basic needs,

386 00:20:26.780 --> 00:20:28.620 a prerequisite for health,

387 00:20:28.620 --> 00:20:30.860 but something also that's ignored.

388 00:20:30.860 --> 00:20:35.860 And I'm really happy to say that that's no longer the case.

389 00:20:36.030 --> 00:20:39.430 I don't think that people are ignoring the issue as much.

390 00:20:39.430 --> 00:20:41.060 They may or may not be kind of paying

391 00:20:41.060 --> 00:20:42.920 as much attention as it merits.

392 00:20:42.920 --> 00:20:45.730 But it certainly has received more attention

393 00:20:45.730 --> 00:20:46.680 in the decade or so,

394 00:20:46.680 --> 00:20:48.840 since I've been working in this space.

395 00:20:48.840 --> 00:20:49.870 One of the pieces

396 00:20:49.870 --> 00:20:53.200 that I think is really kind of important to recognize

397 00:20:53.200 --> 00:20:57.000 is that, you know, well, let's just define this.

398 00:20:57.000 --> 00:20:57.950 So it's an inability

399 00:20:57.950 --> 00:21:01.250 to adequately meet basic household energy needs.

400 00:21:01.250 --> 00:21:02.850 It has three dimensions.

401 00:21:02.850 --> 00:21:06.020 So there's an economic dimension which,

402 00:21:06.020 --> 00:21:08.300 like rent burden is really about

403 00:21:08.300 --> 00:21:12.450 how much of household income is distributed

404 00:21:12.450 --> 00:21:15.520 or allocated to energy expenses.

405 00:21:15.520 --> 00:21:17.050 There's a physical component,

406 00:21:17.050 --> 00:21:20.420 which is about the inefficiencies

407 00:21:22.620 --> 00:21:24.930 in the actual, like performance,

408 00:21:24.930 --> 00:21:29.000 the energy performance of buildings, or homes,

409 00:21:29.000 --> 00:21:31.930 as well as the kind of availability

410 00:21:31.930 --> 00:21:34.540 and performance of appliances

411 00:21:34.540 --> 00:21:36.620 and other energy infrastructure.

412 00:21:36.620 --> 00:21:39.492 Plus the fact that people are doing things

413 00:21:39.492 --> 00:21:42.550 and they're managing as best they can

414 00:21:42.550 --> 00:21:44.750 under different circumstances.

415 00:21:44.750 --> 00:21:49.130 Another kind of way in which I've understood this phenomenon

416 00:21:49.130 --> 00:21:52.820 is that there are acute forms of energy insecurity.

417 00:21:52.820 --> 00:21:56.980 So power outages are really kind of a prime example, right?

418 00:21:56.980 --> 00:22:00.410 So you know, power outages as a result of the wildfires

419 00:22:00.410 --> 00:22:02.920 in California, for instance,

420 00:22:02.920 --> 00:22:06.103 or the hurricane in Puerto Rico.

421 00:22:07.490 --> 00:22:08.903 Also shut offs.



422 00:22:09.770 --> 00:22:12.770 When people are unable to pay their utility bills

423 00:22:12.770 --> 00:22:14.460 and they're shut off,

424 00:22:14.460 --> 00:22:18.050 that kind of represents an acute form of energy insecurity.

425 00:22:18.050 --> 00:22:20.130 Fuel shortages, in this case,

426 00:22:20.130 --> 00:22:24.530 you know, kind of price increases that are pretty shocking,

427 00:22:24.530 --> 00:22:28.390 might represent an acute form of energy insecurity.

428 00:22:28.390 --> 00:22:31.320 And one of the things that I kind of like to say,

429 00:22:31.320 --> 00:22:34.280 as a distinguishing factor between acute and chronic,

430 00:22:34.280 --> 00:22:38.880 is that acute can actually have a wider spread impact

431 00:22:38.880 --> 00:22:41.980 across socio-economic position.

432 00:22:41.980 --> 00:22:44.910 Whereas chronic energy insecurity has a lot more

433 00:22:44.910 --> 00:22:48.260 to do with people that might face these challenges

434 00:22:48.260 --> 00:22:50.470 as a result of being poor,

435 00:22:50.470 --> 00:22:53.360 or as a result of living in a certain housing type.

436 00:22:53.360 --> 00:22:56.640 For instance, a mobile home or,

437 00:22:56.640 --> 00:23:01.480 you know, sometimes in public or subsidized housing

438 00:23:01.480 --> 00:23:04.810 that hasn't necessarily been kind of upgraded

439 00:23:04.810 --> 00:23:07.293 to meet today's energy performance standards.

440 00:23:08.510 --> 00:23:11.730 You know, kind of situating those three dimensions

441 00:23:11.730 --> 00:23:16.650 so that the financial or economic components,

442 00:23:16.650 --> 00:23:19.163 the housing conditions component,

443 00:23:20.010 --> 00:23:22.270 and the behavioral piece,

444 00:23:22.270 --> 00:23:24.420 it's also really important to be thinking

445 00:23:24.420 --> 00:23:26.560 about kind of energy access,  
 446 00:23:26.560 --> 00:23:31.020 like the acute kind of form of energy insecurity,  
 447 00:23:31.020 --> 00:23:36.020 climate threats, including extreme weather,  
 cold heat, etc,  
 448 00:23:37.790 --> 00:23:39.470 and the just transition.  
 449 00:23:39.470 --> 00:23:41.350 So there's a lot of discussion.  
 450 00:23:41.350 --> 00:23:44.040 In fact, you know, COP26 is happening right  
 now.  
 451 00:23:44.040 --> 00:23:47.800 People are in Glasgow at the moment  
 452 00:23:47.800 --> 00:23:51.300 discussing what happens in terms of clean  
 heat,  
 453 00:23:51.300 --> 00:23:53.370 or clean energy transitions,  
 454 00:23:53.370 --> 00:23:56.020 and how do we reduce our carbon footprint.  
 455 00:23:56.020 --> 00:23:59.140 And a big part of that is also of importance,  
 456 00:23:59.140 --> 00:24:00.140 particularly for people  
 457 00:24:00.140 --> 00:24:04.020 who are relying on fossil fuels at the moment  
 458 00:24:04.020 --> 00:24:07.830 and are probably least able to make the tran-  
 sition  
 459 00:24:08.910 --> 00:24:10.383 on their own.  
 460 00:24:10.383 --> 00:24:12.780 So that's the kind of broader context  
 461 00:24:12.780 --> 00:24:14.863 I wish to understand these dynamics.  
 462 00:24:16.400 --> 00:24:18.870 So this is now dated.  
 463 00:24:18.870 --> 00:24:20.490 And I want to say that,  
 464 00:24:20.490 --> 00:24:21.730 there are going to be  
 465 00:24:21.730 --> 00:24:22.563 well, first of all,  
 466 00:24:22.563 --> 00:24:25.642 there's a new residential energy consumption  
 survey  
 467 00:24:25.642 --> 00:24:28.680 that was distributed,  
 468 00:24:28.680 --> 00:24:31.677 and the data was collected in 2019 2020.  
 469 00:24:31.677 --> 00:24:35.560 And I was really happy to support that effort  
 470 00:24:35.560 --> 00:24:37.430 as an advisor on some of the questions  
 471 00:24:37.430 --> 00:24:38.850 around energy insecurity.

472 00:24:38.850 --> 00:24:42.290 But back in 2018,  
473 00:24:42.290 --> 00:24:46.300 the Energy Information Administration re-  
leased a report  
474 00:24:46.300 --> 00:24:49.460 based on their 2015 RECS data that showed  
475 00:24:49.460 --> 00:24:51.580 that one in three households in The United  
States  
476 00:24:51.580 --> 00:24:53.660 are actually energy insecure.  
477 00:24:53.660 --> 00:24:55.690 And by their kind of definition,  
478 00:24:55.690 --> 00:24:57.580 at that point, they were thinking about it  
479 00:24:57.580 --> 00:24:59.290 in terms of those trade-offs  
480 00:24:59.290 --> 00:25:00.660 that I've already described,  
481 00:25:00.660 --> 00:25:01.770 the heat or eat.  
482 00:25:01.770 --> 00:25:03.580 Like the, you know,  
483 00:25:03.580 --> 00:25:05.980 kind of forgoing medicine,  
484 00:25:05.980 --> 00:25:09.210 sometimes transportation, other things, other  
basic needs  
485 00:25:09.210 --> 00:25:14.210 in order to meet their energy kind of cost  
obligations,  
486 00:25:15.140 --> 00:25:16.770 receiving a disconnection notice  
487 00:25:16.770 --> 00:25:18.990 or keeping the home at an unhealthy temper-  
ature.  
488 00:25:18.990 --> 00:25:20.730 So, for some households,  
489 00:25:20.730 --> 00:25:22.680 this is happening chronically right?  
490 00:25:22.680 --> 00:25:25.040 The dark blue really kind of suggests  
491 00:25:25.040 --> 00:25:27.810 that this is happening almost every month.  
492 00:25:27.810 --> 00:25:29.920 And then the lighter blue is conditional.  
493 00:25:29.920 --> 00:25:33.423 So it's happening kind of some months out of  
the year.  
494 00:25:34.970 --> 00:25:38.260 But we also know that energy insecurity is  
patterned  
495 00:25:38.260 --> 00:25:41.280 by social vulnerabilities.  
496 00:25:41.280 --> 00:25:43.520 So that low-income households are more likely  
497 00:25:43.520 --> 00:25:45.040 to be energy insecure.

498 00:25:45.040 --> 00:25:46.940 Households with children,  
499 00:25:46.940 --> 00:25:49.080 people living in older homes,  
500 00:25:49.080 --> 00:25:53.400 African-American and Latinx populations are  
much more likely  
501 00:25:53.400 --> 00:25:55.140 to be energy insecure.  
502 00:25:55.140 --> 00:25:56.740 I'm going to put a pin on the elderly  
503 00:25:56.740 --> 00:25:58.870 because I think it's something that we'll come  
back to.  
504 00:25:58.870 --> 00:26:00.230 But based on this information,  
505 00:26:00.230 --> 00:26:02.580 you wouldn't think that the elderly are energy  
insecure,  
506 00:26:02.580 --> 00:26:03.413 but they are.  
507 00:26:04.340 --> 00:26:06.420 We actually use that same data  
508 00:26:06.420 --> 00:26:09.110 to measure the national prevalence rate  
509 00:26:09.110 --> 00:26:11.120 of disconnection notices,  
510 00:26:11.120 --> 00:26:12.760 and disconnections.  
511 00:26:12.760 --> 00:26:15.900 And what we found is that 3% of the popula-  
tion  
512 00:26:15.900 --> 00:26:19.640 in The United States has actually received a  
disconnection.  
513 00:26:19.640 --> 00:26:24.270 And just like the other forms of energy inse-  
curity  
514 00:26:24.270 --> 00:26:26.320 that were highlighted before,  
515 00:26:26.320 --> 00:26:27.950 this is also patterned.  
516 00:26:27.950 --> 00:26:32.600 So that low-income households, Black and  
Latinx households,  
517 00:26:32.600 --> 00:26:34.990 but especially Black households.  
518 00:26:34.990 --> 00:26:37.430 Households with a head of household  
519 00:26:37.430 --> 00:26:42.050 that has a lower educational attainment rate,  
520 00:26:42.050 --> 00:26:43.883 households with children,  
521 00:26:44.860 --> 00:26:47.630 and also just adult households.  
522 00:26:47.630 --> 00:26:49.870 So not the elderly.  
523 00:26:49.870 --> 00:26:52.300 People living in mobile homes,

524 00:26:52.300 --> 00:26:54.640 and also single detached homes,  
 525 00:26:54.640 --> 00:26:57.720 people reporting inadequate insulation,  
 526 00:26:57.720 --> 00:27:00.460 and living in older homes, renters,  
 527 00:27:00.460 --> 00:27:02.600 people living in rural areas,  
 528 00:27:02.600 --> 00:27:04.880 and those living in the South and the North-  
 east  
 529 00:27:04.880 --> 00:27:06.320 were much more likely  
 530 00:27:06.320 --> 00:27:09.383 to have actually received a disconnection.  
 531 00:27:10.650 --> 00:27:12.000 Now, what do people do?  
 532 00:27:12.000 --> 00:27:14.910 So we talked a lot about coping strategies.  
 533 00:27:14.910 --> 00:27:19.200 And on the one hand there's the trade-off  
 strategy,  
 534 00:27:19.200 --> 00:27:22.380 there's also the strategy around thermal dis-  
 comfort,  
 535 00:27:22.380 --> 00:27:25.710 and then there's a strategy around energy  
 assistance.  
 536 00:27:25.710 --> 00:27:27.140 And what we found is that,  
 537 00:27:27.140 --> 00:27:29.640 for households that receive no notice,  
 538 00:27:29.640 --> 00:27:32.950 most of them aren't doing anything really to  
 cope.  
 539 00:27:32.950 --> 00:27:34.170 And that makes a lot of sense,  
 540 00:27:34.170 --> 00:27:37.700 because they may not see the threat as immi-  
 nent.  
 541 00:27:37.700 --> 00:27:41.380 Now, once they've received the disconnection  
 notice,  
 542 00:27:41.380 --> 00:27:45.810 many more families are actually turning to  
 trade-offs,  
 543 00:27:46.920 --> 00:27:49.193 like foregoing their basic necessities,  
 544 00:27:50.330 --> 00:27:52.490 or doing that in combination  
 545 00:27:52.490 --> 00:27:55.310 with keeping the home at an unhealthy tem-  
 perature,  
 546 00:27:55.310 --> 00:28:00.310 or seeking and receiving energy assistance.  
 547 00:28:00.670 --> 00:28:03.690 When they've actually experienced a discon-  
 nection,

548 00:28:03.690 --> 00:28:07.970 many more of them are turning to a lot of strategies

549 00:28:09.680 --> 00:28:11.283 to get by, essentially.

550 00:28:12.280 --> 00:28:16.180 And the kind of prevalence of these coping strategies

551 00:28:16.180 --> 00:28:18.310 just increases substantially.

552 00:28:18.310 --> 00:28:19.890 So that more people are keeping their homes

553 00:28:19.890 --> 00:28:22.320 at an unhealthy temperature foregoing,

554 00:28:22.320 --> 00:28:25.170 and also receiving assistance,

555 00:28:25.170 --> 00:28:27.220 but not as much as you would imagine,

556 00:28:27.220 --> 00:28:31.393 given the kind of crisis at hand with a disconnection.

557 00:28:33.300 --> 00:28:38.300 So obviously, we're kind of a public health crowd

558 00:28:38.570 --> 00:28:41.110 and we care about what this actually means

559 00:28:43.914 --> 00:28:45.960 in terms of health outcomes.

560 00:28:45.960 --> 00:28:49.210 So earlier, I shared a kind of a pathway or heuristic

561 00:28:49.210 --> 00:28:51.700 around the links between the different

562 00:28:51.700 --> 00:28:54.380 kind of components of housing

563 00:28:54.380 --> 00:28:58.030 and various health outcomes.

564 00:28:58.030 --> 00:29:02.570 And actually the same is true around energy.

565 00:29:02.570 --> 00:29:04.270 But energy is kind of situated.

566 00:29:04.270 --> 00:29:05.780 The three dimensions of energy

567 00:29:05.780 --> 00:29:09.410 are kind of situated within those larger processes

568 00:29:09.410 --> 00:29:14.020 of kind of housing and racial residential segregation,

569 00:29:14.020 --> 00:29:16.090 and some of the other kind of factors

570 00:29:16.090 --> 00:29:18.690 that are happening at the neighborhood level,

571 00:29:18.690 --> 00:29:21.250 but also that kind of reflects

572 00:29:21.250 --> 00:29:23.920 the kind of discriminatory policies and practices

573 00:29:23.920 --> 00:29:25.670 that I mentioned before.  
 574 00:29:25.670 --> 00:29:27.300 And then in terms of outcomes,  
 575 00:29:27.300 --> 00:29:29.080 there's a whole host of them,  
 576 00:29:29.080 --> 00:29:33.170 some of them like really representing direct  
 pathways  
 577 00:29:33.170 --> 00:29:35.493 to adverse health outcomes,  
 578 00:29:36.400 --> 00:29:39.510 as respiratory health, for instance, mental  
 health.  
 579 00:29:39.510 --> 00:29:42.630 But also the ones that are kind of in route  
 580 00:29:42.630 --> 00:29:43.790 to these health outcomes,  
 581 00:29:43.790 --> 00:29:47.310 like environmental consequences and social  
 consequences  
 582 00:29:47.310 --> 00:29:49.590 that might impact ultimately,  
 583 00:29:49.590 --> 00:29:51.920 some of the physical and mental health con-  
 sequences  
 584 00:29:51.920 --> 00:29:54.290 that are kind of listed here.  
 585 00:29:54.290 --> 00:29:55.980 And we wanted to kind of understand this.  
 586 00:29:55.980 --> 00:29:57.660 All of these insights really came  
 587 00:29:57.660 --> 00:30:00.410 from doing qualitative work,  
 588 00:30:00.410 --> 00:30:02.080 asking people about their lives  
 589 00:30:02.080 --> 00:30:04.330 and about their circumstances.  
 590 00:30:04.330 --> 00:30:08.690 And ultimately, we did a study in Washington  
 Heights,  
 591 00:30:08.690 --> 00:30:11.120 which is across the bridge from the Bronx.  
 592 00:30:11.120 --> 00:30:12.420 It's in upper Manhattan.  
 593 00:30:12.420 --> 00:30:16.390 It's also where the School of Public Health at  
 Columbia is.  
 594 00:30:16.390 --> 00:30:19.010 And the local hospital  
 595 00:30:19.010 --> 00:30:24.010 as a result of changes in Medicaid,  
 596 00:30:26.120 --> 00:30:28.870 and the need to kind of reduce acute care  
 visits,  
 597 00:30:28.870 --> 00:30:31.690 and better understand and serve the commu-  
 nity

598 00:30:31.690 --> 00:30:33.910 asked us in the school of public health,  
 599 00:30:33.910 --> 00:30:35.810 to kind of better understand different pieces.  
 600 00:30:35.810 --> 00:30:37.440 And because I was on the team,  
 601 00:30:37.440 --> 00:30:39.810 I added some questions about energy insecurity.  
 602 00:30:39.810 --> 00:30:42.000 These are the questions that were asked,  
 603 00:30:42.000 --> 00:30:47.000 and it's based on Cook et al 2008 paper  
 604 00:30:49.040 --> 00:30:51.020 where they kind of have a brief indicator  
 605 00:30:51.020 --> 00:30:52.870 of energy insecurity,  
 606 00:30:52.870 --> 00:30:57.040 based on having received a letter using the  
 stove to heat,  
 607 00:30:57.040 --> 00:30:58.360 not having heat,  
 608 00:30:58.360 --> 00:31:01.760 and also having received a shutoff.  
 609 00:31:01.760 --> 00:31:03.360 And what we found in that study is that,  
 610 00:31:03.360 --> 00:31:06.510 27% of residents in Washington Heights  
 611 00:31:06.510 --> 00:31:08.200 were considered moderately  
 612 00:31:08.200 --> 00:31:12.160 or severely energy insecure about half and  
 half  
 613 00:31:12.160 --> 00:31:13.970 as seen here.  
 614 00:31:13.970 --> 00:31:16.810 And you know, the social patterning exists.  
 615 00:31:16.810 --> 00:31:20.200 We know that households with children  
 616 00:31:20.200 --> 00:31:23.750 of Black and Latinx in low-income households  
 617 00:31:23.750 --> 00:31:26.750 were all more likely to be energy insecure,  
 618 00:31:26.750 --> 00:31:29.220 moderately or severely so.  
 619 00:31:29.220 --> 00:31:31.490 We also thought it was really interesting  
 620 00:31:31.490 --> 00:31:34.900 that one in two households that were energy  
 insecure  
 621 00:31:34.900 --> 00:31:37.340 were also food insecure.  
 622 00:31:37.340 --> 00:31:40.550 But that those that received food-related aid,  
 623 00:31:40.550 --> 00:31:42.910 so those that received  
 624 00:31:42.910 --> 00:31:45.700 Supplemental Nutritional Assistance Program  
 benefits, SNAP,



625 00:31:45.700 --> 00:31:48.760 and or Women, Infants and Children, WIC  
benefits

626 00:31:48.760 --> 00:31:50.963 were much more likely to be secure.

627 00:31:51.910 --> 00:31:56.910 Some earlier work had actually shown by Cook  
et al

628 00:31:58.730 --> 00:32:01.790 at BMC, at Boston Medical Center,

629 00:32:01.790 --> 00:32:02.720 that the receipt

630 00:32:02.720 --> 00:32:06.130 of Low Income Home Energy Assistance Pro-  
gram, LIHEAP

631 00:32:06.130 --> 00:32:09.210 actually created opportunities,

632 00:32:09.210 --> 00:32:13.060 or was associated with more food security

633 00:32:13.060 --> 00:32:16.170 as well as kind of developmental markers for  
children

634 00:32:17.615 --> 00:32:20.370 in the affirmative.

635 00:32:20.370 --> 00:32:21.840 And that was hopeful

636 00:32:21.840 --> 00:32:26.840 because these are corresponding uncompli-  
mentary findings.

637 00:32:26.860 --> 00:32:28.300 Essentially, we also found

638 00:32:28.300 --> 00:32:31.290 that energy insecurity was associated

639 00:32:31.290 --> 00:32:34.470 with respiratory health, asthma and pneumo-  
nia,

640 00:32:34.470 --> 00:32:39.000 as well as self reported anxiety, depression,

641 00:32:39.000 --> 00:32:42.210 and diagnose depressive disorder,

642 00:32:42.210 --> 00:32:43.800 as well as sleep quality.

643 00:32:43.800 --> 00:32:46.480 And all of those things kind of make sense,

644 00:32:46.480 --> 00:32:49.550 also makes sense that it wasn't associated  
with diabetes,

645 00:32:49.550 --> 00:32:52.850 for instance, hypertension, or accidental falls.

646 00:32:52.850 --> 00:32:54.540 Although I would say,

647 00:32:54.540 --> 00:32:58.500 chronic conditions, and energy insecurity

648 00:32:58.500 --> 00:33:01.580 are probably adversely linked.

649 00:33:01.580 --> 00:33:03.810 So these days,

650 00:33:03.810 --> 00:33:05.390 I'm writing a book.

651 00:33:05.390 --> 00:33:06.367 And I'm writing a book called,

652 00:33:06.367 --> 00:33:09.550 "Powerless: The People's Struggle for Energy in America."

653 00:33:09.550 --> 00:33:12.970 And my goal in this book is to humanize energy,

654 00:33:12.970 --> 00:33:13.803 in some ways,

655 00:33:13.803 --> 00:33:16.500 because we haven't really thought enough about this issue

656 00:33:16.500 --> 00:33:18.000 and we certainly haven't really thought

657 00:33:18.000 --> 00:33:20.800 about how energy is necessarily

658 00:33:20.800 --> 00:33:23.780 like affecting our day to day lives.

659 00:33:23.780 --> 00:33:27.080 And I'm going to test out a few of my stories.

660 00:33:27.080 --> 00:33:28.630 This is a story about Edith.

661 00:33:28.630 --> 00:33:29.463 This is the chapter,

662 00:33:29.463 --> 00:33:30.920 my second chapter in the book

663 00:33:30.920 --> 00:33:33.670 and the one that I'm currently working on.

664 00:33:33.670 --> 00:33:38.670 And it's about a woman who basically dedicated herself

665 00:33:38.870 --> 00:33:41.580 to taking care of her dying father,

666 00:33:41.580 --> 00:33:46.580 in a house in Detroit that they bought, and lived in,

667 00:33:47.950 --> 00:33:49.600 you know, basically,

668 00:33:49.600 --> 00:33:53.570 during the kind of great migration of African-Americans

669 00:33:53.570 --> 00:33:57.240 from the South to Northern cities for opportunities,

670 00:33:57.240 --> 00:33:58.790 for economic opportunities,

671 00:33:58.790 --> 00:34:00.830 and for upward social mobility.

672 00:34:00.830 --> 00:34:05.050 And this house kind of represented so much of that.

673 00:34:05.050 --> 00:34:07.913 It also represented the decline of the city.

674 00:34:08.810 --> 00:34:13.113 In fact, not only did her father die in this house,

675 00:34:15.130 --> 00:34:18.313 this house also was dying by itself.

676 00:34:19.290 --> 00:34:21.100 And its major organs,  
677 00:34:21.100 --> 00:34:26.100 which I consider to be the heating infrastruc-  
ture  
678 00:34:26.670 --> 00:34:30.190 and the other kind of energy infrastructure  
679 00:34:30.190 --> 00:34:34.540 were the first signs of its demise.  
680 00:34:34.540 --> 00:34:37.710 And so, Edith, basically,  
681 00:34:37.710 --> 00:34:39.770 at some point the boiler gave up.  
682 00:34:39.770 --> 00:34:41.563 It was decades old.  
683 00:34:43.170 --> 00:34:48.170 She had lights that were basically powered by  
natural gas.  
684 00:34:48.720 --> 00:34:51.810 If you can imagine a time when the lights in  
our homes  
685 00:34:51.810 --> 00:34:53.743 were not powered by electricity.  
686 00:34:55.062 --> 00:34:56.220 Her son became (indistinct)  
687 00:34:56.220 --> 00:35:00.770 You know, like he started to kind of work on  
addressing  
688 00:35:00.770 --> 00:35:03.110 the light that had gone out,  
689 00:35:03.110 --> 00:35:07.380 not realizing that it was powered by natural  
gas.  
690 00:35:07.380 --> 00:35:10.773 And eventually, that caused a gas leak.  
691 00:35:11.810 --> 00:35:14.270 She called the local energy provider.  
692 00:35:14.270 --> 00:35:16.190 The energy provider,  
693 00:35:16.190 --> 00:35:18.610 this was during the winter time,  
694 00:35:18.610 --> 00:35:22.690 basically, her heat had already stopped work-  
ing  
695 00:35:22.690 --> 00:35:27.690 because the boiler, the furnace gave way.  
696 00:35:28.080 --> 00:35:30.620 When the representative  
697 00:35:30.620 --> 00:35:33.110 from the local utility company came by  
698 00:35:33.110 --> 00:35:35.360 he's like, "listen, I can't do much for you,  
699 00:35:35.360 --> 00:35:37.580 I actually have to turn off your gas."  
700 00:35:37.580 --> 00:35:39.840 So the gas stove that she was using for heat  
701 00:35:39.840 --> 00:35:41.680 was no longer an option.  
702 00:35:41.680 --> 00:35:42.513 And at that point,

703 00:35:42.513 --> 00:35:47.277 she was kind of resorting to using a kerosene heater,  
704 00:35:48.790 --> 00:35:53.790 which cost her about \$40 to fill every three or four days.  
705 00:35:54.660 --> 00:35:57.603 And she could only warm her actual bedroom.  
706 00:36:01.007 --> 00:36:02.440 In that process,  
707 00:36:02.440 --> 00:36:06.490 she was not only introducing the risk of fire, for instance,  
708 00:36:06.490 --> 00:36:07.960 but also freezing pipes.  
709 00:36:07.960 --> 00:36:08.793 So at some point,  
710 00:36:08.793 --> 00:36:12.000 she also didn't have running water.  
711 00:36:12.000 --> 00:36:14.210 And it was just a cascading effect,  
712 00:36:14.210 --> 00:36:19.120 a really bad kind of circumstances in this home.  
713 00:36:19.120 --> 00:36:22.000 And these pictures are actually from Zillow,  
714 00:36:22.000 --> 00:36:26.440 because she couldn't stay in that house anymore.  
715 00:36:26.440 --> 00:36:31.320 And it was actually the person that had recommended that she  
716 00:36:33.300 --> 00:36:35.580 well, the HVAC guy,  
717 00:36:35.580 --> 00:36:38.130 the heating, ventilation and air conditioning person  
718 00:36:38.130 --> 00:36:43.130 that came in to diagnose her dying furnace  
719 00:36:43.900 --> 00:36:46.770 told her like, maybe you should actually just move.  
720 00:36:46.770 --> 00:36:48.490 The people from her church  
721 00:36:49.960 --> 00:36:51.750 that had provided the kerosene heater  
722 00:36:51.750 --> 00:36:53.530 kind of suggested the same thing.  
723 00:36:53.530 --> 00:36:55.600 A month after I interviewed her,  
724 00:36:55.600 --> 00:36:58.370 she did put the house on the market.  
725 00:36:58.370 --> 00:37:01.430 Again, you know, those kind of four pillars of housing  
726 00:37:01.430 --> 00:37:03.880 with consistency being important,  
727 00:37:03.880 --> 00:37:06.140 she wasn't able to stay in a home

728 00:37:06.140 --> 00:37:11.140 that not only had kind of important memories for her family

729 00:37:11.600 --> 00:37:14.603 and represented so much about their upward mobility.

730 00:37:15.440 --> 00:37:19.120 But she had to basically kind of evacuate

731 00:37:19.120 --> 00:37:21.760 because the conditions were no longer tenable

732 00:37:21.760 --> 00:37:23.270 for her to live in.

733 00:37:23.270 --> 00:37:26.250 And this is not so unique,

734 00:37:26.250 --> 00:37:30.240 in the experience of many people living in different homes

735 00:37:30.240 --> 00:37:32.260 that are inherited,

736 00:37:32.260 --> 00:37:34.260 and that have conditions issues

737 00:37:34.260 --> 00:37:36.410 that make it kind of impossible

738 00:37:36.410 --> 00:37:38.190 for people to actually live in.

739 00:37:38.190 --> 00:37:41.070 I won't get into these stories with as much depth,

740 00:37:41.070 --> 00:37:42.980 but this is a woman that I met in Alabama,

741 00:37:42.980 --> 00:37:46.070 who wrote a letter to her utility provider,

742 00:37:46.070 --> 00:37:49.820 and is like, listen, I know I don't use as much energy

743 00:37:49.820 --> 00:37:54.820 but I've never seen bills that were this high.

744 00:37:56.490 --> 00:37:58.430 But the challenge, of course,

745 00:37:58.430 --> 00:38:00.780 is that she couldn't finish the,

746 00:38:00.780 --> 00:38:02.240 she couldn't tell her story

747 00:38:02.240 --> 00:38:04.900 because she couldn't finish the letter.

748 00:38:04.900 --> 00:38:08.010 And that has everything to do with literacy,

749 00:38:08.010 --> 00:38:09.700 not just energy literacy,

750 00:38:09.700 --> 00:38:11.630 but just basic literacy,

751 00:38:11.630 --> 00:38:13.120 in terms of people's ability

752 00:38:13.120 --> 00:38:15.220 to really advocate for themselves,

753 00:38:15.220 --> 00:38:19.650 using the tools of writing a letter.

754 00:38:19.650 --> 00:38:20.670 And while I was with her,

755 00:38:20.670 --> 00:38:23.630 I actually finished writing that letter for her  
756 00:38:23.630 --> 00:38:25.450 so that she could submit it.  
757 00:38:25.450 --> 00:38:28.440 And another woman that I met here in New  
York City,  
758 00:38:28.440 --> 00:38:31.220 who basically was praying to God,  
759 00:38:31.220 --> 00:38:33.310 because she was so worried about her bills,  
760 00:38:33.310 --> 00:38:37.500 she kept her oil tank, you know.  
761 00:38:37.500 --> 00:38:41.520 She monitors so closely how much energy she  
used,  
762 00:38:41.520 --> 00:38:45.940 that ultimately, she was always cold in the  
home.  
763 00:38:45.940 --> 00:38:48.830 And she basically says, "I suffer."  
764 00:38:48.830 --> 00:38:52.530 This is really kind of the private form of  
suffering  
765 00:38:52.530 --> 00:38:55.120 that makes people not just worry at night  
766 00:38:56.600 --> 00:38:58.880 but also kind of be sick  
767 00:38:58.880 --> 00:39:01.670 and ultimately sometimes perish in their own  
homes.  
768 00:39:01.670 --> 00:39:03.380 So let's talk about housing interventions.  
769 00:39:03.380 --> 00:39:04.700 And I'm gonna go through this quickly.  
770 00:39:04.700 --> 00:39:08.320 I want to shout out Daniel Cajon,  
771 00:39:08.320 --> 00:39:11.420 who will be joining your faculty and your  
center  
772 00:39:12.500 --> 00:39:13.670 next academic year.  
773 00:39:13.670 --> 00:39:16.670 He has been a wonderful colleague,  
774 00:39:16.670 --> 00:39:20.880 and first friend and mentee, now colleague,  
775 00:39:20.880 --> 00:39:23.140 and we worked on a lot of these  
776 00:39:23.140 --> 00:39:25.560 energy equity issues together.  
777 00:39:25.560 --> 00:39:30.560 But he was also a very important partner  
778 00:39:30.650 --> 00:39:35.270 in thinking through the clean heat transitions  
779 00:39:35.270 --> 00:39:36.463 here in New York City.  
780 00:39:37.340 --> 00:39:38.970 You know, things have gotten a lot better.  
781 00:39:38.970 --> 00:39:40.870 I'm going to go through this very quickly,

782 00:39:40.870 --> 00:39:43.270 because I want to leave time for questions.

783 00:39:43.270 --> 00:39:46.950 But back in, about 2015,

784 00:39:46.950 --> 00:39:50.810 they had phased out the use of the dirtiest oil number six.

785 00:39:50.810 --> 00:39:52.820 And you can see just by its picture,

786 00:39:52.820 --> 00:39:56.920 it's super heavy.

787 00:39:56.920 --> 00:40:00.170 And basically the incomplete combustion

788 00:40:00.170 --> 00:40:03.440 of not just number six,

789 00:40:03.440 --> 00:40:07.830 but it's kind of corresponding more diluted version,

790 00:40:07.830 --> 00:40:11.620 but still dirty version of oil number four,

791 00:40:11.620 --> 00:40:14.350 basically pollute the air.

792 00:40:14.350 --> 00:40:19.210 So second to vehicular emissions are residential buildings

793 00:40:19.210 --> 00:40:23.590 and other buildings responsible for air conditioning.

794 00:40:23.590 --> 00:40:25.360 I'm sorry, for air pollution.

795 00:40:25.360 --> 00:40:30.360 And in this process, probably not surprisingly,

796 00:40:31.550 --> 00:40:35.850 there were many buildings that were burning dirty fuels,

797 00:40:35.850 --> 00:40:40.850 because, you know, New York City is a relatively old city,

798 00:40:41.800 --> 00:40:46.480 with buildings that were kind of turn of the last century,

799 00:40:46.480 --> 00:40:50.060 and also relying on those kind of energy technologies

800 00:40:50.060 --> 00:40:51.163 of yesteryear.

801 00:40:52.120 --> 00:40:56.960 Now, you know, this kind of phasing out of dirty fuels

802 00:40:56.960 --> 00:40:59.233 was an opportunity essentially,

803 00:41:00.079 --> 00:41:03.290 to kind of clean up the air.

804 00:41:03.290 --> 00:41:05.650 And this was during the Bloomberg administration.

805 00:41:05.650 --> 00:41:07.620 And, you know, efficient as they were,

806 00:41:07.620 --> 00:41:10.210 they were like, oh, well, you should also maybe consider

807 00:41:10.210 --> 00:41:12.370 other energy efficiency upgrades,

808 00:41:12.370 --> 00:41:14.103 and many buildings actually did.

809 00:41:16.558 --> 00:41:18.860 So there was kind of almost a complete phase out

810 00:41:18.860 --> 00:41:23.707 of the number six oil by the end of this.

811 00:41:23.707 --> 00:41:25.220 And many actually,

812 00:41:25.220 --> 00:41:29.403 about, over half had actually transitioned to clean fuels.

813 00:41:30.300 --> 00:41:33.373 But as Daniels kind of work suggests,

814 00:41:34.700 --> 00:41:38.180 this actually was not evenly distributed.

815 00:41:38.180 --> 00:41:43.180 So some of the kind of dirtiest fuels continued to be burned

816 00:41:44.600 --> 00:41:49.200 in the lowest income communities in Northern Manhattan,

817 00:41:49.200 --> 00:41:50.930 and the Bronx primarily.

818 00:41:50.930 --> 00:41:53.740 So these are kind of environmental justice communities

819 00:41:53.740 --> 00:41:55.970 based on their racial composition,

820 00:41:55.970 --> 00:41:59.050 and the percent of poverty in the neighborhood.

821 00:41:59.050 --> 00:42:01.940 And they can little afford,

822 00:42:01.940 --> 00:42:04.540 still burning the dirtiest the fuels

823 00:42:04.540 --> 00:42:08.530 and yet, that's actually what is still happening

824 00:42:08.530 --> 00:42:13.530 since number four oil is not to be phased out until 2030.

825 00:42:13.950 --> 00:42:18.950 And so that's kind of one cautionary tale

826 00:42:19.180 --> 00:42:22.400 about yes, the kind of large picture

827 00:42:22.400 --> 00:42:25.480 around transitioning to cleaner fuels,

828 00:42:25.480 --> 00:42:29.210 but also who might be left behind in doing so.

829 00:42:29.210 --> 00:42:32.490 Another area of intervention that I've looked at



830 00:42:32.490 --> 00:42:34.773 is the repositioning of public housing,  
831 00:42:35.670 --> 00:42:40.060 known as the Rental Assistance Demonstration Program.  
832 00:42:40.060 --> 00:42:43.700 So some of you may remember moving to Opportunity,  
833 00:42:43.700 --> 00:42:45.240 or HOPE VI.  
834 00:42:45.240 --> 00:42:48.500 Those were large housing interventions.  
835 00:42:48.500 --> 00:42:50.560 What has happened as a result of,  
836 00:42:50.560 --> 00:42:52.630 in some ways, the insights from like  
837 00:42:52.630 --> 00:42:55.440 you can't just move people out of communities  
838 00:42:55.440 --> 00:42:57.910 that they have known and belong to  
839 00:42:57.910 --> 00:42:59.950 and feel connected to.  
840 00:42:59.950 --> 00:43:04.950 Also, that decreasing the number of public housing units,  
841 00:43:05.140 --> 00:43:06.750 does more in the way of  
842 00:43:06.750 --> 00:43:09.940 actually dispossessing people of their homes,  
843 00:43:09.940 --> 00:43:12.600 and of those beloved communities.  
844 00:43:12.600 --> 00:43:15.440 But that conditions issues are significant  
845 00:43:15.440 --> 00:43:16.570 in public housing.  
846 00:43:16.570 --> 00:43:20.240 In fact, there are billions of dollars  
847 00:43:20.240 --> 00:43:23.810 of capital backlogs in public housing  
848 00:43:23.810 --> 00:43:25.960 that really cripple the opportunity  
849 00:43:25.960 --> 00:43:28.380 for people living in public housing  
850 00:43:28.380 --> 00:43:32.710 to enjoy truly habitable homes.  
851 00:43:32.710 --> 00:43:37.527 And I basically looked at this transition  
852 00:43:38.930 --> 00:43:42.710 in the first ever RAD site in The United States,  
853 00:43:42.710 --> 00:43:45.020 which was in Fresno, California,  
854 00:43:45.020 --> 00:43:47.440 as well as the second one in New York City,  
855 00:43:47.440 --> 00:43:50.870 which was in Betances Houses in the South Bronx.  
856 00:43:50.870 --> 00:43:55.220 And these are some before pictures of the conditions

857 00:43:57.960 --> 00:43:59.930 at Betances.  
858 00:43:59.930 --> 00:44:02.373 And just to kind of give you a sense,  
859 00:44:03.270 --> 00:44:06.057 I mean, you know, this is outside of the units  
860 00:44:06.057 --> 00:44:10.630 and the kind of common stairwells inside of  
the units  
861 00:44:10.630 --> 00:44:11.740 and a bathroom.  
862 00:44:11.740 --> 00:44:14.970 Mold obviously being a huge issue,  
863 00:44:14.970 --> 00:44:17.020 water leaks, etc.  
864 00:44:17.020 --> 00:44:19.910 At Betances they had, like redone the kitchens,  
865 00:44:19.910 --> 00:44:21.930 the bathrooms, the floors,  
866 00:44:21.930 --> 00:44:25.310 upgraded the windows to energy efficient ones,  
867 00:44:25.310 --> 00:44:28.360 included safety measures, like cameras  
868 00:44:28.360 --> 00:44:31.920 and adjusting doors so that they actually shut  
869 00:44:32.860 --> 00:44:35.050 and doing a number of kind of upgrades.  
870 00:44:35.050 --> 00:44:38.340 But a big part of it was around the heating  
871 00:44:38.340 --> 00:44:40.450 and ventilation systems.  
872 00:44:40.450 --> 00:44:43.810 When we did this work in Fresno, California,  
873 00:44:43.810 --> 00:44:47.210 there they had actually upgraded to mini  
splits.  
874 00:44:47.210 --> 00:44:49.240 So to heat pumps,  
875 00:44:49.240 --> 00:44:51.190 which we know are pretty efficient.  
876 00:44:51.190 --> 00:44:52.420 In a place like Fresno  
877 00:44:52.420 --> 00:44:55.210 where heating and cooling are both important,  
878 00:44:55.210 --> 00:44:56.950 it was critical.  
879 00:44:56.950 --> 00:44:58.410 And basically what we found,  
880 00:44:58.410 --> 00:45:00.870 again, kind of consistent with that,  
881 00:45:00.870 --> 00:45:03.670 the four pillars of housing kind of framework  
882 00:45:03.670 --> 00:45:07.630 is that these heating and cooling systems were  
upgraded.  
883 00:45:07.630 --> 00:45:10.720 People had reported increased thermal com-  
fort  
884 00:45:10.720 --> 00:45:12.413 and temperature control.

885 00:45:13.490 --> 00:45:17.450 You know, having access to appliances  
886 00:45:17.450 --> 00:45:20.403 that were newer and more efficient.  
887 00:45:21.280 --> 00:45:25.550 Also, the kind of, just the aesthetics  
888 00:45:25.550 --> 00:45:27.730 and the layout were better.  
889 00:45:27.730 --> 00:45:30.283 People felt better about where they were  
living,  
890 00:45:31.690 --> 00:45:35.163 that they had actively done mold abatement,  
etc.  
891 00:45:36.020 --> 00:45:40.430 People felt an increase in pride of place,  
892 00:45:40.430 --> 00:45:42.100 and the fact that they lived in places  
893 00:45:42.100 --> 00:45:43.390 that had been upgraded.  
894 00:45:43.390 --> 00:45:46.810 And for any of you who have done even minor  
upgrades  
895 00:45:46.810 --> 00:45:48.970 to your living space, like painting,  
896 00:45:48.970 --> 00:45:50.770 you realize just how important  
897 00:45:51.641 --> 00:45:54.420 a refreshed space actually feels.  
898 00:45:54.420 --> 00:45:56.300 But that didn't necessarily address  
899 00:45:56.300 --> 00:45:58.170 all of the problems in public housing.  
900 00:45:58.170 --> 00:45:59.003 I mean, obviously,  
901 00:45:59.003 --> 00:46:03.610 when you have a complex system of providing  
housing  
902 00:46:03.610 --> 00:46:07.500 with oftentimes, that external context,  
903 00:46:07.500 --> 00:46:11.410 like the neighborhood conditions not being  
optimal,  
904 00:46:11.410 --> 00:46:14.350 it continues to be felt among residents,  
905 00:46:14.350 --> 00:46:17.590 and that we actually found in our work.  
906 00:46:17.590 --> 00:46:21.300 At Betances, there was an interesting other  
component,  
907 00:46:21.300 --> 00:46:23.610 which was about providing opportunities  
908 00:46:23.610 --> 00:46:25.410 for people to come together.  
909 00:46:25.410 --> 00:46:28.410 For them to come together to talk to actually  
like,

910 00:46:28.410 --> 00:46:32.810 you know, basically engage in very, very local forms

911 00:46:32.810 --> 00:46:35.400 of governance and democracy.

912 00:46:35.400 --> 00:46:40.400 This is a woman who was basically at Catholic Charities,

913 00:46:41.100 --> 00:46:44.700 Paula Martinez, who was ushering the tenant.

914 00:46:44.700 --> 00:46:45.630 She was a community,

915 00:46:45.630 --> 00:46:48.040 like basically a resident organizer.

916 00:46:48.040 --> 00:46:52.810 And the whole point was to basically empower residents

917 00:46:52.810 --> 00:46:55.070 to come together to talk about a number of things,

918 00:46:55.070 --> 00:46:58.480 not the least of which was a smoke free housing project

919 00:46:58.480 --> 00:47:02.620 that we were working with them to implement.

920 00:47:02.620 --> 00:47:06.980 And then in the two minutes that (mumbles)

921 00:47:06.980 --> 00:47:08.300 I want to kind of end in two minutes.

922 00:47:08.300 --> 00:47:12.900 So basically, it's not just housing level interventions

923 00:47:12.900 --> 00:47:13.733 that are important.

924 00:47:13.733 --> 00:47:16.840 Obviously, energy interventions are also important.

925 00:47:16.840 --> 00:47:18.683 Some of that is about framing.

926 00:47:20.140 --> 00:47:21.340 I wrote a paper a while ago

927 00:47:21.340 --> 00:47:25.230 that basically linked energy sacrifice zones,

928 00:47:25.230 --> 00:47:30.010 to communities that are essentially sacrificing

929 00:47:30.010 --> 00:47:31.930 on a day to day basis,

930 00:47:31.930 --> 00:47:36.510 and provided ways of thinking about energy justice

931 00:47:36.510 --> 00:47:38.690 as a rights-based framework.

932 00:47:38.690 --> 00:47:40.383 Sorry, this is really annoying.

933 00:47:41.360 --> 00:47:45.380 So the right to healthy, sustainable energy,

934 00:47:45.380 --> 00:47:47.670 the right to the best available energy infrastructure,

935 00:47:47.670 --> 00:47:49.130 the right to affordable energy,  
936 00:47:49.130 --> 00:47:53.000 and the right to uninterrupted energy service.  
937 00:47:53.000 --> 00:47:55.370 This is Cecil Corbin-Mark,  
938 00:47:55.370 --> 00:47:57.950 who we lost last year, really sadly.  
939 00:47:57.950 --> 00:48:01.350 So he was a pioneer and a visionary  
940 00:48:01.350 --> 00:48:05.460 in thinking about ways of providing access  
941 00:48:05.460 --> 00:48:09.140 to clean energy and renewable energy  
942 00:48:09.140 --> 00:48:11.393 in communities like Harlem,  
943 00:48:13.375 --> 00:48:14.860 and upper Manhattan.  
944 00:48:14.860 --> 00:48:16.670 And we need more of that, right?  
945 00:48:16.670 --> 00:48:20.130 That's part of what energy justice is about.  
946 00:48:20.130 --> 00:48:21.560 As well as thinking about,  
947 00:48:21.560 --> 00:48:23.560 is it really actually necessary for us  
948 00:48:23.560 --> 00:48:24.730 to be shutting people off  
949 00:48:24.730 --> 00:48:28.233 as a way of kind of collecting on payments?  
950 00:48:30.850 --> 00:48:33.000 In California, they've actually passed  
951 00:48:33.000 --> 00:48:35.410 the Disconnection Reform Act  
952 00:48:35.410 --> 00:48:37.685 to reduce the number of disconnections  
953 00:48:37.685 --> 00:48:42.520 and enroll more people in medical baseline  
programs  
954 00:48:42.520 --> 00:48:45.840 and other shutoff protection services  
955 00:48:45.840 --> 00:48:50.590 so that less households are impacted by dis-  
connections.  
956 00:48:50.590 --> 00:48:52.883 And then there's a LIHEAP piece.  
957 00:48:53.780 --> 00:48:56.880 You know, in New York State,  
958 00:48:56.880 --> 00:49:01.880 there's only protections around the holiday  
season,  
959 00:49:02.030 --> 00:49:05.620 and also for people that are of a certain age  
960 00:49:05.620 --> 00:49:09.083 and have medical conditions.  
961 00:49:10.660 --> 00:49:12.410 But deferred payments,  
962 00:49:12.410 --> 00:49:16.200 so like a payment plan is actually the usual,  
963 00:49:16.200 --> 00:49:18.570 sorry, I don't know what's going on.

964 00:49:18.570 --> 00:49:22.170 The usual kind of way in which people try  
965 00:49:22.170 --> 00:49:25.760 to manage whatever outstanding bills they  
have  
966 00:49:25.760 --> 00:49:27.030 with their utility companies,  
967 00:49:27.030 --> 00:49:31.540 but oftentimes, these are promises that can't  
be kept.  
968 00:49:31.540 --> 00:49:34.470 And so I'm gonna (mumbles)  
969 00:49:34.470 --> 00:49:38.930 This is a kind of a rundown of energy justice  
solutions,  
970 00:49:38.930 --> 00:49:42.543 rethinking energy utility rate structures,  
971 00:49:43.720 --> 00:49:45.920 the shut off moratoriums,  
972 00:49:45.920 --> 00:49:47.010 not just seasonally,  
973 00:49:47.010 --> 00:49:49.800 but obviously COVID opened up the idea  
974 00:49:49.800 --> 00:49:52.020 that maybe we don't have to turn people off,  
975 00:49:52.020 --> 00:49:55.810 and we should find other ways of ensuring  
976 00:49:55.810 --> 00:49:58.530 that people have access to energy assistance  
benefits,  
977 00:49:58.530 --> 00:50:00.113 like the ones that I've mentioned before,  
978 00:50:00.113 --> 00:50:01.970 kind of improving housing codes  
979 00:50:01.970 --> 00:50:04.210 and energy standards and buildings,  
980 00:50:04.210 --> 00:50:08.650 and also kind of clean energy policies that are  
inclusive,  
981 00:50:08.650 --> 00:50:10.980 and that are intentional about ensuring  
982 00:50:10.980 --> 00:50:14.380 that people of color and low-income folks  
983 00:50:14.380 --> 00:50:16.580 are able to do their part.  
984 00:50:16.580 --> 00:50:19.310 And this is this little story about me  
985 00:50:19.310 --> 00:50:22.650 and basically, the fact that I do this kind of  
thing called  
986 00:50:22.650 --> 00:50:24.400 social impact real estate  
987 00:50:24.400 --> 00:50:27.630 where I have totally rehab buildings,  
988 00:50:27.630 --> 00:50:30.240 and in the South Bronx where I grew up.  
989 00:50:30.240 --> 00:50:33.030 And incorporated solar, for instance,  
990 00:50:33.030 --> 00:50:34.760 and energy efficiency

991 00:50:34.760 --> 00:50:38.800 has been a really kind of interesting proof of concept,  
992 00:50:38.800 --> 00:50:42.325 opportunity to think about reinvesting  
993 00:50:42.325 --> 00:50:45.330 in low-income communities from within.  
994 00:50:45.330 --> 00:50:48.030 And so with that, I will stop sharing,  
995 00:50:48.030 --> 00:50:51.360 and invite all of you to ask questions.  
996 00:50:51.360 --> 00:50:53.590 Sorry that I didn't need more time.  
997 00:50:53.590 --> 00:50:57.130 It was maybe more than I could do in 40 minutes.  
998 00:51:00.000 --> 00:51:02.346 And I also wanna just (mumbles)  
999 00:51:02.346 --> 00:51:04.770 So Danya Keene, I know,  
1000 00:51:04.770 --> 00:51:06.370 I'm here with our Arline Geronimus  
1001 00:51:06.370 --> 00:51:08.170 at the Russell Sage Foundation,  
1002 00:51:08.170 --> 00:51:09.650 and I'm a big fan of your work,  
1003 00:51:09.650 --> 00:51:11.393 and I'm happy to see that you're here.  
1004 00:51:13.236 --> 00:51:14.203 <v ->Thank you Diana.</v>  
1005 00:51:14.203 --> 00:51:16.754 I think this is very fascinating.  
1006 00:51:16.754 --> 00:51:19.627 (indistinct)  
1007 00:51:19.627 --> 00:51:21.390 I'm sure the students are enjoying  
1008 00:51:21.390 --> 00:51:24.310 this real world examples and experiences.  
1009 00:51:24.310 --> 00:51:27.150 And actually, we have gathered a lot of questions for you  
1010 00:51:27.150 --> 00:51:28.640 from students already.  
1011 00:51:28.640 --> 00:51:30.040 And I just want to remind you  
1012 00:51:30.040 --> 00:51:32.550 that although we only have seven minutes left  
1013 00:51:32.550 --> 00:51:35.360 but for our own audience online,  
1014 00:51:35.360 --> 00:51:36.530 if you do have a question,  
1015 00:51:36.530 --> 00:51:38.813 please post them in the chat box.  
1016 00:51:39.830 --> 00:51:43.120 The first question is actually related to your,  
1017 00:51:43.120 --> 00:51:44.370 showing the examples

1018 00:51:44.370 --> 00:51:47.730 and also you mentioned a very interesting perspective

1019 00:51:47.730 --> 00:51:50.543 of increasing the energy standard.

1020 00:51:53.360 --> 00:51:55.670 Several students have been interested in like,

1021 00:51:57.720 --> 00:52:00.520 how feasible or beneficial with policies

1022 00:52:00.520 --> 00:52:03.770 focused on the energy efficiency

1023 00:52:03.770 --> 00:52:07.100 that can be used to protect the low-income

1024 00:52:07.100 --> 00:52:10.210 and people of color families

1025 00:52:10.210 --> 00:52:11.933 from the energy security.

1026 00:52:13.670 --> 00:52:18.670 <v ->I mean, I think that from the energy performance</v>

1027 00:52:19.230 --> 00:52:21.813 and building standard perspective,

1028 00:52:23.390 --> 00:52:26.810 as it intersects with those that are living

1029 00:52:26.810 --> 00:52:29.190 in subsidized housing,

1030 00:52:29.190 --> 00:52:32.770 or in rent-stabilized housing,

1031 00:52:32.770 --> 00:52:35.490 there's always the kind of need to,

1032 00:52:35.490 --> 00:52:40.490 of course, provide access to the kind of best performance.

1033 00:52:42.210 --> 00:52:45.060 I mean, a lot of the 311 no heat complaints

1034 00:52:45.060 --> 00:52:48.830 are actually coming from people

1035 00:52:48.830 --> 00:52:51.363 that are living in those very same buildings.

1036 00:52:52.410 --> 00:52:56.630 But we also need to couple that with tenant protections.

1037 00:52:56.630 --> 00:52:58.110 And that was a recognition

1038 00:52:58.110 --> 00:53:03.110 that really came as a result of the clean heat work.

1039 00:53:03.770 --> 00:53:05.690 So before they started to do

1040 00:53:06.672 --> 00:53:09.773 the kind of grading system for buildings,

1041 00:53:10.820 --> 00:53:12.580 in New York City, first commercially,

1042 00:53:12.580 --> 00:53:16.683 and now, increasingly, in residential buildings,

1043 00:53:17.553 --> 00:53:20.660 it was so clear that some landlords were using that



1044 00:53:20.660 --> 00:53:22.700 as an opportunity, essentially,

1045 00:53:22.700 --> 00:53:25.030 to kick long-term tenants out.

1046 00:53:25.030 --> 00:53:29.190 The ones that were living in gentrifying neighborhoods,

1047 00:53:29.190 --> 00:53:32.130 where they could command more rents.

1048 00:53:32.130 --> 00:53:35.640 And they use these kinds of capital improvement,

1049 00:53:35.640 --> 00:53:37.490 of course, I'm just using a New York City example.

1050 00:53:37.490 --> 00:53:40.950 But they use the capital improvement assessments,

1051 00:53:40.950 --> 00:53:43.230 essentially, to make it almost impossible

1052 00:53:43.230 --> 00:53:45.900 for those long-term residents to stay

1053 00:53:45.900 --> 00:53:48.660 and to afford to be able to stay.

1054 00:53:48.660 --> 00:53:52.930 And what I have concluded in,

1055 00:53:52.930 --> 00:53:55.290 kind of assessing what this ultimately looks like,

1056 00:53:55.290 --> 00:54:00.120 is that there has to be a much more kind of concerted effort

1057 00:54:00.120 --> 00:54:03.002 to support those landlords

1058 00:54:03.002 --> 00:54:07.270 and even possibly subsidizing,

1059 00:54:07.270 --> 00:54:12.270 or kind of completely providing grants to those landlords

1060 00:54:15.660 --> 00:54:19.130 in exchange for allowing people to stay in those buildings.

1061 00:54:19.130 --> 00:54:24.130 Because it doesn't do much for people to actually like,

1062 00:54:25.781 --> 00:54:26.614 (mumbles)

1063 00:54:26.614 --> 00:54:30.880 for the physical conditions of the buildings to improve

1064 00:54:30.880 --> 00:54:33.430 if the people that have been living there forever

1065 00:54:33.430 --> 00:54:36.230 and sometimes suffering in significant ways

1066 00:54:36.230 --> 00:54:38.190 to not be able to benefit essentially.

1067 00:54:38.190 --> 00:54:40.053 So I think this is,  
 1068 00:54:41.470 --> 00:54:44.950 it's an area for kind of more consideration,  
 1069 00:54:44.950 --> 00:54:46.770 but it's not going to be,  
 1070 00:54:46.770 --> 00:54:48.360 it won't go away,  
 1071 00:54:48.360 --> 00:54:49.330 especially as we think  
 1072 00:54:49.330 --> 00:54:53.100 about the electrification of buildings,  
 1073 00:54:53.100 --> 00:54:58.100 both in the introduction of kind of clean  
 cooking options  
 1074 00:54:58.230 --> 00:55:01.470 as well as clean eating options and cooling,  
 1075 00:55:01.470 --> 00:55:02.830 absolutely, we have to think  
 1076 00:55:02.830 --> 00:55:05.250 about the tenant protection aspects.  
 1077 00:55:05.250 --> 00:55:07.100 And I don't know that we have it all figured  
 out,  
 1078 00:55:07.100 --> 00:55:09.090 but it's definitely something  
 1079 00:55:09.090 --> 00:55:11.833 that I think has to be more front of mind for  
 policymakers.  
 1080 00:55:13.479 --> 00:55:14.312 <v ->Thank you Diana.</v>  
 1081 00:55:14.312 --> 00:55:15.990 We're having some background noise.  
 1082 00:55:15.990 --> 00:55:17.288 Sorry about that.  
 1083 00:55:17.288 --> 00:55:20.560 But we do have a question from actually  
 Susie Row.  
 1084 00:55:20.560 --> 00:55:21.530 She's wondering like,  
 1085 00:55:21.530 --> 00:55:26.530 do you think that HHS selection of the (mum-  
 bles)  
 1086 00:55:27.105 --> 00:55:31.370 to Justice40 Initiative pilots  
 1087 00:55:31.370 --> 00:55:34.673 will provide an opportunity for policy re-  
 forms?  
 1088 00:55:36.240 --> 00:55:41.240 <v ->Yeah, I mean, so Justice40 is definitely  
 an opportunity</v>  
 1089 00:55:42.800 --> 00:55:47.800 to essentially do what we did in public health,  
 right?  
 1090 00:55:48.610 --> 00:55:51.200 Health in all policies.  
 1091 00:55:51.200 --> 00:55:52.250 You know, in this case,

1092 00:55:52.250 --> 00:55:55.573 it's basically thinking about, you know,  
1093 00:55:57.120 --> 00:56:01.103 low-income people of color,  
1094 00:56:02.140 --> 00:56:04.250 the need to transition  
1095 00:56:04.250 --> 00:56:08.900 and have kind of climate considerations,  
1096 00:56:08.900 --> 00:56:11.350 be front of mind together.  
1097 00:56:11.350 --> 00:56:14.233 I do think it has a huge,  
1098 00:56:16.010 --> 00:56:18.690 it presents a huge opportunity.  
1099 00:56:18.690 --> 00:56:23.690 I think the implementation of this is yet to  
be seen.  
1100 00:56:25.170 --> 00:56:29.380 Dr. Tony Reames, who used to be at Uni-  
versity of Michigan,  
1101 00:56:29.380 --> 00:56:33.957 and is now basically heading up Justice40 at  
the DOE  
1102 00:56:34.820 --> 00:56:36.020 will basically (mumbles)  
1103 00:56:36.020 --> 00:56:40.180 I believe that he kind of has all of those  
intentions  
1104 00:56:40.180 --> 00:56:41.633 and will do his best.  
1105 00:56:42.790 --> 00:56:47.360 But I think the policy situation in Congress  
right now  
1106 00:56:47.360 --> 00:56:48.870 is challenging,  
1107 00:56:48.870 --> 00:56:50.950 and it's a little hard to predict,  
1108 00:56:50.950 --> 00:56:54.543 essentially what will be coming.  
1109 00:56:56.070 --> 00:56:58.420 So, I think in its spirit,  
1110 00:56:58.420 --> 00:57:01.690 it's right in its implementation.  
1111 00:57:01.690 --> 00:57:02.750 It's yet to be seen,  
1112 00:57:02.750 --> 00:57:05.890 but I think that in the same way that we  
made big strides  
1113 00:57:05.890 --> 00:57:07.920 in thinking about health in all policies,  
1114 00:57:07.920 --> 00:57:09.140 the Justice40 piece,  
1115 00:57:09.140 --> 00:57:12.590 and supporting environmental justice orga-  
nizations,  
1116 00:57:12.590 --> 00:57:13.940 community-based organizations,  
1117 00:57:13.940 --> 00:57:18.460 all of those kind of elements of Justice40

1118 00:57:18.460 --> 00:57:20.370 will hopefully make it successful  
1119 00:57:20.370 --> 00:57:22.763 in addressing many of these challenges.  
1120 00:57:25.100 --> 00:57:25.933 <v ->Thank you Diana.</v>  
1121 00:57:25.933 --> 00:57:27.310 I think that,  
1122 00:57:27.310 --> 00:57:30.500 although there are many questions students  
would ask,  
1123 00:57:30.500 --> 00:57:32.460 but we are running out of time.  
1124 00:57:32.460 --> 00:57:34.970 And it's a great pleasure to have you here,  
1125 00:57:34.970 --> 00:57:37.800 and thank you so much for this amazing  
1126 00:57:37.800 --> 00:57:39.560 and fantastic talk.  
1127 00:57:39.560 --> 00:57:40.526 <v ->Thank you.</v>  
1128 00:57:40.526 --> 00:57:41.590 Thank you so much for the invitation.  
1129 00:57:41.590 --> 00:57:42.790 I wish you all the best.