IN THE DISTRICT COURT OF CLEVELAND COUNTY
STATE OF OKLAHOMA

STATE OF OKLAHOMA, ex rel.,	§	
MIKE HUNTER,	§	
ATTORNEY GENERAL OF OKLAHOMA,	§	
	§	
Plaintiff,	§	
	§	
vs.	§	**Case No. CJ-2017-816**
	§	**Judge Thad Balkman**
(1) PURDUE PHARMA L.P.;	§	
(2) PURDUE PHARMA, INC.;	§	
(3) THE PURDUE FREDERICK COMPANY;	§	
(4) TEVA PHARMACEUTICALS USA, INC.;	§	**William C. Hetherington**
(5) CEPHALON, INC.;	§	**Special Discovery Master**
(6) JOHNSON & JOHNSON;	§	
(7) JANSSEN PHARMACEUTICALS, INC.;	§	
(8) ORTHO-McNEIL-JANSSEN	§	
PHARMACEUTICALS, INC., n/k/a	§	
JANSSEN PHARMACEUTICALS, INC.;	§	
(9) JANSSEN PHARMACEUTICA, INC.,	§	
n/k/a JANSSEN PHARMACEUTICALS, INC.;	§	
(10) ALLERGAN, PLC, f/k/a ACTAVIS PLC,	§	
f/k/a ACTAVIS, INC., f/k/a WATSON	§	
PHARMACEUTICALS, INC.;	§	
(11) WATSON LABORATORIES, INC.;	§	
(12) ACTAVIS LLC; and	§	
(13) ACTAVIS PHARMA, INC.,	§	
f/k/a WATSON PHARMA, INC.,	§	
	§	
Defendants.	§	

NOTICE OF FILING OF THE STATE'S PROPOSED (1) FINAL JUDGMENT & (2) FINDINGS OF FACT AND CONCLUSIONS OF LAW

PART 3

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	Oklahoma City, OK	(Trial Tr. (7/2/19 p.m., Diesselhorst) at 217: 25 - 218: 4; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	September 14, 2009 Oklahoma City, OK	"quikc hit with nucynta" (Trial Tr. (7/2/19 p.m., Diesselhorst) at 217: 25 - 218: 4; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	September 22, 2009 Oklahoma City, OK	"invited to program" (Trial Tr. (7/2/19 p.m., Diesselhorst) at 218: 5 - 7; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	October 2, 2009 Oklahoma City, OK	"quick hit with nucynta" (Trial Tr. (7/2/19 p.m., Diesselhorst) at 218: 8 - 11; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	November 16, 2009 Oklahoma City, OK	"quick hit with n and u" (Trial Tr. (7/2/19 p.m., Diesselhorst) at 218: 8 - 11; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	December 9, 2009 Oklahoma City, OK	"quic khit with n and u" (Trial Tr. (7/2/19 p.m., Diesselhorst) at 218: 8 - 11; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	December 14, 2009 – June 28, 2010 Oklahoma City, OK	" " (blank) (Trial Tr. (7/2/19 p.m., Diesselhorst) at 218: 12 - 19; Ct. Ex. 162 (excerpts from S2481-S2492))
Melynda McClure	November 18, 2010 Oklahoma City, OK	" " (blank) (Trial Tr. (7/2/19 p.m., Diesselhorst) at 218: 20 - 21; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	October 15, 2009 Oklahoma City, OK	"quick hit with nucynta and ultram er"

		(Trial Tr. (7/2/19 p.m., Diesselhorst) at 220: 9 - 25; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	March 16, 2010 Oklahoma City, OK	" " (blank) (Trial Tr. (7/2/19 p.m., Diesselhorst) at 221: 1 - 25; Ct. Ex. 162 (excerpts from S2481-S2492))
Eric Thornhill	August 12, 2002 Oklahoma City, OK	"Dur – Forumlary was main concern. Said he likes dur and mentioned there were a number of patients taking short acting around the clock. He agreed that 72 hrs is better than 8 or 12 hrs when it comes to pain relief. He felt that Dur was something that he could use more of. Aci – Formulary was main concern Spor-Likes spor. Said he has had patients ask for Penlac. He said he knew it didn't work, but he wrote it for them to try anyway." (Trial Tr. (7/2/19 p.m., Diesselhorst) at 228: 4 – 229: 5; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	July 10, 2009 Oklahoma, OK	"went over all the new nucynta info and also went over mc info and ultram er info" (Trial Tr. (7/2/19 p.m., Diesselhorst) at 235: 8 - 12; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	July 21, 2009 Oklahoma, OK	"qiuick hit with all the info-she is going to followed up with me about it" (Trial Tr. (7/2/19 p.m., Diesselhorst) at 235: 13 - 21; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	August 5, 2009 Oklahoma, OK	"quick hit with nucynta and ultram er" (Trial Tr. (7/2/19 p.m., Diesselhorst) at 235: 13 - 21; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	October 1, 2009 Oklahoma, OK	"quick hit with nucynta and ultram er"

		(Trial Tr. (7/2/19 p.m., Diesselhorst) at 235: 13 - 21; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	October 16, 2009 Oklahoma, OK	"quick hit with nucynta and ultram er" (Trial Tr. (7/2/19 p.m., Diesselhorst) at 235: 13 - 21; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	November 13, 2009 Oklahoma, OK	" " (blank) (Trial Tr. (7/2/19 p.m., Diesselhorst) at 235: 13 - 21; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	February 20, 2010 Oklahoma, OK	" " (blank) (Trial Tr. (7/2/19 p.m., Diesselhorst) at 235: 13 - 21; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	September 16, 2010 Oklahoma, OK	" " (blank) (Trial Tr. (7/2/19 p.m., Diesselhorst) at 235: 13 - 21; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	April 15, 2011 Oklahoma, OK	" " (blank) (Trial Tr. (7/2/19 p.m., Diesselhorst) at 235: 13 - 21; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	August 3, 2011 Oklahoma, OK	" " (blank) (Trial Tr. (7/2/19 p.m., Diesselhorst) at 235: 24 – 236: 19; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	July 1, 2009 Oklahoma City, OK	"went over ultram er-tolerability and better functioning and also quick hit with all the new info on nucynta" (Trial Tr. (7/2/19 p.m., Diesselhorst) at 237: 3 - 7; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	July 14, 2011 Oklahoma City, OK	" " (blank)

		(Trial Tr. (7/2/19 p.m., Diesselhorst) at 237: 8 - 10; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	October 22, 2009 Oklahoma City, OK	"quick hit with nucynta and ultram er" (Trial Tr. (7/2/19 p.m., Diesselhorst) at 238: 20 – 239: 1; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	June 23, 2009 Oklahoma City, OK	"went over all the new info for nucynta-crazy" (Trial Tr. (7/2/19 p.m., Diesselhorst) at 240: 2 - 9; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	February 4, 2010 Oklahoma City, OK	"speaker program" (Trial Tr. (7/2/19 p.m., Diesselhorst) at 240: 10 - 17; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	December 11, 2014 Oklahoma City, OK	" " (blank) (Trial Tr. (7/2/19 p.m., Diesselhorst) at 240: 18 - 24; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	July 8, 2009 Oklahoma City, OK	" " (blank) (Trial Tr. (7/2/19 p.m., Diesselhorst) at 241: 5 - 12; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	December 1, 2010 Oklahoma City, OK	" " (blank) (Trial Tr. (7/2/19 p.m., Diesselhorst) at 241: 13 - 20; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	July 2, 2009 Oklahoma City, OK	"quick hit with nucynta info" (Trial Tr. (7/2/19 p.m., Diesselhorst) at 242: 9 - 12; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	August 4, 2009 Oklahoma City, OK	"quick hit with nucynta and followed up with mc and pharm info"

		(Trial Tr. (7/2/19 p.m., Diesselhorst) at 242: 13 - 16; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	July 29, 2009 Oklahoma City, OK	"went over all the info with nucynta and reminder of the pharmacies" (Trial Tr. (7/2/19 p.m., Diesselhorst) at 242: 17 - 20; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	January 15, 2010 Oklahoma City, OK	" " (blank) (Trial Tr. (7/2/19 p.m., Diesselhorst) at 242: 21 - 22; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	December 12, 2011 Oklahoma City, OK	" " (blank) (Trial Tr. (7/2/19 p.m., Diesselhorst) at 242: 23 – 243: 1; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	December 14, 2009 Oklahoma City, OK	"quick hit with n and u" (Trial Tr. (7/2/19 p.m., Diesselhorst) at 243: 12 - 18; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	August 6, 2009 Newcastle, OK	"quick hit with n" (Trial Tr. (7/2/19 p.m., Diesselhorst) at 247: 5 - 11; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	October 13, 2009 Newcastle, OK	"quick hit with nucynta" (Trial Tr. (7/2/19 p.m., Diesselhorst) at 247: 13 - 24; Ct. Ex. 162 (excerpts from S2481-S2492))
Drue Diesselhorst	March 3, 2011 Lawton, OK	" " (blank) (Trial Tr. (7/2/19 p.m., Diesselhorst) at 248: 13 – 249: 2; Ct. Ex. 162 (excerpts from S2481-S2492))
Bill Roddy	December 7, 2011 – May 16, 2012 Oklahoma City, OK	" " (blank)

		(Trial Tr. (7/2/19 p.m., Diesselhorst) at 249: 8 - 20 ; Ct. Ex. 162 (excerpts from S2481-S2492))
Eric Thornhill	April 16, 2003 Oklahoma City, OK	"dur - said that functionality is his main focus when treating cp. Discussed the voucher program and the ease of conveying pts over from sao or other lao's to dur" (Trial Tr. (6/28/19 p.m., Schick) at 235: 23 – 236: 13; Ct. Ex. 143; excerpts from S2481-S2492))
Eric Thornhill	June 3, 2003 Oklahoma City, OK	"dur – continues to use vouchers. asked for 10 more. went over patient pak" (Trial Tr. (6/28/19 p.m., Schick) at 236: 14 – 237: 6; Ct. Ex. 143; excerpts from S2481-S2492))
Eric Thornhill	September 24, 2003 Oklahoma City, OK	"dur-sees mostly oa of the low back and neck (spine). He measure pt results with function. Dur is his first line option. ult-likes and says that he uses instead of hc." (Trial Tr. (6/28/19 p.m., Schick) at 239: 3 - 23; Ct. Ex. 143; excerpts from S2481-S2492))
Eric Thornhill	October 3, 2003 Oklahoma City, OK	"dur-continues to use first line. looked at a couple of specific pts and when he felt they would be going to dur. Currently. They are taking ult, nsaid and sao." (Trial Tr. (6/28/19 p.m., Schick) at 239: 24 – 242: 23; Ct. Ex. 143; excerpts from S2481-S2492))
Eric Thornhill	September 17, 2004 Oklahoma City, OK	"dur-complains about all lao cost issues. he prefers meth first. he likes dur for the reasons we discussed but he deals with many workers comp pts who he thinks need to off opioids all together. he takes them off their lao, puts them on meth for 2-3 wks and takes them completely off their med. ult-ub4"

		(Trial Tr. (6/28/19 p.m., Schick) at 187: 23 – 188: 8; Ct. Ex. 143 (excerpts from S2481-S2492))
Eric Thornhill	November 17, 2003 Oklahoma City, OK	"confirmed attendance to program" (Trial Tr. (6/28/19 p.m., Schick) at 243: 21 – 244: 2; Ct. Ex. 143 (excerpts from S2481-S2492))
Eric Thornhill	January 23, 2004 Oklahoma City, OK	"dur-asked if he measures kad results with function or ore pain control? he has a standard sheet for all opioids but likes our tear sheets as well. we discussed measuring the progress with this form over a period of time. he wants to hear Dr. Kessler speak!" (Trial Tr. (6/28/19 p.m., Schick)) at 244: 3 - 7; Ct. Ex. 143 (excerpts from S2481-S2492))
Eric Thornhill	January 28, 2004 Oklahoma City, OK	"dur-he began talking himself into needing to use more dur for function reasons. Using 2 lao is something he liked to hear for those pts taking multiple sao while on higher doses of lao." (Trial Tr. (6/28/19 p.m., Schick)) at 244: 3 - 7; Ct. Ex. 143 (excerpts from S2481-S2492))
Eric Thornhill	March 11, 2004 Oklahoma City, OK	"dur-dr. kessler spoke. objections that came up lie around abuse, aberrant behavior, and overall efficacy. dr kessler positioned dur as a first line treatment after sao for several reasons. it gives him the opportunity to address pts outside problems besides medication issues they frequently have when on pills. second, it is the best defense against abuse potential. finally, it is 72 hrs. if pts want a long acting, then why wouldn't they want the longest acting. ult-addressed toward the fibromyalgia pt due to formulation of ssri and opioid." (Trial Tr. (6/28/19 p.m., Schick)) at 244: 12 – 245: 2; Ct. Ex. 143 (excerpts from S2481-S2492))

Eric Thornhill	March 22, 2004 Oklahoma City, OK	"dur-general concerns with dur are primarily with nausea and the inability to keep pts on med for first few days. nurse mentioned that some pts are complaining about the same issues with orals. I discussed the opion he had with dur and asked when he was converting them. learning that he might possibly be converting them too early, I addressed the issue and then deferred him on to dr kessler. they had a great discussion at the dinner and both agreed to discuss any further issues. follow up on his contacting dr kessler. ult-ub4" (Trial Tr. (6/28/19 p.m., Schick)) at 245: 3 - 11; Ct. Ex. 143 (excerpts from S2481-S2492))
Eric Thornhill	June 14, 2004 Oklahoma City, OK	"dur-went over tech piece with him and nurse who writes out all scripts. they agreed to write daw on all dur scripts. ult-ub4!!" (Trial Tr. (6/28/19 p.m., Schick)) at 245: 12 - 23; Ct. Ex. 143 (excerpts from S2481-S2492))
Eric Thornhill	December 7, 2004 Oklahoma City, OK	"will be doing a cme at MWC regional over pain mgmt on behalf of a grant by OMP." (Trial Tr. (6/28/19 p.m., Schick)) at 245: 24 – 246: 8; Ct. Ex. 143 (excerpts from S2481-S2492))

574. Defendants additionally executed their strategy of targeting high-opioid-prescribing, or "high decile," physicians in Oklahoma. *See, e.g.*, S-1358; S-2357; S-1844; S-0510; S-903; Trial Tr. (6/10/19 p.m., Stone) at 53:20-54:17.

575. Defendants introduced documentary evidence regarding certain Oklahoma doctors, who, at various times, were the subjects of various State agencies' regulatory actions or investigations due to their opioid prescribing practices. *See, e.g.*, J-594, J-2942-

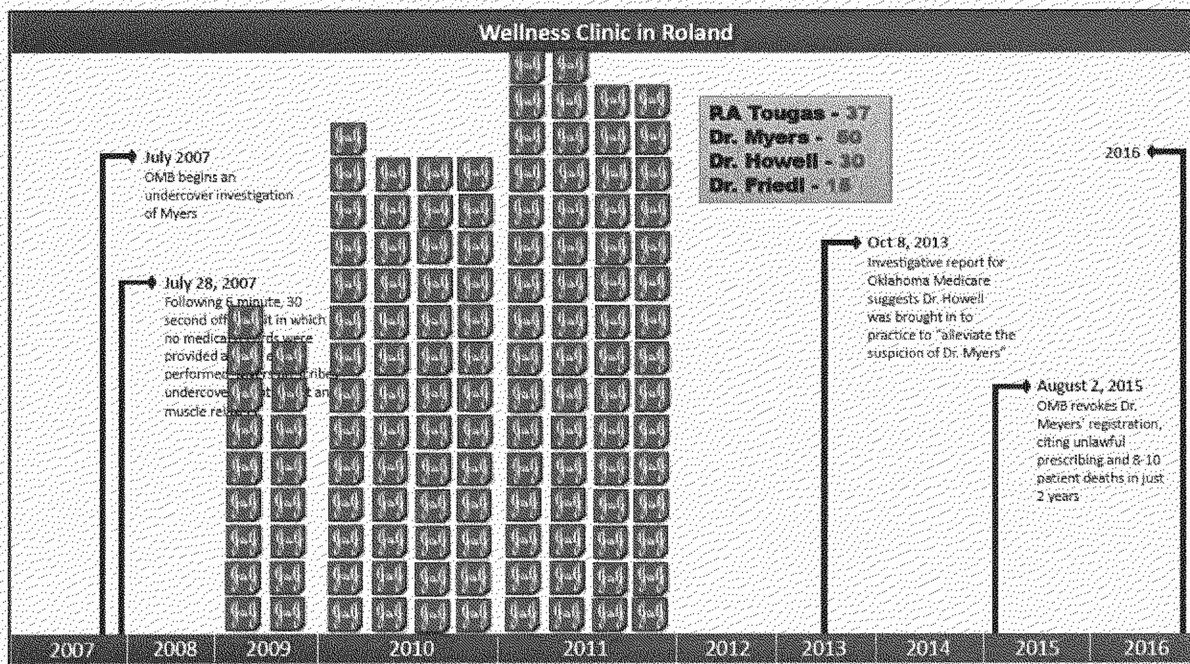
B; Trial Tr. (6/25/19 p.m., Commissioner White) at 103:18-130:12, Trial Tr. (6/26/19 a.m., Commissioner White) at 6:9-10:14 (doctors at the Roland Pain Clinic); *see also, e.g.*, Trial Tr. (6/26/19 a.m., Commissioner White) at 55:5-61:23 (Dr. Dennis Roberts); Trial Tr. (6/26/19 a.m., Commissioner White) at 82:11-94:9 (Dr. Harvey Jenkins). However, Defendants did not call any of these individuals to testify or otherwise offer their testimony as evidence. These high opioid prescribers in Oklahoma were the specific targets and recipients of considerable marketing efforts and attention by Defendants' sales force.

576. For example, Defendants' sales force targeted Dr. Ronald Myers of the Roland Pain Clinic. Trial Tr. (6/26/19 p.m., Commissioner White) at 69:17-74:5; S-1348 (Defendants' sales representatives identifying Dr. Ronald Myers as a "HUGE Nucynta target"). Trial Tr. (6/3/19 a.m., J&J: Deem-Eshleman) at 19:16-29:17. Regarding other doctors in the Roland Pain Clinic, the same representative stated: "it would be insane for me not to call on them while I am at the clinic." S-1348; *see also* Trial Tr. (6/3/19 a.m., J&J: Deem-Eshleman) at 19:16-29:17. The representative also noted Dr. Myers' "large cash pay business." S-1348; *see also* Trial Tr. (6/3/19 a.m., J&J: Deem-Eshleman) at 19:16-29:17. The representative sought to bring one of Defendants' paid speakers in to speak to the doctors at the clinic. S-1348; *see also* Trial Tr. (6/3/19 a.m., J&J: Deem-Eshleman) at 19:16-29:17. All of this occurred at a time when Defendants were aware of the rising problems with opioids in the United States. *See* Trial Tr. (6/3/19 a.m., J&J: Deem-Eshleman) at 19:16-34:04.

577. When a new pain medicine doctor moved to a particular sales representative's region in Roland, she requested permission to add this representative to

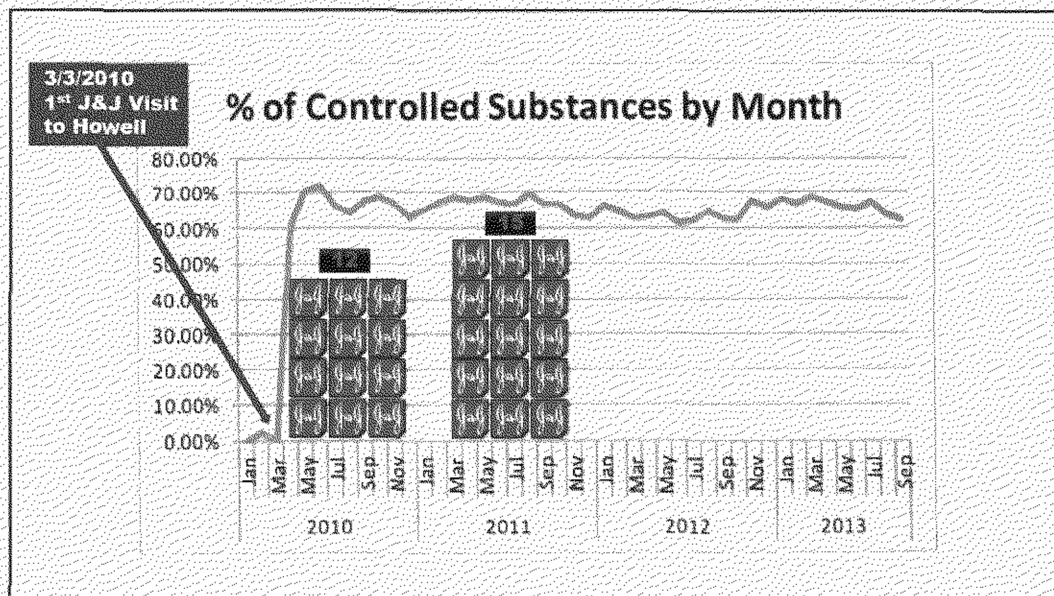
her call plan. S-1360; *see also* Trial Tr. (6/3/19 a.m., J&J: Deem-Eshleman) at 29:21-34:04. In response, her manager told her that if she added the new doctor now, she would not get compensated yet. S-1360; *see also* Trial Tr. (6/3/19 a.m., J&J: Deem-Eshleman) at 29:21-34:04. The manager stated: "If it was me I would not call on her until after the third quarter because if she writes any Nucynta now I have a feeling that you will have to pace against her numbers in the 4th quarter." S-1360; *see also* Trial Tr. (6/3/19 a.m., J&J: Deem-Eshleman) at 29:21-34:04. Notably, by the time of these emails, Defendants had removed sales representatives' ability to write freeform call notes and, instead, moved to a pre-programmed "dropdown" system. *See* Trial Tr. (6/3/19 a.m., J&J: Deem-Eshleman) at 29:21-34:04; *see also* Trial Tr. (6/3/19 p.m., J&J: Deem-Eshleman) at 33:10-34:16.

578. Ultimately, Defendants' sales representatives made more than 130 sales visits to the prescribers of the Roland Pain Clinic, which the State illustrated at trial as follows:



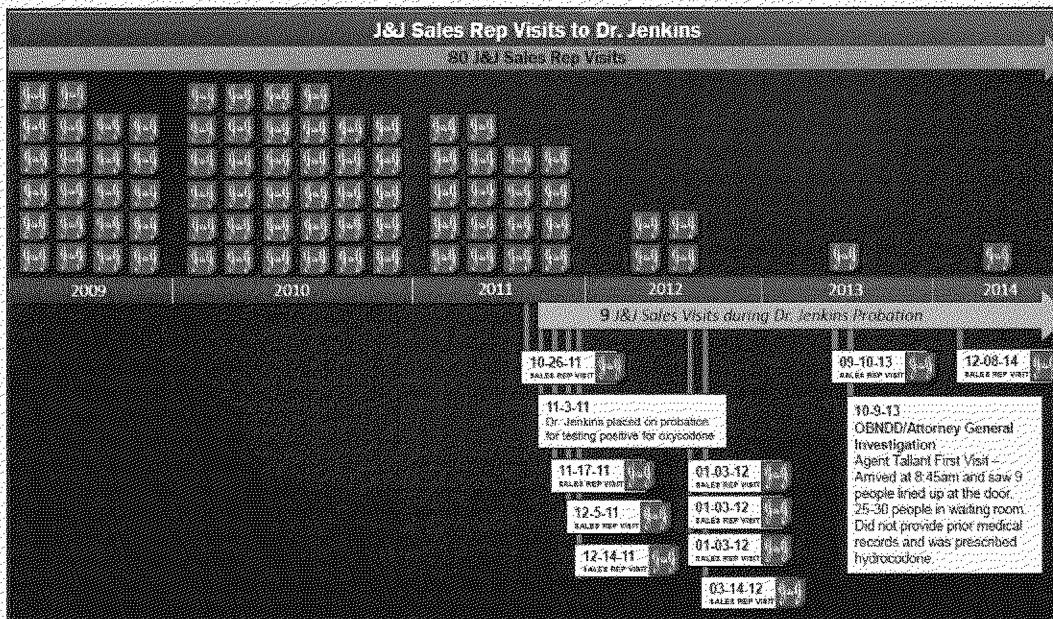
Ct. Ex. 123 (plotting data from S-2481 – S-2492); *see also* Trial Tr. (6/26/19 p.m., Commissioner White) at 89:18-90:25.

579. Prior to April 2010, Dr. George Howell, another physician at the Roland Pain Clinic and target of Defendants' sales efforts, "had minimal controlled substance exposure." Trial Tr. (6/26/19 p.m., Commissioner White) at 78:21-24; J-3921-A. Thereafter, his "monthly controlled substance percentage increased over 60 percent, issuing 254 total prescriptions." Trial Tr. (6/26/19 p.m., Commissioner White) at 78:21-24; J-3921-A. Defendants' sales representatives began calling on Dr. Howell on March 3, 2010, visiting him 27 times in 2010 and 2011, which the State illustrated at trial as follows:



Ct. Ex. 123 (plotting data from S-2481 – S-2492); Trial Tr. (6/26/19 p.m., Commissioner White) at 79:2-80:18.

580. Defendants' sales representatives made approximately 80 sales calls or visits to Dr. Harvey Jenkins, another physician Defendants identified at trial, between 2009 and 2014:



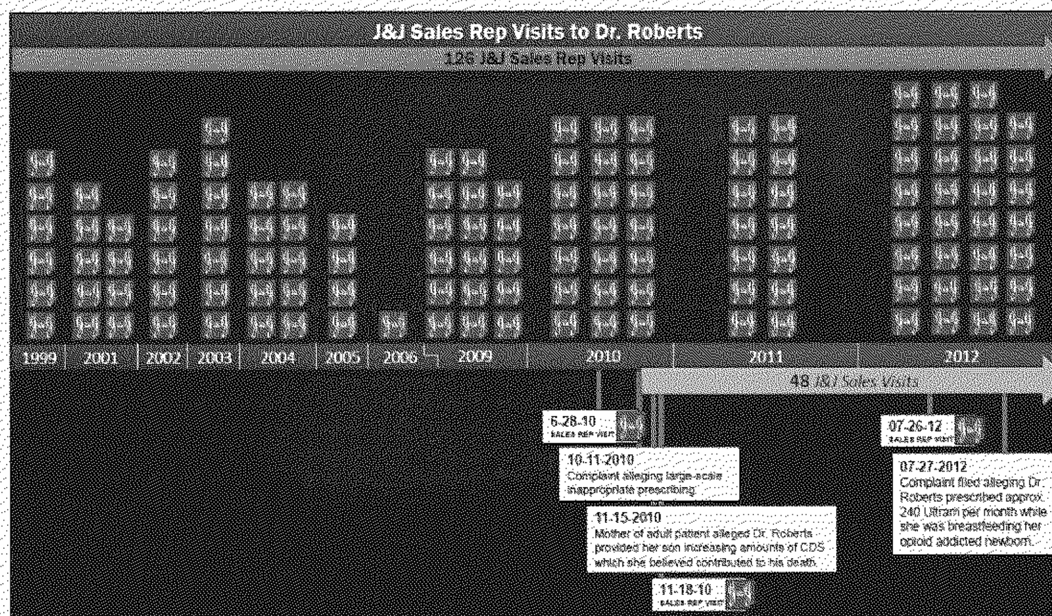
Ct. Ex. 123 (plotting data from S-2481 – S-2492); Trial Tr. (6/26/19 p.m., Commissioner White) at 88:10-89:9.

581. In 2012, employees for Defendants were targeting the highest OxyContin prescribers in Oklahoma as targets for Defendants' sales efforts in Oklahoma, including Dr. Harvey Jenkins. S-1147; *see also* Trial Tr. (6/3/19 a.m., J&J: Deem-Eshleman) at 34:06-40:09. As part of their strategy to target top OxyContin prescribers, Defendants assigned Ms. Diesselhorst and other Oklahoma sales representatives to call on Dr. Jenkins. *See, e.g.*, Trial Tr. (7/2/19 p.m., Diesselhorst) at 173:2-174:10, 198:19-204:1; S-1147, S-4497. Ms. Diesselhorst called on Dr. Jenkins over 60 times, brought him breakfast, lunch and snacks, and brought another Oklahoma doctor she called on, Dr. Moorad[53], to Dr.

[53] From 2009 through 2011, Ms. Diesselhorst called on Dr. Moorad close to 100 times, and Ms. Diesselhorst's call notes for these sales visits document a corresponding increase in Dr. Moorad's prescribing of Defendants' branded drug, Ultram ER. *See, e.g.*, Trial Tr. (7/2/19 p.m., Diesselhorst) at 195:14-200:21; S-4497.

Jenkins' office as a part of Defendants' speaker strategy. *See, e.g.*, Trial Tr. (7/2/19 p.m., Diesselhorst) at 200:1-204:1; S-4497. After a complaint was filed against Dr. Jenkins in September 2011, Ms. Diesselhorst and another of Defendants' sales representatives continued calling on Dr. Jenkins, sometimes twice in one day. *See* Trial Tr. (7/2/19 p.m., Diesselhorst) at 202:18-206:20; J-594; S-4497.

582. Similarly, Defendants' sales representatives visited Dr. Dennis Roberts, another physician Defendants focused on at trial, approximately 126 times between 1999 and 2012:



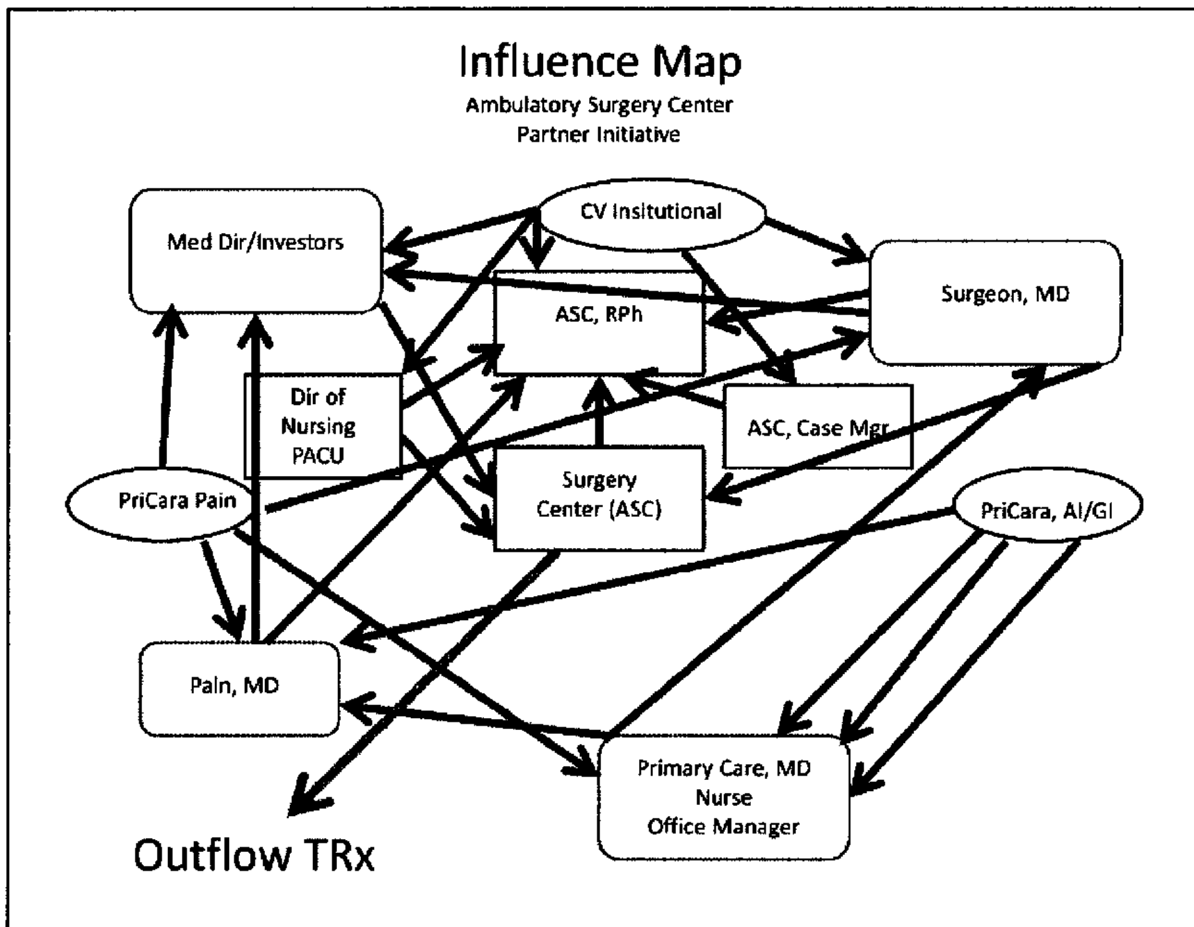
Ct. Ex. 123 (plotting data from S-2481 – S-2492); Trial Tr. (6/26/19 p.m., Commissioner White) at 87:13-88:9.

583. Ultimately, many, if not all, of the high-prescribing doctors, whose prescribing practices were investigated and whose patients, in some cases, died from opioid overdoses, that Defendants focused on at trial were the targets of prolonged marketing and

sales efforts by Defendants' Oklahoma opioid sales representatives. *See, e.g.*, Trial Tr. (7/2/19 p.m., Diesselhorst) at 195:14-196:14 (Dr. Moorad), 198:19-206:20 (Dr. Jenkins), 216:16-234:2 (Dr. Roberts), 236:23-239:15 (Dr. Alhaj), 239:16-241:20 (Dr. Kim), 241:23-243:18 (Dr. Nael), 246:9-247:24 (Dr. Pope), 248:1-249:20 (Dr. Moore); S-4497 (collection of Ms. Diesselhorst's call notes); *see also, e.g.*, J-2942-B; J-594; S-4053-A.

584. Defendants additionally targeted specific hospitals and other facilities with Defendants' deceptive marketing in Oklahoma.

585. For example, Defendants developed a "Partnering Initiative" with an overall objective to: "Drive outflow of Nucynta TRxs [total prescriptions] through select Oklahoma outpatient surgery centers":



S-1728; *see also* Trial Tr. (5/31/19 p.m., J&J: Deem-Eshleman) at 93:25-112:13.

586. Like Defendants' broader national influence map, *see* S-1161 at 10, Defendants' Oklahoma Partnering Initiative plans included an "Influence Map" that shows how to influence the relevant stakeholders to accomplish this objective and drive "Outflow TRx" in the select Oklahoma outpatient surgery centers. S-1728; *see also* Trial Tr. (5/31/19 p.m., J&J: Deem-Eshleman) at 93:25-112:13.

587. As part of this initiative to increase Nucynta prescriptions by targeting surgery centers in Oklahoma, Ms. Diesselhorst's call notes demonstrate that she called on physicians in one Oklahoma surgical center—the Oklahoma Center for Orthopedic and

Multispecialty Surgery—over approximately 600 times. *See* Trial Tr. (7/2/19 p.m., Diesselhorst) at 158:16-164:16; S-1161; S-1728; S-4497.

588. Defendants' employees sent emails discussing "two H3 accounts[54] within Oklahoma City that are **heavily** influenced by our team and are generating a significant amount of prescriptions every week." S-1346; *see also* Trial Tr. (5/31/19 p.m., J&J: Deem-Eshleman) at 113:01-122:21. These high-prescribing and highly-influenced accounts were headed up by Dr. Moorad—Defendants' "largest supporter and target (as well as a speaker) in the area." S-1346. This is the same Dr. Moorad, who Ms. Diesselhorst called on nearly 100 times and sent to speak with Dr. Jenkins. Trial Tr. (7/2/19 p.m., Diesselhorst) at 195:14-200:21; S-4497.

589. In emails among Defendants' employees in Oklahoma, an employee described the sales strategy for the "Tulsa Retail District." S-1730. "[W]e will change our thought process when we pull out of our driveways each morning...we will no longer think, 'I need to make 8 physician calls and 3 pharmacy calls' and we will start to think, 'I need to sell X number of Nucynta, Nucynta ER, Xarelto and Aciphex today in order to hit quota. Our days (and sales results) will truly become successful when we hit those daily totals and don't let each day end until we have achieved our daily totals." S-1730; *see also* Trial Tr. (5/31/19 p.m., J&J: Deem-Eshleman) at 125:10-136:17.

[54] An "H3 account" refers to an updated pharmacy associated with a hospital. *See* Trial Tr. (5/31/19 p.m., J&J: Deem-Eshleman) at 117:6-20.

590. Over the last two decades, Defendants flooded the Oklahoma medical community with Defendants' false, misleading and deceptive marketing messages designed to increase prescriptions of opioids in the State.

591. Defendants aggressively promoted opioids in unbranded campaigns, funded groups and third parties that promoted opioids and adopted, ratified and disseminated these statements as Defendants' own, collaborated with groups and other third parties to knock down barriers to opioid prescribing, deceptively and misleadingly promoted their own branded opioids and opioids generally through sales representatives and other branded and unbranded marketing, continued aggressive promotion of opioids in light of the rising opioid addiction crisis, and encouraged doctors to prescribe opioids longer and for unwarranted conditions around the country and in Oklahoma in particular. *See, e.g.*, Trial Tr. (6/13/19 p.m., Kolodny) at 17:2-23:13.

G. Opioid Sales, Prescriptions, Addiction and Overdose Deaths Have Risen Exponentially and in Lock-Step Since the Late 1990s

592. Since the late 1990s, opioid sales and prescriptions have skyrocketed across the country and in Oklahoma in particular. As rates of opioids sales and prescriptions have risen exponentially across the nation and in Oklahoma specifically, so have the disastrous consequences of opioid use, including for example, opioid addiction and overdose death.

593. After Defendants re-launched Duragesic for chronic non-cancer pain and started the multifaceted marketing campaign in the 1990s, the prescribing of opioids rose annually for several years in Oklahoma. Trial Tr. (6/13/19 p.m., Kolodny) at 16:15-25.

594. Compared to the rest of the country, Oklahoma is one of the hardest hit states in the U.S. by the prescription opioid crisis based on opioid overdose deaths and opioid prescribing. Trial Tr. (6/11/19 a.m., Kolodny) at 94:04-10.

595. The Oklahoma State Department of Health ("OSDH") created and maintains a Fatal Unintentional Poisoning Surveillance System. Trial Tr. (6/7/19 a.m., Nguyen) at 52:15-54:16.[55] The data is taken from medical examiner reports from the OCME for all non-natural deaths in the State. *Id.* OSDH identifies all deaths of Oklahoma residents with a manner of accident and a type of poisoning listed in the cause of death. *Id.*[56]

596. Dr. Eric Pfiefer is currently the Chief Medical Officer of the State of Oklahoma. *See* Trial Tr. (6/18/19 a.m., Pfeifer) at 92:5-6. Dr. Pfiefer is the "[e]xecutive head of the agency" which "exists because of state statute to investigate certain sorts of deaths and report on cause and manner of death." *Id.* at 92:14-18. Dr. Pfiefer is "a practicing forensic pathologist" and "involved in the autopsy practice." *Id.* at 92:14-18. The Office of

[55] Claire Nguyen has worked for the OSDH as an epidemiologist for nearly ten years. Trial Tr. (6/7/19 a.m., Nguyen) at 42:18-20; 43:18-52:14. Ms. Nguyen is currently an administrative program manager with the Injury Prevention Service ("IPS"), the lead injury and violence prevention program for the State, and a division of OSDH. *Id.* at 41:16-18; 42:1-4. As administrative program manager, Ms. Nguyen oversees all areas of unintentional injury within the IPS. She supervises two epidemiologists, who mainly focus on drug overdose, and two project coordinators focusing on child injury prevention, older adult falls and unintentional poisoning prevention. *Id.* at 42:7-14. Ms. Nguyen oversees all data collection, analysis, quality assurance, reports, review and presentations or other material related to unintentional injuries in Oklahoma. *Id.* at 42:15-17. Ms. Nguyen has a BS in Mathematics and an MS in Biostatistics from the University of Oklahoma. *Id.* at 42:21-25.

[56] Oklahoma is one of only 16 states that has a centralized medical examiner system. Trial Tr. (6/7/19 a.m., Nguyen) at 54:19-55:7. All information goes through one of two offices within the State, Oklahoma City or Tulsa, and the OCME is staffed by board-certified pathologists and toxicologists. *Id.* This type of system allows for consistency of data collection over time and all cases are reviewed by medical professionals. *Id.*

the Chief Medical Examiner of Oklahoma ("OCME") "is charged under law with investigating certain sorts of deaths, unexplained deaths, deaths due to violent means, deaths due to drugs or poisons, unattended deaths, deaths of persons involved in fires, deaths of children that are unexplained, and a few others." *Id.* at 97:01-6. The agency then "issue[s] a report of those findings that [is] used by other agencies." *Id.* at 97:15-16. Dr. Pfiefer and his office investigate drug overdoses in the State of Oklahoma, including overdoses from prescription opioids. *Id.* at 98:05-17. The office has two forensic toxicologists with over 40 years of experience combined. *Id.* at 104:13-20.

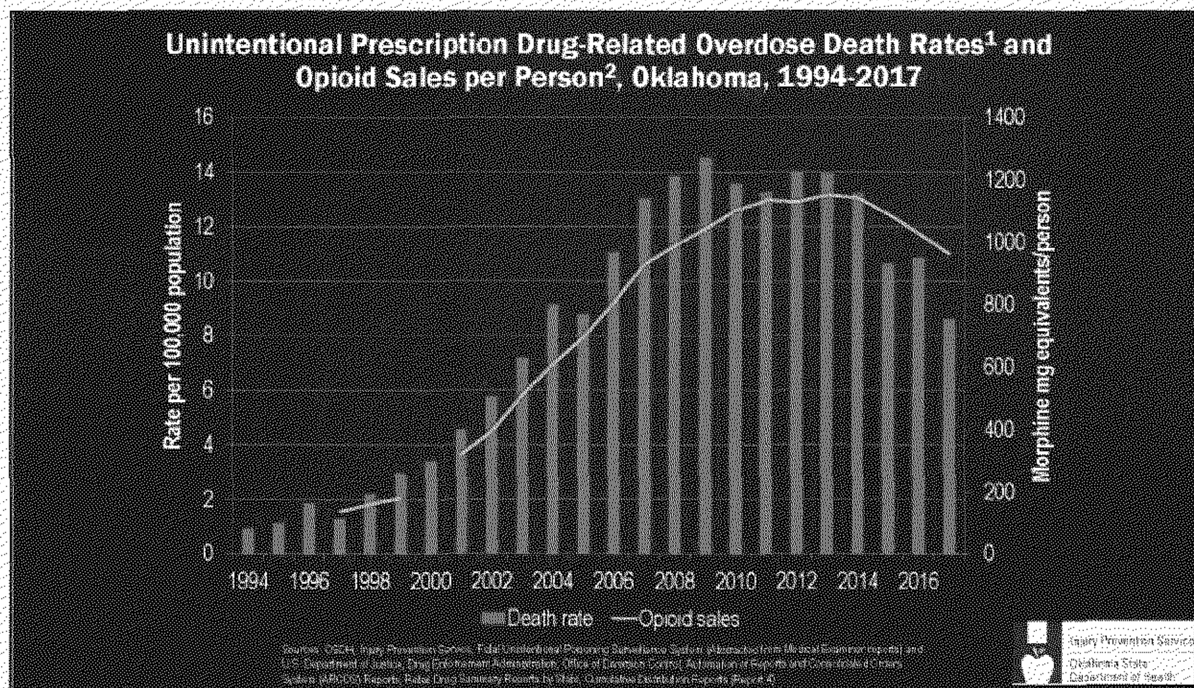
597. The OCME can "determine what kinds of opioids are involved in a particular person's death" to "a reasonable medical certainty" and by "a preponderance of the evidence." Trial Tr. (6/18/19 p.m., Pfeifer) at 14:25-17:19. When a substance is listed in the OCME's reports, the OCME has concluded that particular substance contributed as a cause of the person's death. Trial Tr. (6/18/19 p.m., Pfeifer) at 17:6-10. The OCME's death data is reliable. *See, e.g.*, Trial Tr. (6/7/19 a.m., Nguyen) at 59:11-18.

598. However, in Oklahoma, unintentional prescription opioid involved overdose deaths may often be underreported because, for example, the data does not capture individuals who died in motor vehicle accidents while under the influence of prescription opioids. *See, e.g.*, Trial Tr. (6/7/19 a.m., Nguyen) at 56:25-57:17. Deaths also frequently go uncounted for people over the age of 65 because their deaths are often reported as being a result of natural causes. *See* Trial Tr. (6/13/19 a.m., Kolodny) at 110:07-113:12. The OCME takes a conservative approach in determining whether a particular drug caused or contributed to someone's death. *See* Trial Tr. (6/18/19 p.m., Pfeifer) at 7:20-8:10. "[I]f the

level is iffy or on the borderline, [the OCME] err[s] on the side of conservatism about the importance of that drug and its concentration." *Id.* at 7:20-22. The OCME's toxicologists take multiple samples to minimize bias and ensure that its results are reliable. *Id.* at 8:11-9:04.

599. The OCME has "seen a dramatic rise in the number of people, Oklahomans, who died from opioids since the mid [19]90s." Trial Tr. (6/18/19 p.m., Pfeifer) at 99:21-25. This "tragedy" has caused Oklahoma's Chief Medical Officer, Dr. Pfeifer, to anticipate at least one opioid related overdose death "every single day" that he goes to work. *See* Trial Tr. (6/18/19 p.m., Pfeifer) at 100:6-11.

600. The State illustrated what the data has shown through a chart prepared by the OSDH, which was submitted to the Court as Court Exhibit 41:



601. Oxycodone, hydrocodone, morphine, and fentanyl consumption all began increasing in the United States in or around 1996. *See* Trial Tr. (6/11/19 a.m., Kolodny) at 95:23-96:20; S-906.

602. Opioid prescribing in Oklahoma was especially aggressive, compared to national averages. Trial Tr. (6/11/19 p.m., Kolodny) at 136:18-20.

603. From 1997 to 2013, there was a 9-fold increase in the rate of MMEs distributed per Oklahoman for combined sales of oxycodone, hydromorphone, hydrocodone, meperidine, methadone, morphine, fentanyl and codeine. Trial Tr. (6/7/19 a.m., Nguyen) at 83:5-11; 86:13-87:5.[57]

604. From 1994 to 1996, six of the most common prescription drugs involved in overdose fatalities were prescription opioids including, methadone, hydrocodone, oxycodone, morphine, propoxyphene, and fentanyl. Trial Tr. (6/7/19 a.m., Nguyen) at 72:20-25, 74:11-17.[58]

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[57] The OSDH uses MMEs prescribed in Oklahoma to represent the amount of prescription opioids available in the State to account for the fact that different prescription opioids have different potencies. Trial Tr. (6/7/19 a.m., Nguyen) at 99:13-100:8. Not all prescription opioid tablets are equal. And, prescription opioids do not just include pills. *Id.* Prescription opioids are also sold in other forms such as liquids, patches, lozenges and lollipops. *Id.* To account for these differences, the OSDH sums up all of the MMEs for all of the prescription opioids and then uses a common prescription opioid, such as hydrocodone, as an equivalence for purposes of simplifying the data for the public. *Id.*

[58] Dr. Piercefield, who performed the initial analysis of these data for the years 1994 to 2006, reviewed all medical examiner reports from 1994-2006 of Oklahoma residents who died of a poisoning with at least one over the counter or prescription drug listed in the cause of death. Trial Tr. (6/7/19 a.m., Nguyen) at 68:11-22; 70:10-23. Dr. Piercefield also reviewed data from the DEA's ARCOS system, which that are supplied by manufacturers and distributors on retail sales, or to retail sales outlets, from 1997-2006. *Id.* at 71:22-72:12. For her analysis, Dr. Piercefield also used morphine milligram equivalence ("MME") to calculate opioid grams sold per 100,000 population. Trial Tr. (6/7/19 a.m., Nguyen) at 74:18-75:22. Dr. Piercefield used morphine as the standard and applied the different conversion factors for each of the 8 common prescription opioids

605. From 1994 to 2006, the number of fatal overdoses increased for all of the above-mentioned prescription opioids. Trial Tr. (6/7/19 a.m., Nguyen) at 73:1-20;74:4-10; 76:6-18, Ct. Ex. 41 at Slide 1 (illustrating data). There was a parallel increase in prescription opioid sales for each of these opioids from 1997-2006. *Id.* The increase in deaths in Oklahoma paralleled the increase in prescribing of opioids and as opioid prescribing decreased around 2014, deaths decreased as well. Trial Tr. (6/13/19 p.m., Kolodny) at 13:17-25.

606. From 1994 to 2006, unintentional opioid overdose rates increased seven-fold, while prescription opioid sales increased four-fold. Trial Tr. (6/7/19 a.m., Nguyen) at 76:12-18. As the supply of prescription opioids increased, the number of people dying from unintentional overdose increased:

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from a peer reviewed article by Dr. Len Paulozzi at the CDC to account for the different strengths of different prescription opioids. *Id.*

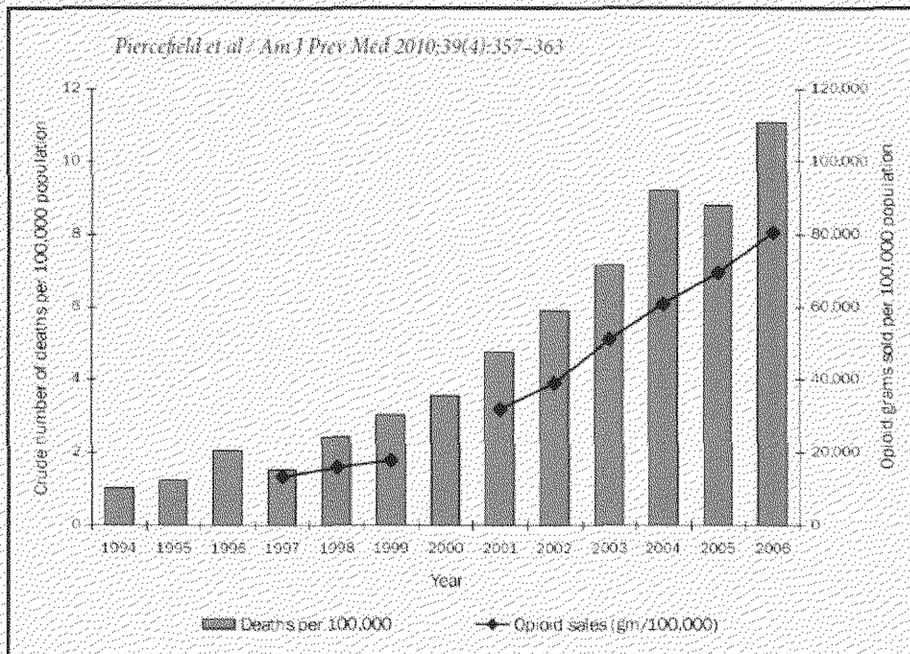


Figure 1. Unintentional medication-related overdose death rates and total sales of prescription opioids by year, Oklahoma, 1994–2006

Table 2. Individual substances involved in unintentional medication overdose deaths: Oklahoma, 1994–2006, *n* (%)

Substance	Overall[a]	1994–1996[b]	2004–2006[c]
Methadone	653 (30.9)	21 (16.0)	377 (36.6)
Hydrocodone	407 (19.3)	9 (6.9)	220 (21.4)
Alprazolam	320 (15.2)	8 (6.1)	219 (21.3)
Oxycodone	311 (14.7)	1 (0.8)	174 (16.9)
Morphine	263 (12.5)	31 (23.7)	101 (9.8)
Alcohol	260 (12.3)	25 (19.1)	115 (11.2)
Propoxyphene	140 (6.6)	14 (10.7)	46 (4.5)
Fentanyl	124 (5.9)	2 (1.5)	78 (7.6)
Carisoprodol	97 (4.6)	8 (6.1)	40 (3.9)
Diazepam	94 (4.5)	8 (6.1)	37 (3.6)
Amitriptyline	87 (4.1)	8 (6.1)	33 (3.2)
Cocaine	85 (4.0)	10 (7.6)	45 (4.4)
Acetaminophen	76 (3.6)	8 (6.1)	33 (3.2)
Cyclobenzaprine	74 (3.5)	0	43 (4.2)
Methamphetamine	72 (3.4)	4 (3.1)	43 (4.2)
Olanzapine	37 (1.8)	0	16 (1.6)
Codeine	34 (1.6)	2 (1.5)	15 (1.5)
Other substance[d]	609 (28.8)	58 (44.3)	229 (22.3)

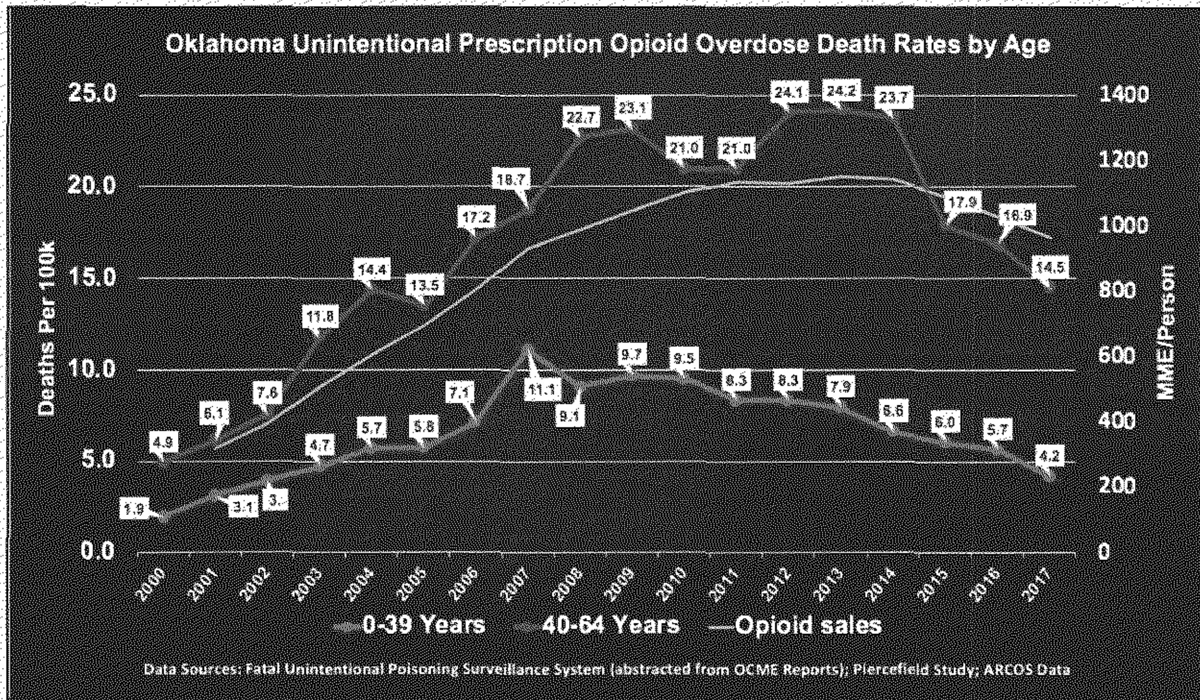
Ct. Ex. 41 at Slide 1 (depicting data); Trial Tr. (6/7/19 a.m., Nguyen) at 76:12-18.

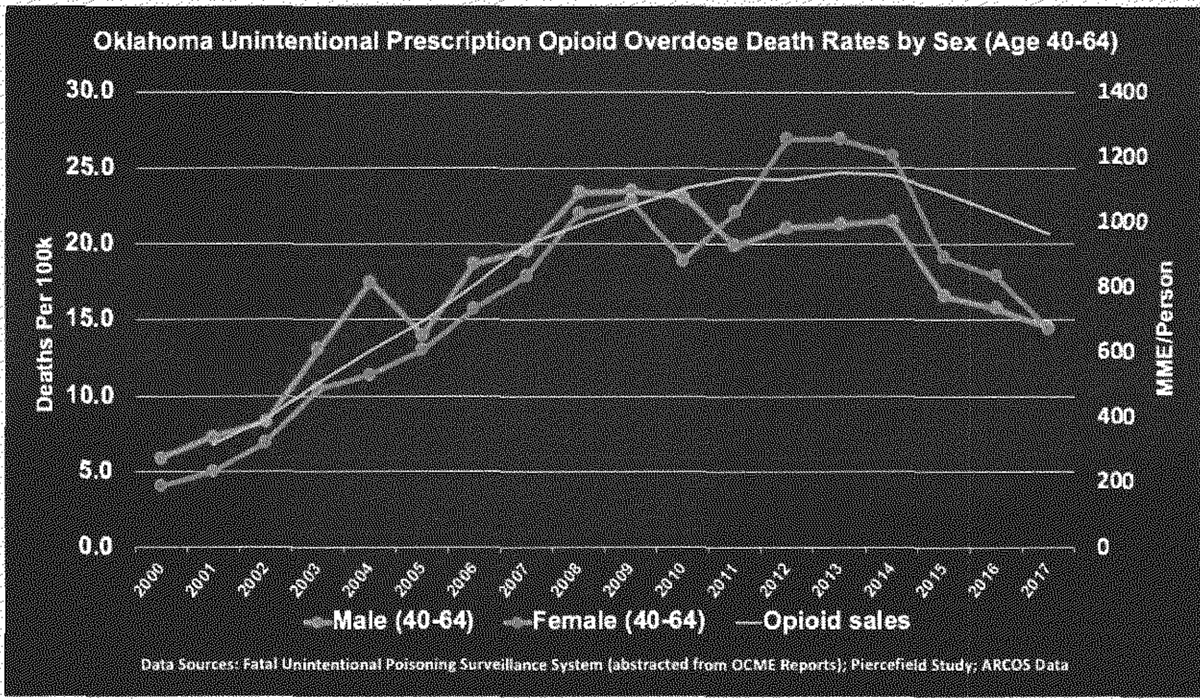
607. From 1994 to 2006, adults aged 35-54 had the highest unintentional overdose death rates of any age group. Trial Tr. (6/7/19 a.m., Nguyen) at 77:1-13. Men had higher death rates than women but the rates for women increased more significantly over time than for men. *Id.* White Oklahomans had much higher rates of unintentional medication related overdose deaths than other racial groups. *Id.* Urban counties had higher rates of medication related overdose but increases were highest for rural counties. *Id.*

608. From 1994 to 2006, there were 2,122 unintentional medication related overdose deaths, and 83% of these deaths involved prescription opioids. Trial Tr. (6/7/19 a.m., Nguyen) at 76:19-25.

609. From 2007 to 2012, unintentional prescription overdose deaths increased. Trial Tr. (6/7/19 a.m., Nguyen) at 80:17-19. 69% of unintentional poisoning deaths during this time involved at least one prescription opioid. *Id.* at 81:3-5. The most common prescription opioids involved in unintentional poisoning deaths from 2007 to 2012 were methadone, morphine, hydrocodone, oxycodone and fentanyl. *Id.* at 81:6-10.

610. From 2007-2012, adults aged 35-54 had the highest overdose death rates, particularly women over age 45 (a group Defendants specifically targeted):





Ct. Ex. 41 at slides 14-15 (illustrating data); Trial Tr. (6/7/19 a.m., Nguyen) at 81:18-23.

611. From 2007 to 2012, 67 percent of unintentional poisoning deaths involving children under the age of 18 involved a prescription opioid. Trial Tr. (6/7/19 a.m., Nguyen) at 81:24-82:4.

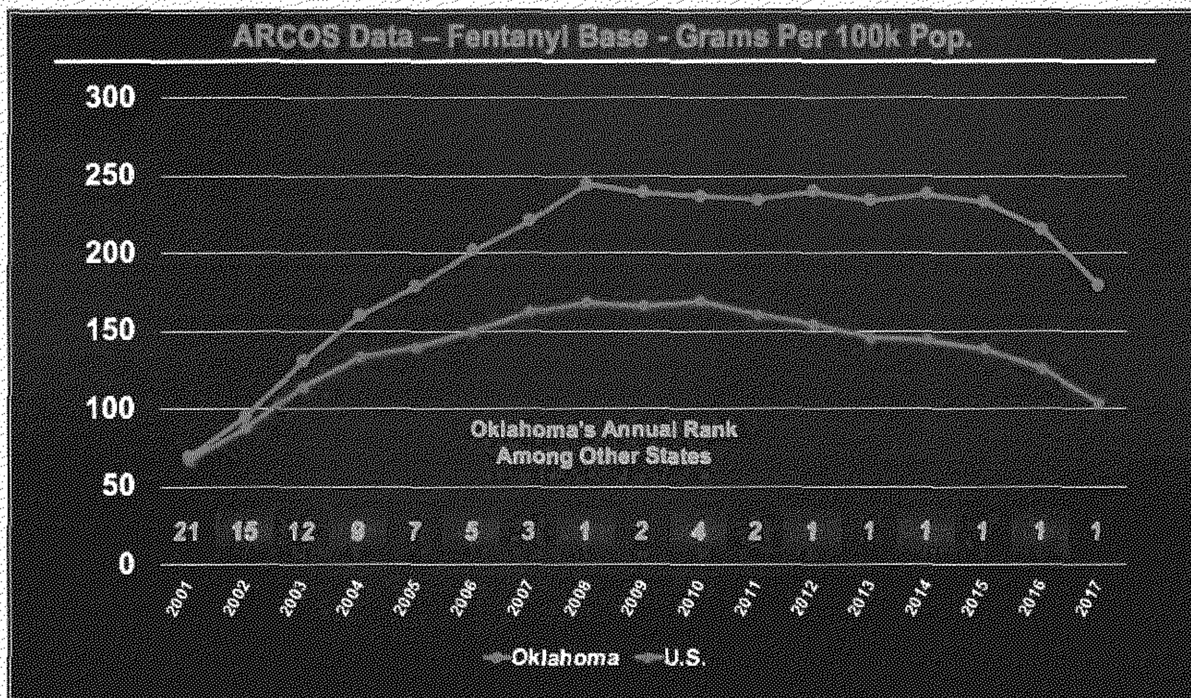
612. In 2012, Oklahoma ranked 5th in the nation for unintentional poisoning deaths and 5th in the nation for the number of opioid prescriptions per 100 people. Trial Tr. (6/7/19 a.m., Nguyen) at 82:13-15; 83:22-25.

613. From 2007-2012, 2,677 Oklahomans died from unintentional prescription opioid-involved deaths. Trial Tr. (6/7/19 a.m., Nguyen) at 82:16-18.

614. From 2007-2012, the prescription opioid overdose crisis in Oklahoma rose to the level of an epidemic. Trial Tr. (6/7/19 a.m., Nguyen) at 82:19-83:1.

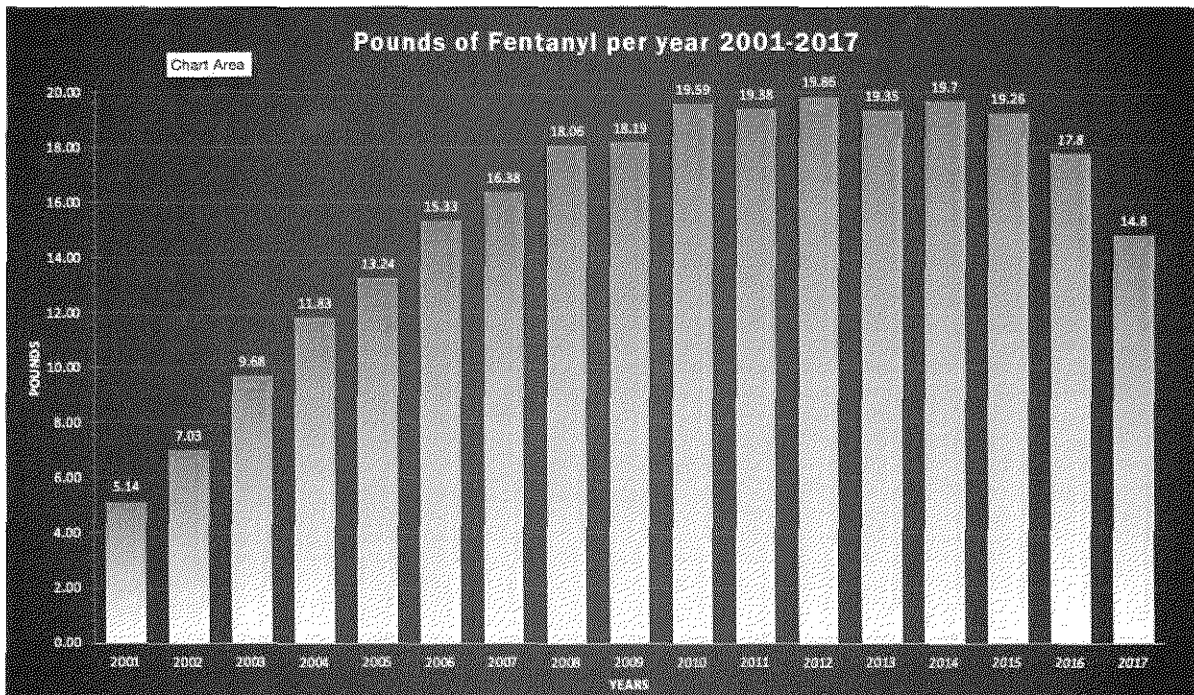
615. From 2007-2012, prescription opioid sales in Oklahoma continued to climb at significantly increasing rates. There was a more than 40 percent increase in sales of prescription morphine, oxycodone and hydrocodone, and a 17 percent increase in sales of prescription fentanyl. Trial Tr. (6/7/19 a.m., Nguyen) at 83:14-21.

616. In Oklahoma, there was an 11-fold increase in prescription fentanyl sales from 1997 to 2010. Trial Tr. (6/7/19 a.m., Nguyen) at 88:21-89:11. Oklahoma's prescription fentanyl sales rate far exceeded those of the rest of the country. *Id.* For the last 6 years, Oklahoma ranked first in the nation for prescription fentanyl sales per capita. *Id.* From 2006 forward, Oklahoma was ranked in the top 5 in the nation for prescription fentanyl sales per capita every year:



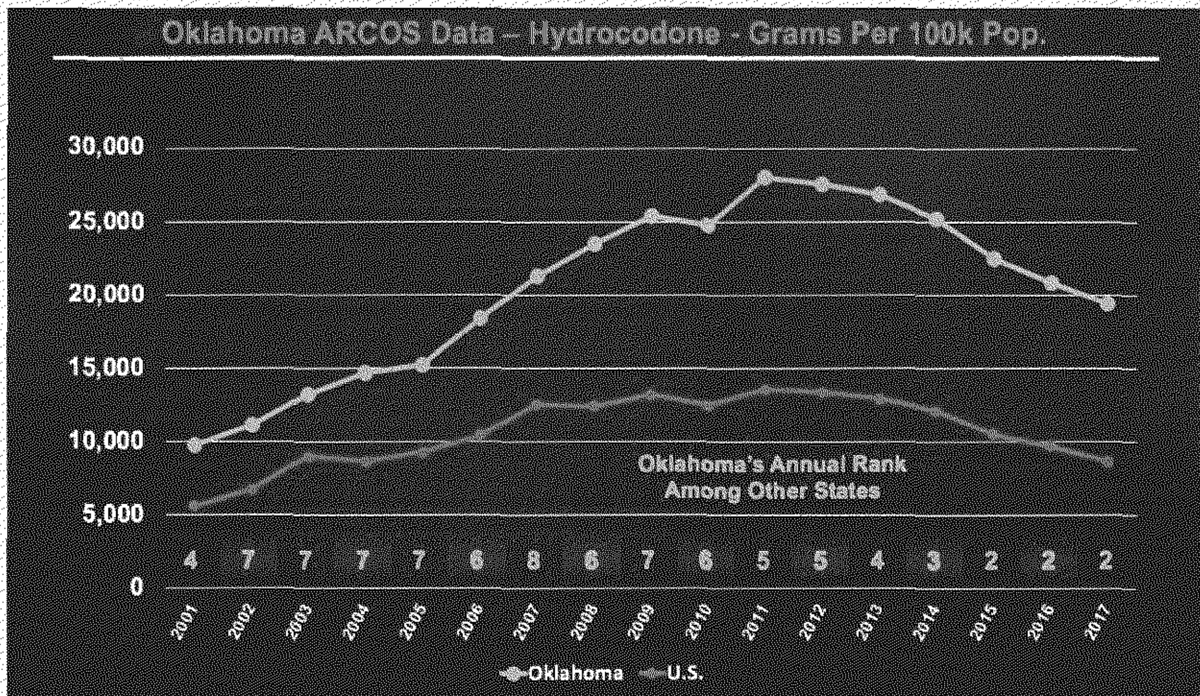
Ct. Ex. 41 at slide 5 (plotting data); *see also* Trial Tr. (6/7/19 a.m., Nguyen) at 88:21-89:11.

617. The pounds of fentanyl prescribed in Oklahoma went up after the year 2000 and continued to increase. Trial Tr. (6/13/19 p.m., Kolodny) at 12:14-16. There were 5 pounds of prescription fentanyl sold in 2001 in Oklahoma. Trial Tr. (6/7/19 a.m., Nguyen) at 90:5-11. That increased dramatically to 19 pounds of prescription fentanyl sold in Oklahoma in 2010. *Id.* From 2010 to 2015, there were more than 19 pounds of prescription fentanyl sold in Oklahoma each year:



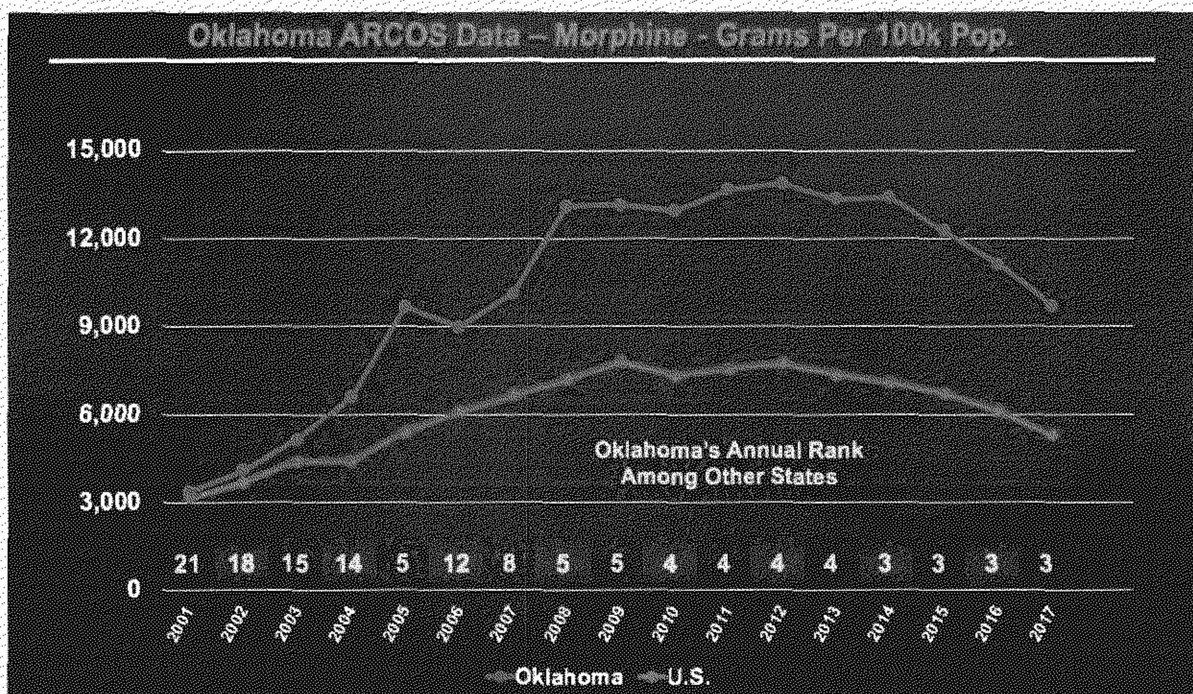
Ct. Ex. 41 at slide 6 (plotting data); *see also* Trial Tr. (6/7/19 a.m., Nguyen) at 90:5-11.

618. In Oklahoma, there was a significant increase in grams of prescription hydrocodone sold per 100,000 population from 2001 to 2017. Trial Tr. (6/7/19 a.m., Nguyen) at 87:13-23. Oklahoma's prescription hydrocodone sales rates were nearly doubled those of the rest of the country. *Id.* For the last 5 years, Oklahoma ranked in the top 4 for sales of prescription hydrocodone per capita:



Ct. Ex. 41 at slide 3 (plotting data); *see also* Trial Tr. (6/7/19 a.m., Nguyen) at 87:13-23

619. In Oklahoma, there was a significant increase in grams of prescription morphine sold per 100,000 population from 2001 to 2017. Trial Tr. (6/7/19 a.m., Nguyen) at 87:24-88:20. Oklahoma's prescription morphine sales increased seven-fold from 1997-2012. *Id.* After 2005, Oklahoma had a much higher rate of prescription morphine sales than the United States. *Id.* For the last 10 years, Oklahoma ranked in the top 10 for sales of prescription hydrocodone in the nation per capita:



Ct. Ex. 41 at slide 4 (plotting data); *see also* Trial Tr. (6/7/19 a.m., Nguyen) at 87:24-88:20.

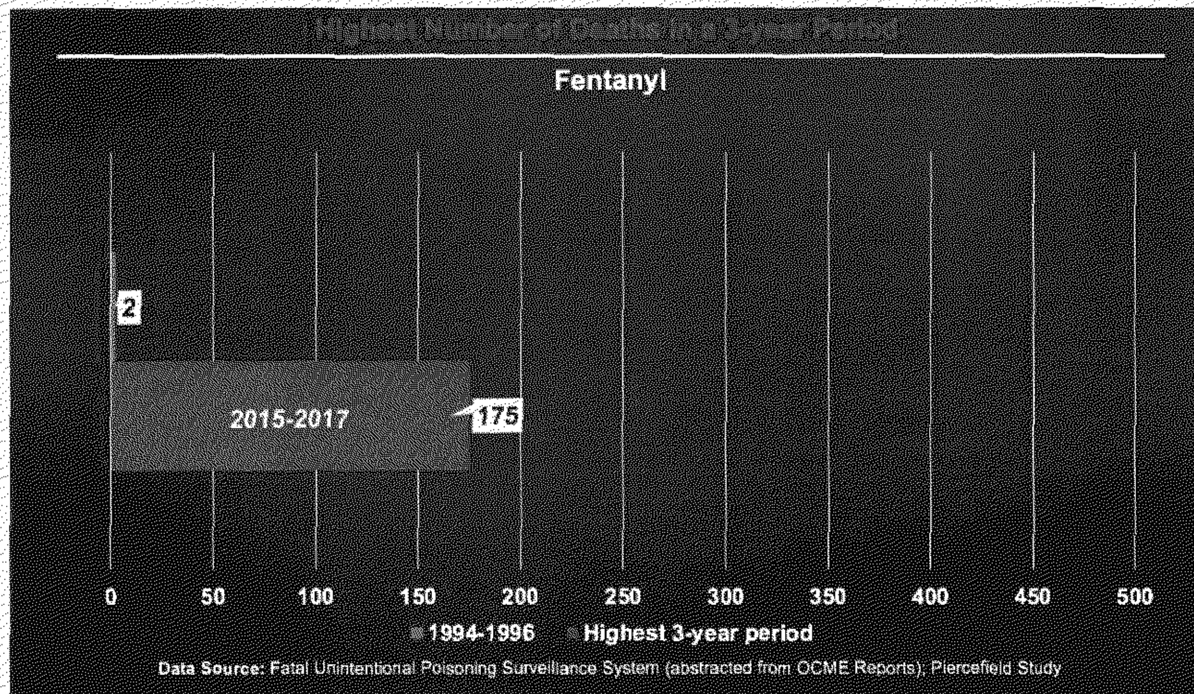
620. According to CDC data, from 2006 through 2017, Oklahoma ranked between 4th and 8th in the Nation for opioid prescriptions per capita. Trial Tr. (6/7/19 a.m., Nguyen) at 90:12-21.

621. According to OBN, in 2017, 479 opioid prescriptions were dispensed every hour in Oklahoma. J-2951 at 16.

622. From 1994 to 2009, there was a nearly 15-fold increase in the rate of unintentional prescription drug related overdose deaths. Trial Tr. (6/7/19 a.m., Nguyen) at 91:1-8; *see also* Ct. Ex. 41 at Slide 7 (depicting data).

623. Between 1994 and 1996, there were only 2 unintentional overdose deaths involving fentanyl. Trial Tr. (6/7/19 a.m., Nguyen) at 92:18-25. In contrast, from 2015 to

2017, the highest three-year period for fentanyl involved unintentional poisonings, there were 175 unintentional fentanyl-involved overdose deaths:



Ct. Ex. 41 at slide 11 (depicting data); Trial Tr. (6/7/19 a.m., Nguyen) at 92:18-25.[59]

624. Between 1994 and 1996, there was only 1 unintentional overdose deaths involving oxycodone. Trial Tr. (6/7/19 a.m., Nguyen) at 93:1-6. In contrast, from 2012 to 2014, the highest three-year period for oxycodone involved unintentional poisonings, there were 484 unintentional oxycodone-involved overdose deaths:

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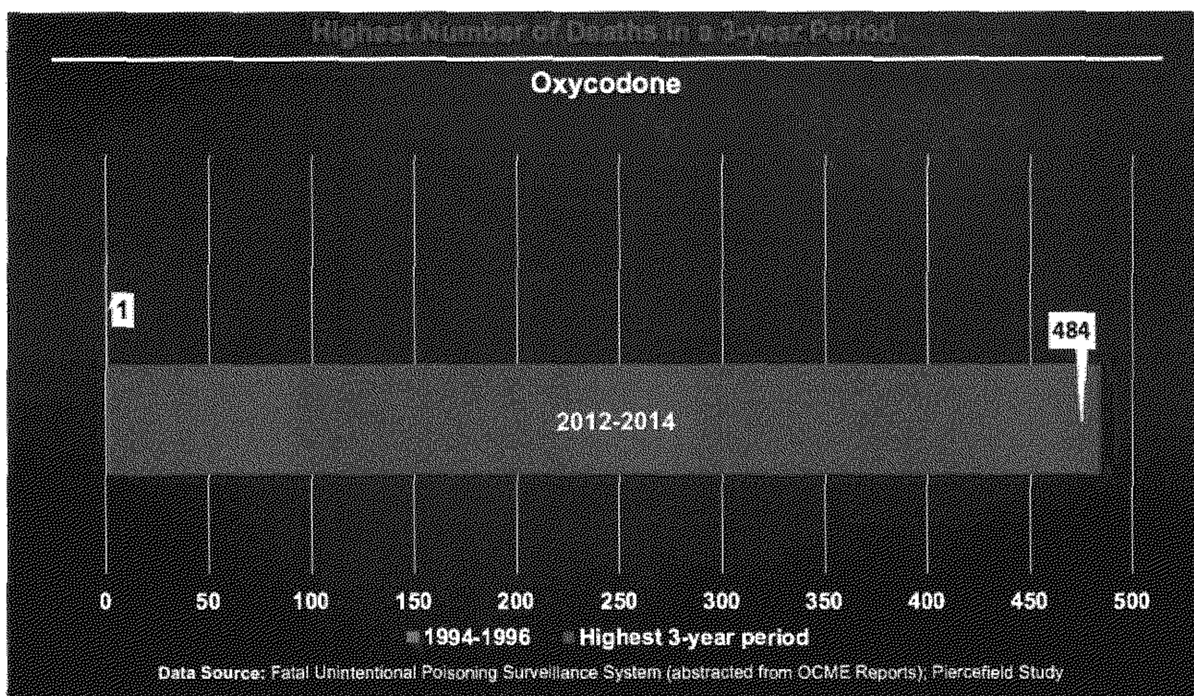
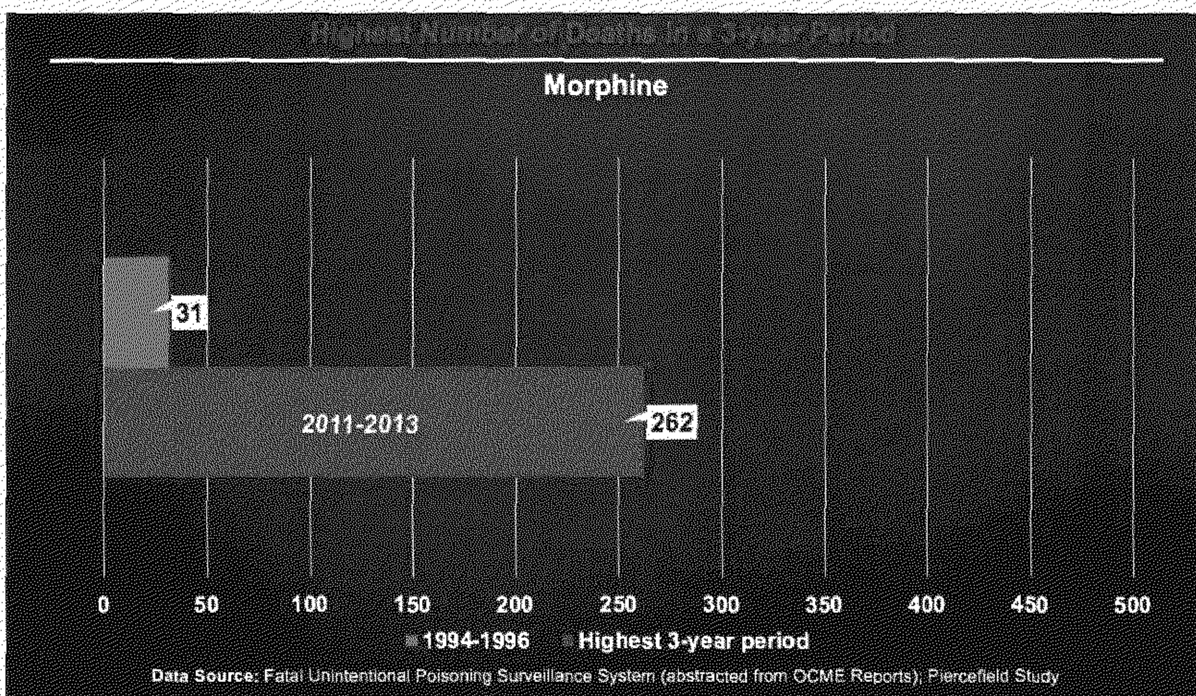
[59] Unintentional overdose deaths where the cause of death is fentanyl are coded as fentanyl prescription involved unintentional overdose deaths. Trial Tr. (6/7/19 a.m., Nguyen) at 61:22-62:20; 88:21-89:11. Fentanyl analog involved unintentional overdose deaths, however, are reported as illicit drugs in the Oklahoma Fatal Unintentional Poisoning Surveillance System. Trial Tr. (6/7/19 a.m., Nguyen) at 62:1-4; 80:9-13. OSDH's epidemiologist and the Oklahoma Chief Medical Examiner concluded this is a reasonable assumption because Oklahoma is ranked very high in prescription fentanyl sales. *Id.*



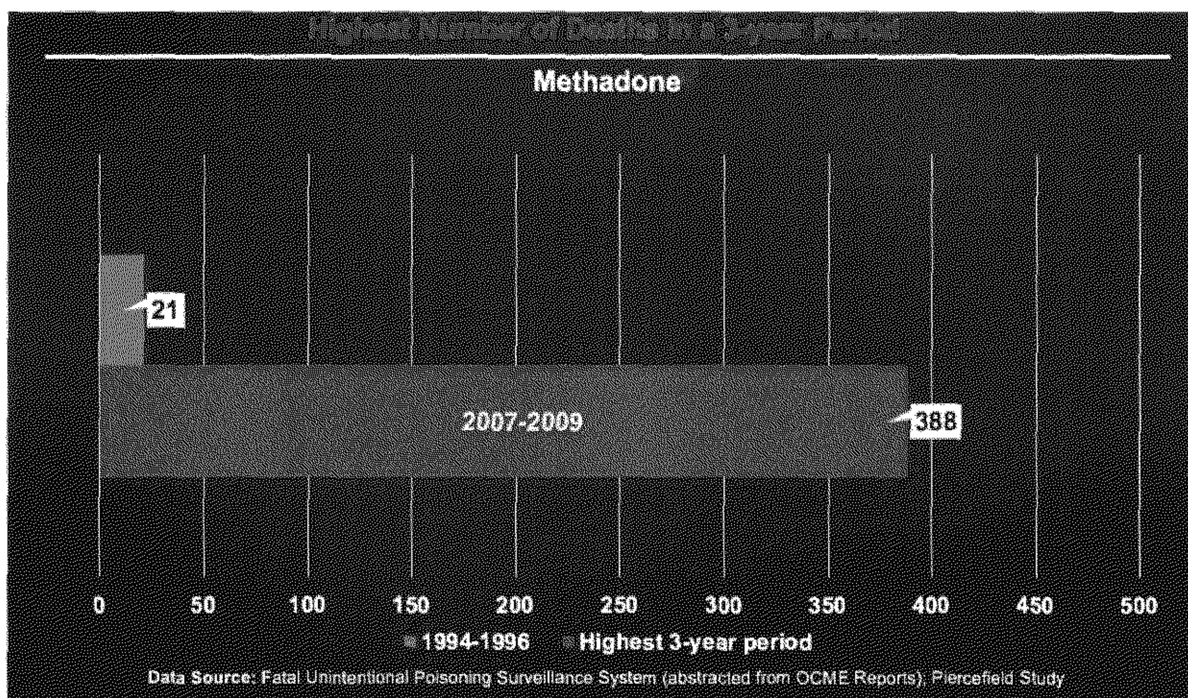
Ct. Ex. 41 at slide 12 (plotting data); Trial Tr. (6/7/19 a.m., Nguyen) at 93:1-6.

625. Between 1994 and 1996, there were only 31 unintentional overdose deaths involving morphine. Trial Tr. (6/7/19 a.m., Nguyen) at 91:17-24. In contrast, from 2011 to 2013, the highest three-year period for morphine involved unintentional poisonings, there were 262 unintentional morphine-involved overdose deaths:



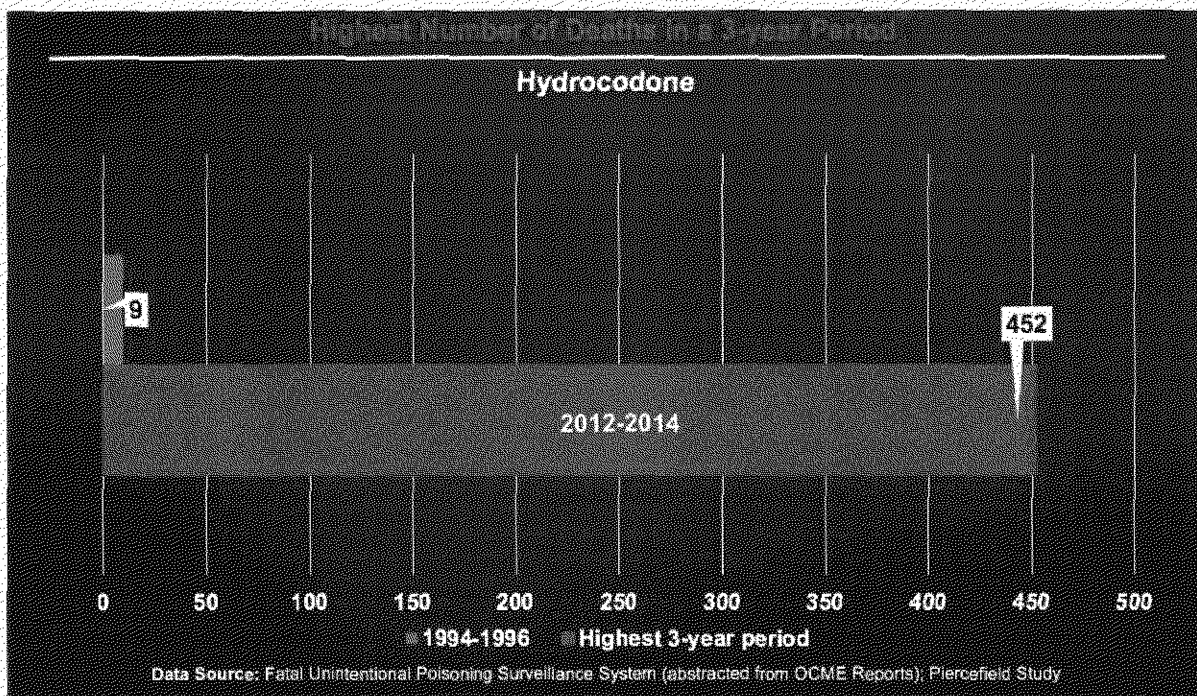
Ct. Ex. 41 at slide 8 (plotting data); Trial Tr. (6/7/19 a.m., Nguyen) at 91:17-24.

626. Between 1994 and 1996, there were only 21 unintentional overdose deaths involving methadone. Trial Tr. (6/7/19 a.m., Nguyen) at 91:25-92:8. In contrast, from 2007 to 2009, the highest three-year period for methadone involved unintentional poisonings, there were 388 unintentional methadone-involved overdose deaths:



Ct. Ex. 41 at slide 9 (plotting data); Trial Tr. (6/7/19 a.m., Nguyen) at 91:25-92:8.

627. Between 1994 and 1996, there were only 9 unintentional overdose deaths involving hydrocodone. Trial Tr. (6/7/19 a.m., Nguyen) at 92:9-17. In contrast, from 2012 to 2014, the highest three-year period for hydrocodone involved unintentional poisonings, there were 452 unintentional hydrocodone-involved overdose deaths:



Ct. Ex. 41 at slide 10 (plotting data); Trial Tr. (6/7/19 a.m., Nguyen) at 92:9-17.

628. By no later than 2004, in the State of Oklahoma, there were "a large number of physicians who had been convinced that opioids needed to be prescribed for untreated pain and that they carried a low risk of abuse." Trial Tr. (6/25/19 p.m., Commissioner White) at 73:22-25.

629. Unintentional prescription opioid overdose death rates per 100,000 population for children and adults age 0 to 39 and adults aged 40 to 64 increased from 2000 to 2017. Trial Tr. (6/7/19 a.m., Nguyen) at 94:14-95:3; Ct. Ex. 41, Slide 14 (illustrating data). The unintentional prescription opioid overdose death rates are much higher for the 40-64 year old age group. *Id.* For both age groups, the prescription opioid sales increased in parallel with the unintentional prescription opioid overdose death rates. *Id.*

630. The unintentional prescription opioid overdose death rate for males and females in the 40-64 age group increased dramatically from 2000 to 2017. Trial Tr. (6/7/19 a.m., Nguyen) at 95:4-21; Ct. Ex. 41, Slide 15 (depicting data). After 2011, females had a higher prescription opioid overdose death rate than males in the 40-64 age group. *Id.* As the death rates for men and women in the 40-64 age group increased, prescription opioid sales increased. *Id.* As prescription opioid sales began to decrease, there was a parallel decrease in the overdose death rates for males and females in this age group. *Id.*

631. From 2000 to 2017, more than 6,100 Oklahomans died from an unintentional prescription opioid overdose. Trial Tr. (6/7/19 a.m., Nguyen) at 95:22-25.

632. From 2000 to 2017, there were 139,359 years of potential life lost from unintentional prescription opioid overdose deaths. Trial Tr. (6/7/19 a.m., Nguyen) at 96:6-22. That is the equivalent of more than 2,000 full lifetimes of adults Oklahomans aged 65. *Id.*

633. At the peak of the prescription opioid overdose epidemic in Oklahoma, from 2007 to 2014, there were more than 80,000 years of potential life lost, more than potential years of life lost due to diabetes, stroke, influenza and pneumonia combined during that same time period. Trial Tr. (6/7/19 a.m., Nguyen) at 97:1-5.

634. Between 2013 and 2017, on average 32 Oklahomans died every month from unintentional prescription opioid overdose. Trial Tr. (6/7/19 a.m., Nguyen) at 105:19-23; *see also* S-3957.

635. From 2012 to 2016, 6 of the 10 most common substances involved in Cleveland County unintentional overdose deaths were opioids. Trial Tr. (6/7/19 a.m.,

Nguyen) at 99:8-100:12; S-3956. In 2017, enough prescription opioids were dispensed to Cleveland County residents for every adult to have the equivalent of 135 hydrocodone 10-milligram tablets. *Id.*

636. In Stephens County, five of the top 9 substances involved in unintentional overdose death were prescription opioids. Trial Tr. (6/7/19 a.m., Nguyen) at 100:13-21; S-3957. In 2017, enough prescription opioids were dispensed to Stephens County residents for every adult to have the equivalent of 241 hydrocodone 10-milligram tablets. *Id.*

637. Oklahoma ranks in the top 5 for morphine-related unintentional overdose deaths. There is a large supply of prescription morphine in the State. Trial Tr. (6/7/19 a.m., Nguyen) at 61:14-21.

638. In 2017, enough opioids were prescribed for every Oklahoma adult to have the equivalent of 156 hydrocodone 10 milligram tablets. Trial Tr. (6/7/19 a.m., Nguyen) at 100:25-101:5; S-3957.

639. 156 hydrocodone 10-milligram tablets for every Oklahoma adult is an oversupply of prescription opioids. Trial Tr. (6/7/19 a.m., Nguyen) at 105:2-5.

640. When there is an oversupply of prescription opioids, there is an increase in opioid overdose deaths. Trial Tr. (6/7/19 a.m., Nguyen) at 105:6-18.

641. Though Defendants' sales representatives repeatedly used a "low abuse potential" message to sell Duragesic in Oklahoma, *see, e.g.*, S-2481 – S-2492, Dr. Pfeifer testified he would never refer to a Duragesic patch as something with "low abuse potential." Trial Tr. (6/18/19 p.m., Pfeifer) at 43:18-20.

642. One way in which Oklahomans have abused and died from Duragesic fentanyl patches is by "chewing them, ingestion." Trial Tr. (6/18/19 p.m., Pfeifer) at 19:19-21.

643. This method of fentanyl overdose death has become so common that it has received its own colloquial name—the "fentanyl nod"—in the forensics community:

> [There is] a term that is floating around the forensics community that describes the way that some of these patients are found after they have ingested the patches. The drug is so powerful and so quick-acting, especially within the oral route of ingestion, that the patients might be at a chair at their kitchen or sitting up in bed and they simply just nod and they are found sitting up in a nodded position. We call that the fentanyl nod. . . . [I]t happens often enough that it has its own name . . .

Trial Tr. (6/18/19 p.m., Pfeifer) at 20:1-21:1. The "fentanyl nod" is a "piece of evidence that Dr. Pfeifer uses in making [his] diagnosis." *Id.*

644. Among others, another way Oklahomans have abused and died from Duragesic patches is through "inappropriate dosage of the actual patch itself or using multiple patches applied to the skin." Trial Tr. (6/18/19 p.m., Pfeifer) at 19:10-13; 52:11-16. For example, OCME records[60] describe the death of a woman found with 2 Duragesic patches on her arm as follows:

> Decedent has chronic jaw and abdominal pain for several years. Diagnosed with possibly diverticulitis last month. Decedent had recently been referred to a GI specialist and was scheduled for test next week. Decedent was on

[60] The OCME keeps records in its own database. *See* Trial Tr. (6/18/19 p.m., Pfeifer) at 21:10-22:8; S-4053-A. These records "include the scene narratives" from the OCME investigators. Trial Tr. (6/18/19 p.m., Pfeifer) at 21:20-22. "The narrative is that written product of the investigator who is the first attendant to the scene and is gathering information about the demographics of that scene and the circumstances and observations of that scene." *Id.* at 26:7-12. The "cause of death" is a "final determination by the forensic pathologist" after "everything has been evaluated." *Id.* at 26:9-21; *see also id.* at 14:25-17:10.

> several pain medications – meds and had been for years. Husband states that decedent was somewhat unsteady on her feet last night, had gotten into the hot tub but the decedent kept dozing off so … he made her get out. The decedent went to bed. Husband put medicine on her back during which time decedent fell asleep and started snoring. Decedent and husband do not sleep together. The husband checked on decedent approximately 0500 and found her cold and unresponsive. Decedent found lying supine in bed with blankets covering her. Decedent was face down on pillows with some blood on the sheets having come from her mouth. Decedent wearing two 75-milligram Duragesic patches on left shoulder. The husband does not know when they were placed. He said the decedent would place new ones before removing the old one. Husband said the decedent had never talked of suicide. The wounds on back were said to be from irritated nerves that are aggravated with stress.

Trial Tr. (6/18/19 p.m., Pfeifer) at 34:21-35:15; S-4053A at 12.

645. The cause of this Oklahoma woman's death was "fentanyl, oxycodone toxicity." Trial Tr. (6/18/19 p.m., Pfeifer) at 35:18-19; *see also* Trial Tr. (6/18/19 p.m., Pfeifer) at 41:7-42:12, Ct. Ex. 84 (depicting scene and Duragesic patches on woman's arm).

646. During Dr. Pfeiffer's time with the office, the Oklahoma OCME has "dealt with hundreds of deaths . . . from fentanyl patches." Trial Tr. (6/18/19 p.m., Pfeifer) at 68:18-22.

647. For another example, the OCME investigative narrative describes the scene of the death of a 28-year-old Oklahoma woman, whose cause of death was the "toxic effects of fentanyl," as follows:

> Decedent, a 28-year-old white female, was found dead in bed this morning by her husband when he awoke. Blank advised that the decedent's husband stated the decedent had history of back pain and was on multiple medications. Last night, she was apparently throwing up, stating that the new medication she was on wasn't agreeing with her. She reportedly had just been placed on fentanyl patches. One of the decedent's daughter's birthday is today, and they were planning on putting on a big party today. She had bought numerous

gifts and decorations and also cake mixes to bake the cake this morning. There's is no history of any suicidal ideation.

Trial Tr. (6/18/19 p.m., Pfeifer) at 48:24-49:12; S-4053-A at 27.

648. The State offered numerous other specific examples of Oklahomans, who have died from using fentanyl patches in Oklahoma, into evidence. *See, e.g.*, Trial Tr. (6/18/19 p.m., Pfeifer) at 27:5-69:1; S-4053-A.

649. The State further provided numerous specific examples of Oklahomans, whose deaths were caused by other opioids. *See, e.g.*, Trial Tr. (6/18/19 p.m., Pfeifer) at 69:2-96:21; S-4053-A. For one example, the OCME report for a 14-year-old boy, who died from "toxic effects of tramadol and alprazolam," described the boy's death as follows:

> Decedent found to be dead in the spare room at his grandparents' house, circa 100 hours. His grandparents attempted to wake him. They then pulled him off the bed and did attempt at CPR. Grandmother states decedent had been snoring oddly at 0600, and at 0700 he had stopped. She thought he had just changed positions and was breathing better.
>
> Decedent staying the night with his grandparents, as he lived across the pasture, he would stay with them sometimes to help them around the house. They had planned to clean out the kitchen cabinets this weekend. Grandparents went to bed circa midnight and they believed decedent went to bed circa 0200.
>
> There is a possibility that decedent may have gone over to his house across the pasture before he went to bed. He had left a note requesting pancakes for breakfast. Decedent had been to baseball practice yesterday afternoon. He complained of backache, but refused Tylenol and ibuprofen, as they didn't work. Decedent had always been a healthy kid, no medical problems, and no regular physician. He was always happy. He had mentioned a weight gain to his grandmother, especially over the holidays. Said he had gone from 162 to 180. It is possible that he meant from last baseball season to now, not the holidays period.
>
> Per scene, the decedent had been moved from original position of right sight on the bed, to face up on the floor. Darker emesis from nose and mouth on

> the comforter, floor at side of bed, and on mattress, under where deceased had been. Possible minimal petechiae, eyes bloodshot. Further information gathered by Pocola Police Department.
>
> Deceased had approached a friend at school on Thursday and asked the friend if he looked messed up. Decedent stated – had stated that he took six 0.25 milligrams of off-brand Xanax. Decedent had skipped a class after that. Further conversation by the friend stated that the decedent could, quote, the places of 2.0 milligram Xanax and that he knew where to get them at any time. Friend stated that the decedent had just started taking the pills.
>
> Parenthetically, mother stated that decedent had been complaining of back pain for a while and that it got worse over the past month and week. Her words, extreme. Decedent had not been to the doctor for the complaints. Meds available in the parents' house are Ultram, naproxen, and Advil. Per the Spiro Police Department, does not believe that steroids are readily available in the Pocola area. Family has chosen blank funeral home for arrangements. They have requested Tulsa contract provide transport to Tulsa.

Trial Tr. (6/18/19 p.m., Pfeifer) at 88:18-90:12; S-4053A at 132.

650. These are two examples of the opioid crisis in Oklahoma: one Oklahoman who appears to have died from using fentanyl as prescribed; another Oklahoma child who died due to the apparent overprescribing of unneeded tramadol opioids. *See, e.g.*, S-4053A at 27, 132; *see also* S-4053A generally; Trial Tr. (6/18/19 p.m., Pfeifer) at 27:5-69:1. Over 65% of opioids prescribed and dispensed in Oklahoma go unused by those to whom they were prescribed and are often found and abused by others. *See* J-624 at 22. More than 50% of prescription opioid abuse or misuse derives from obtaining unused drugs for free from friends or family. *See* S-1574 at 41.

651. Some of the many other such examples of Oklahomans, who died from opioid overdoses, include:

- A 55-year-old male, who had been prescribed Percocet and oxycodone and died from "oxycodone intoxication" (Trial Tr. (6/18/19 p.m.) at 69:5-71:10; S-4053A at 72);

- A 40-year-old firefighter, who was taking prescription opioids for back pain and died from "acute oxycodone toxicity" (Trial Tr. (6/18/19 p.m., Pfeifer) at 74:15-76:21);

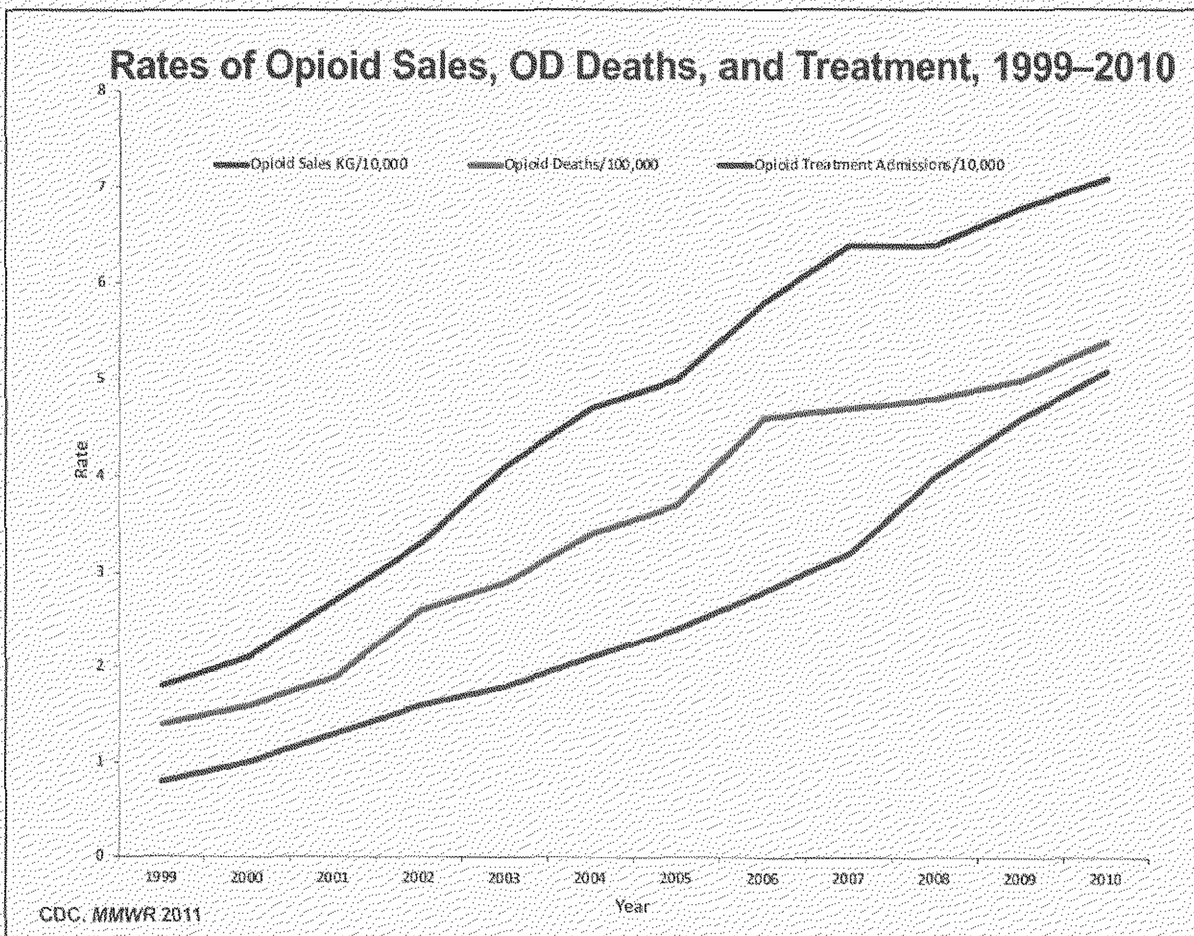
- A 24-year-old female and active duty army soldier, who was taking opioids following pelvic surgery and died from "multidrug toxicity: [] alprazolam, oxycodone and citalopram" (Trial Tr. (6/18/19 p.m., Pfeifer) at 71:16-72:9); and

- A 63-year-old male, who died from "acute tramadol intoxication" (Trial Tr. (6/18/19 p.m., Pfeifer) at 93:10-94:8).

652. Oklahoma's oversupply of opioids included all opioid drugs—the opioids that JJ marketed through its decades long unbranded marketing campaign—opioid drugs that Defendants manufactured, as well as opioid drugs for which Defendants supplied the active pharmaceutical ingredients to other companies to process and convert into their own opioid drugs. Trial Tr. (6/26/19 a.m., Commissioner White) at 109:3-23, 110:6-20.

653. From 1999 to 2010, opioid sales in the U.S. increased considerably. S-906[61]; Ct. Ex. 2 (Portenoy) at 261:21-262:18. Likewise, over the same time period, opioid overdose deaths and opioid treatment admissions increased considerably:

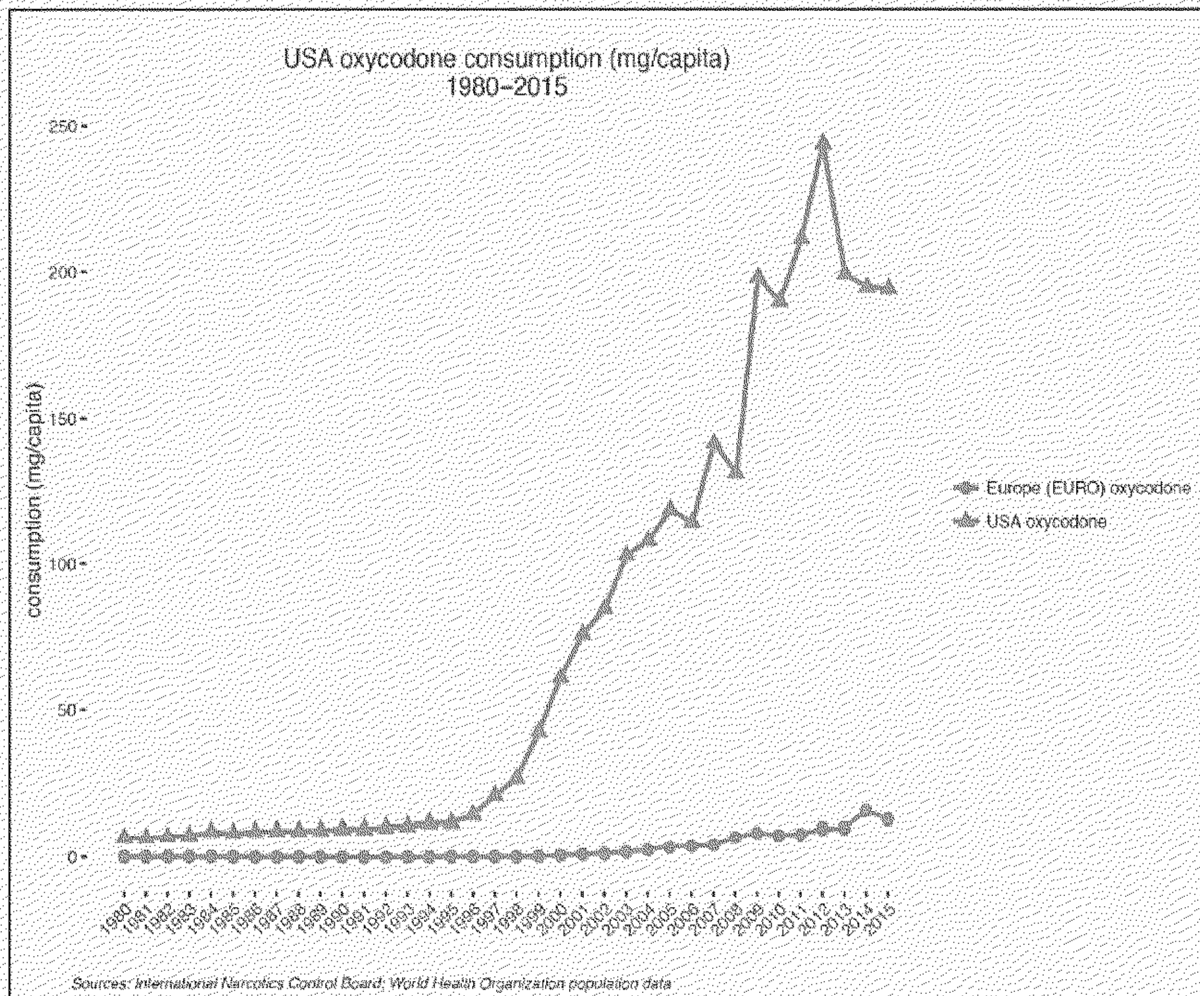
[61] S-906 includes two charts: (i) one depicting data from the CDC on the rates of opioid sales, opioid overdose deaths, and opioid treatment admissions in the U.S. from 1999 through 2010; and (ii) another depicting data from the International Narcotics Control Board and World Health Organization regarding oxycodone consumption in the U.S. and Europe from 1980 through 2015. S-906 was admitted into evidence. *See* Trial Tr. (5/30/19 p.m.) at 16:5-14.



S-906 at 1; Ct. Ex. 2 (Portenoy) at 262:20-263:5. Defendants' own expert, Dr. Fong, relied upon this same chart when he stated that the aggressive marketing and greed of the pharmaceutical industry caused the opioid crisis. *See* Ct. Ex. 60 at slide 19 (presenting same data).

654. From 1980 to 1996, oxycodone consumption in the U.S. remained very small and "virtually flat" when measured in milligrams per capita. S-906; Ct. Ex. 2 (Portenoy) at 264:18-22. Around 1996, this trend changed, and oxycodone consumption began to steadily and "sharply" increase in the U.S. and continued increasing until it reached its peak in 2012. S-906; Ct. Ex. 2 (Portenoy) at 264:18-265:14. While oxycodone

consumption in the U.S. dropped to some degree after 2012, it remained "markedly higher" (by approximately 200 mg/capita) after 2012 than it had been from 1980 through 1996. S-906; Ct. Ex. 2 (Portenoy) at 265:7-10. At the same time, however, oxycodone consumption in Europe remained constant and exponentially lower than in the U.S. from 1980 through 2015.



S-906 at 2; *see also, e.g.*, Ct. Ex. 2 (Portenoy) at 265:17-25.

655. Between 1994 and 2006, opioids became increasingly available to treat pain. *See, e.g.*, Ct. Ex. 0044 (Gilson) at 214:20-25.

656. Defendants were aware that there was a prescription opioid problem by no later than 2008. Trial Tr. (6/3/19 p.m., J&J: Deem-Eshleman) at 42:21-43:01.

657. Yet, in 2009, at the "height of the opioid crisis," Defendants released a "new opioid" (Nucynta) into the market in Oklahoma and elsewhere. Trial Tr. (6/26/19 p.m., Commissioner White) at 24:20-25:1. That is, while the State of Oklahoma was endeavoring to "fight the problem" of opioid oversupply "to get prescribing down," the State was not aware that Defendants were "ramping up the sale of opioids" and Defendants' sales representatives were making sales visits to Oklahoma physicians approximately 18,000 times in a given year. Trial Tr. (6/25/19 a.m., Commissioner White) at 57:1-58:8.

658. One of the populations most impacted by the opioid epidemic is veterans. *See, e.g.*, Trial Tr. (6/11/19 p.m., Kolodny) at 110:12-19. The "overdose death rate in individuals receiving care in the VA system is twice the national average. And we already know that the national average is extraordinarily high." Trial Tr. (6/11/19 p.m., Kolodny) at 110:12-19.

659. Defendants specifically targeted veterans with its marketing media "hooks" in its efforts to sell more opioids. *See, e.g.*, Trial Tr. (6/11/19 p.m., Kolodny) at 110:8-111:17; S-2375. Defendants' own witness at trial, Dr. Schick, testified it would be wrong for Defendants to target veterans in the State of Oklahoma to try to get them to use more opioids so that Defendants could build a billion-dollar brand. *See* Trial Tr. (6/28/19 p.m., Schick) at 199:10-20.

660. The CDC released its Morbidity and Mortality Weekly Report on November 4, 2011 regarding Overdoses of Prescription Opioid Pain Relievers – United States, 1999-2008. S-1223; Trial Tr. (6/3/19 p.m., J&J: Deem-Eshleman) at 35:17-46:02.

661. The report states the following results: "In 2008, drug overdoses in the United States caused 36,450 deaths. [Opioid pain relievers ("OPR")] were involved in 14,800 deaths (73.8%) of the 20,044 prescription drug overdose deaths. Death rates varied fivefold by state. States with lower death rates had lower rates of nonmedical use of OPR and OPR sales. During 1999-2008, overdose death rates, sales, and substance abuse treatment admissions related to OPR all increased substantially." S-1223; *see also* Trial Tr. (6/3/19 p.m., J&J: Deem-Eshleman) at 35:17-46:02.

662. The report concludes: "The epidemic of overdoses of OPR has continued to worsen. Wide variation among states in the nonmedical use of OPR and overdose rates cannot be explained by underlying demographic differences in state populations but is related to wide variations in OPR prescribing." S-1223; *see also* Trial Tr. (6/3/19 p.m., J&J: Deem-Eshleman) at 35:17-46:02.

663. According to the report:

- "In 2007, nearly 100 persons per day died of drug overdoses in the United States. The death rate of 11.8 per 100,000 population in 2007 was roughly three times the rate in 1991. Prescription drugs have accounted for most of the increase in those death rates since 1999. In 2009, 1.2 million emergency department (ED) visits (an increase of 98.4% since 2004) were related to misuse or abuse of pharmaceuticals, compared with 1.0 million ED visits related to use of illicit drugs such as heroin and cocaine. Prominent among these prescription drug—related deaths and ED visits are opioid pain relievers (OPR), also known as narcotic or opioid analgesics, a class of drugs that includes oxycodone, methadone, and hydrocodone, among others. OPR now account for more overdose deaths than heroin and cocaine combined.

OPR frequently are diverted for nonmedical use by patients or their friends or sold on the street. In 2010, 4.8% of the U.S. population aged ≥ 12 years used OPR nonmedically. Nonmedical use of OPR costs insurance companies up to $72.5 billion annually in health-care costs."; and

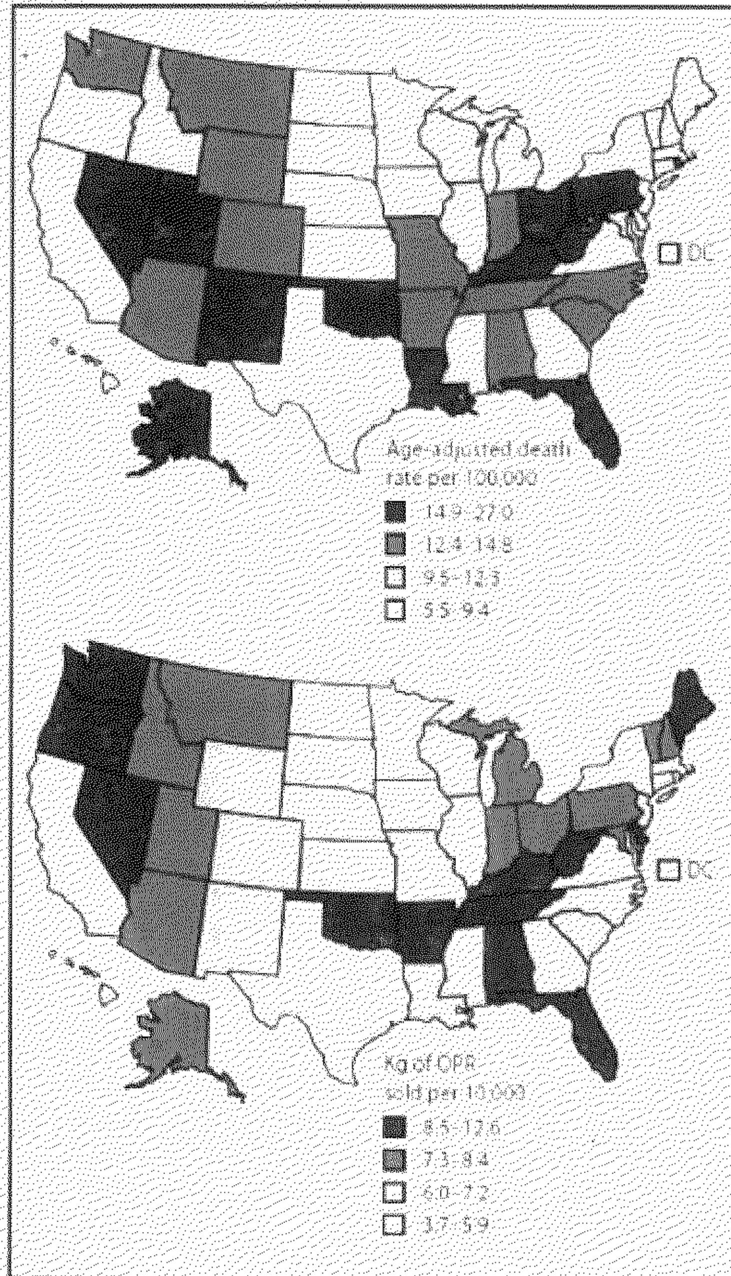
- "The epidemic of prescription drug overdoses in the United States has worsened over the last decade, and by 2008, drug overdose deaths (36,450) were approaching the number of deaths from motor vehicle crashes (39,973), the leading cause of injury death in the United States. Parallel trends in deaths and OPR sales between 1999 and 2008, combined with continuing upward trends in ED visits, OPR abuse treatment admissions, and OPR sales after 2008 suggest that the death rate also has increased since 2008. Preliminary 2009 death data are consistent with such an increase. These increases occurred despite numerous warnings and recommendations over the past decade for voluntary education of providers about more cautious use of OPR."; and

- By 2010, enough OPR were sold to medicate every American adult with a typical dose of 5 mg of hydrocodone every 4 hours for 1 month. Increased use of OPR has contributed to the overall increases in rates of overdose death and nonmedical use, and variation among states in OPR sales probably contributes to state variation in these outcomes. Given that 3% of physicians accounted for 62% of the OPR prescribed in one study, the proliferation of high-volume prescribers can have a large impact on state use of OPR and overdose death rates. Large increases in overdoses involving the types of drugs sold by illegitimate pain clinics (i.e., 'pill mills') have been reported in Florida and Texas. Such clinics provide OPR to large volumes of patients without adequate evaluation or follow-up. Another possible contributor to state disparities is poverty, which was associated with greater increases in state death rates during 1999-2008. Medicaid populations are at greater risk of OPR overdose than non-Medicaid populations.

S-1223; *see also* Trial Tr. (6/3/19 p.m., J&J: Deem-Eshleman) at 35:17-46:02.

664. The CDC's report found that Oklahoma was in the worst category for Drug overdose death rate in 2008 and rate of kilograms of opioid pain relievers sold in 2010:

FIGURE 1. Drug overdose death rate in 2008 and rate of kilograms (kg) of opioid pain relievers (OPR) sold in 2010 --- United States



S-1223 at 10-11; *see also* Trial Tr. (6/3/19 p.m., J&J: Deem-Eshleman) at 35:17-46:02.

665. According to Treatment Episode Data Set ("TEDS") data regarding Primary non-heroin opiates/synthetics admissions rates, by State or jurisdiction from 1999-2009 (per 100,000 population aged 12 and over), between 1999 and 2009, Oklahoma steadily moved from one of the lower rates in 1999 to the highest rate in 2009, along with several other states. *See* S-4519; Trial Tr. (6/3/19 p.m., J&J: Deem-Eshleman) at 46:17-49:16; Trial Tr. (6/13/19 a.m., Kolodny) at 35:25-43:22. This progression illustrates the growing scope of the consequences of this epidemic in Oklahoma from 1999-2009:

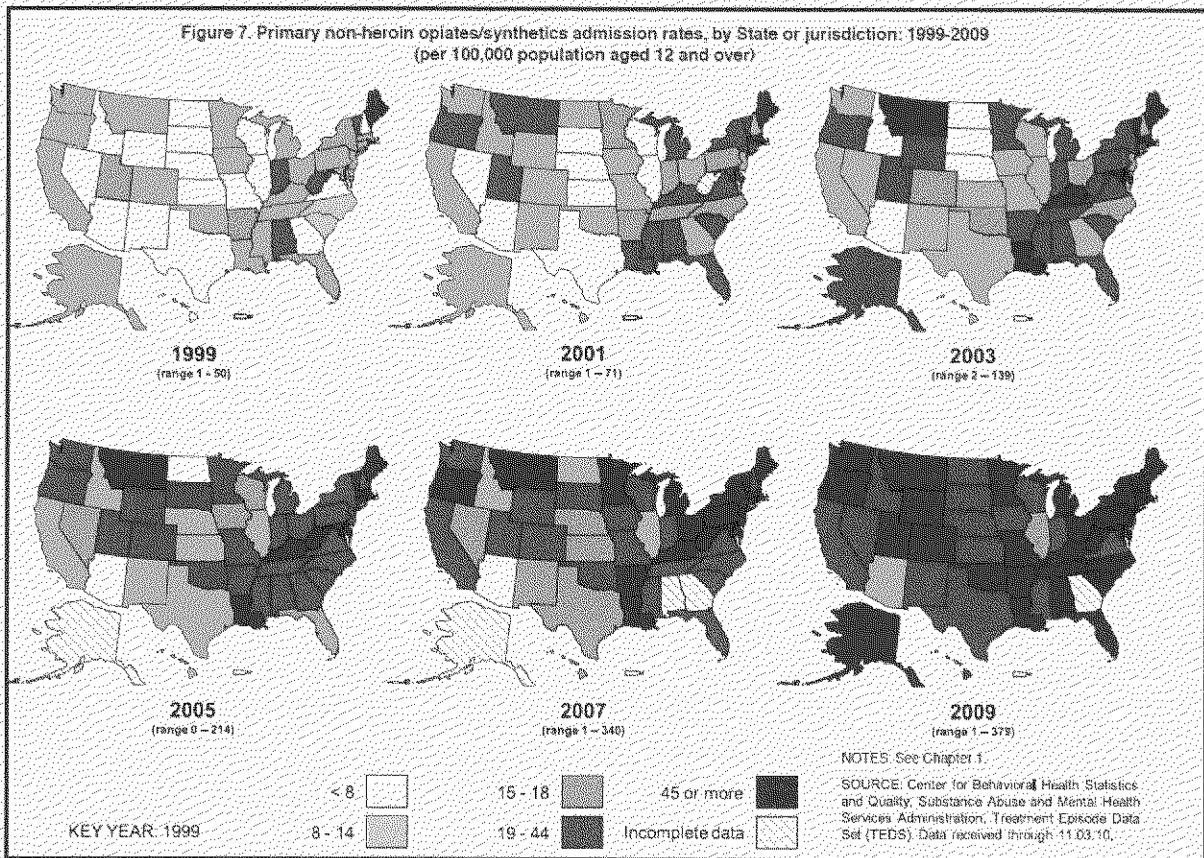


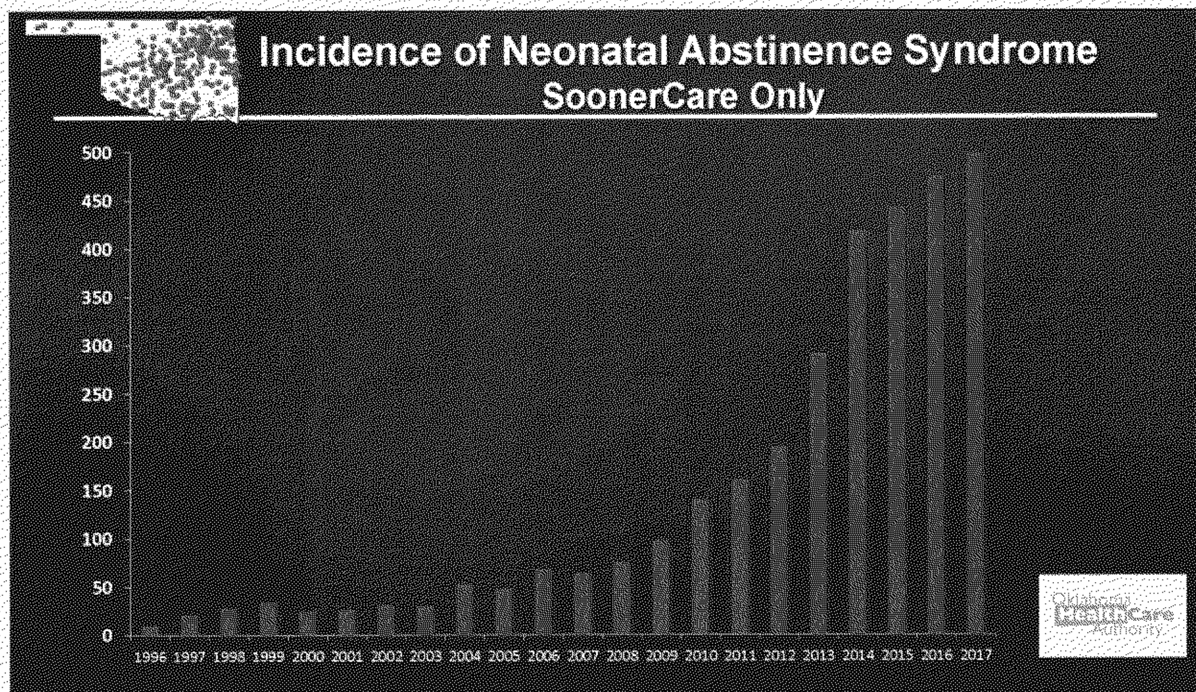
Figure 7. Primary non-heroin opiates/synthetics admission rates, by State or jurisdiction: 1999-2009 (per 100,000 population aged 12 and over)

S-4519. That is, in 2009, the TEDS data reported that at least 45 of every 100,000 Oklahomans over the age of 12 were admitted for substance abuse and mental health

treatment due to non-heroin opiates and synthetics—an increase of at least three times the same rate from a decade prior in 1999. *See* S-4519.

666. Neonatal Abstinence Syndrome ("NAS") is a syndrome that occurs when a baby is born struggling with addiction to drugs that have entered their system as a result of being in the mother's system. Trial Tr. (6/25/19 a.m., Commissioner White) at 70:10-14; Trial Tr. (6/11/19 p.m., Kolodny) at 111:18-112:15.

667. The incidence of NAS in babies born on SoonerCare in Oklahoma from 1996 through 2017 has increased "[d]ramatically" and exponentially. Trial Tr. (6/25/19 a.m., Commissioner White) at 71:16-23; Trial Tr. (6/19/19 p.m., Ratcliff) at 24:23-25; 46:1-15; *see also, e.g.*, S-4054; Trial Tr. (6/11/19 p.m., Kolodny) at 119:01-25. While only a few babies among this sub-population of Oklahomans (on SoonerCare) were born with NAS in 1996, approximately 500 babies were born struggling with this syndrome in 2017.

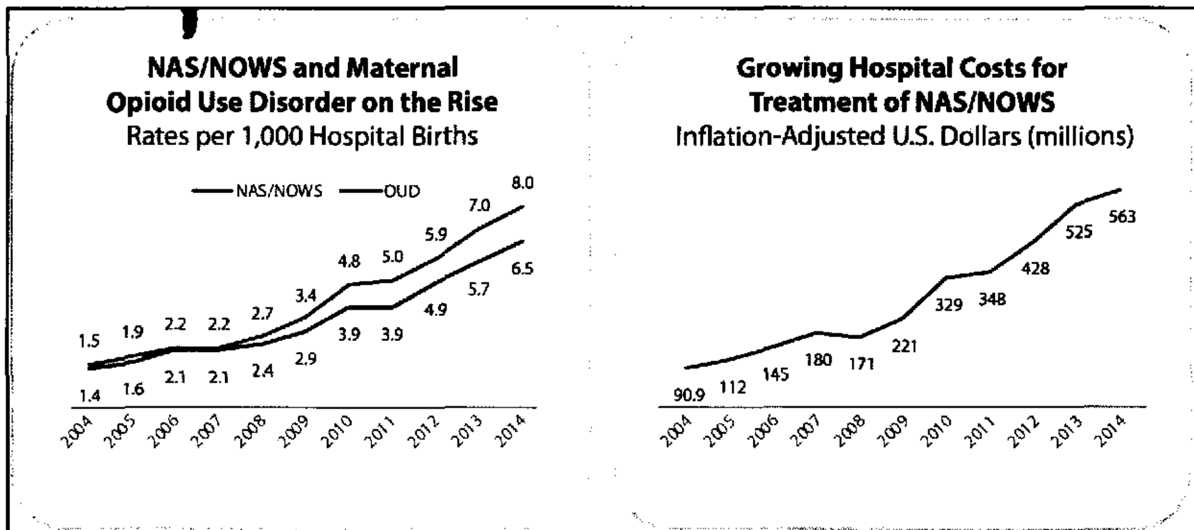


Ct. Ex. 56; *see also* Trial Tr. (6/25/19 a.m., Commissioner White) at 71:16-23; *see also, e.g.*, Trial Tr. (6/19/19 p.m., Ratcliff) at 24:23-25:12, 34:6-21, 35:1-37:3, 38:1-11, 39:2-5, 46:6-15 (describing the many babies being born exposed to and dependent on opioids in Oklahoma in recent years).[62]

668. According to data from NHA, there was a five-fold increase in NAS births between 2004 and 2014. *See* S-2440; *See* Trial Tr. (6/11/19 p.m., Kolodny) at 114:05-115:12.

669. As a whole, since the late 1990s, the U.S. has experienced: (i) "record high levels of overdose deaths"; (ii) "record high levels of [NAS]"; and (iii) a "soaring increase in children entering the foster care system because of their parents' addiction." *See, e.g.*, Trial Tr. (6/11/19 a.m., Kolodny) at 73:02-74:07. Moreover, there has been "a very sharp increase in the prevalence of opioid addiction, nationally from 1996 to 2011, a 900 percent increase in people seeking treatment for addiction to prescription opioids." Trial Tr. (6/11/19 a.m., Kolodny) at 73:02-74:07. The trend of increasing prevalence of NAS has followed the trend of increasing OUD prevalence in the country:

[62] In a given year, SoonerCare provides coverage for approximately 20 to 30 percent of Oklahomans, and the "majority" of the population covered by SoonerCare "is children." *See, e.g.*, Trial Tr. (6/26/19 p.m., Commissioner White) at 27:6-18, 98:18-99:23. Thus, prescription opioids covered by SoonerCare represent only "a sliver" of the opioid problem in the State, and are under-indicative of the scope of the crisis. *Id.* at 98:18-99:23.



See S-2440.

670. One of the KOLs Defendants paid and used for marketing purposes, Dr. Passik, advocated that opioids could be safely and effectively used in pregnant women, falsely claiming babies born with NAS do not go through withdrawals. *See, e.g.*, Trial Tr. (6/26/19 p.m., Commissioner White) at 112:21-113:15, 117:14-120:12, 129:2-13, 130:22-132:7; *see also* Trial Tr. (6/28/19 a.m., Moskovitz) at 104:01-105:19; S-4735. Defendants' Oklahoma sales representative, Ms. Diesselhorst, testified she did a good job "educating" an Oklahoma doctor, even after seeing a complaint stating that he overprescribed tramadol to a pregnant woman in Oklahoma, got her baby addicted, and kept prescribing more because he still did not think the mother was an addict. *See* Trial Tr. (7/2/19 p.m., Diesselhorst) at 233:18-234:2; J-2942. She also testified that she never received any training regarding addiction. *See, e.g.*, Trial Tr. (7/2/19 p.m., Diesselhorst) at 49:22-25.

671. Defendants' sales of their branded opioid drugs, Ultram and Duragesic, grew rapidly each year from 1995 through 2000. *See, e.g.*, S-1073 at 12-13; *see also* Ct. Ex. 0092

(Mashett) at 309:2-310:17. Defendants' sales of their opioid drug, Ultracet, followed a similarly increasing "growth pattern" from 2001 through 2003. *See, e.g.*, S-1073 at 12; Ct. Ex. 0092 (Mashett) at 309:11-21. Defendants generated billions of dollars in opioid sales during the period of at least 1994 through 2006. Ct. Ex. 0092 (Mashett) at 405:5-21.

672. By 2002, Defendants internally attributed the "rapid sales growth" of their opioid, Ultram, to Defendants' "profiling & targeting" of physicians and Defendants' establishment of "'analgesic dilemma' positioning"—*i.e.*, convincing doctors that too many people were in chronic pain (the problem) and prescribing more opioids was the solution—in its marketing. *See* S-1073 at 12; Ct. Ex. 0092 (Mashett) at 304:12-307:20.

673. According to Defendants' documents, by 2001, Johnson & Johnson was a top 10 company based on long-acting and short-acting opioid sales (generic and brand). S-2358; Trial Tr. (5/30/19 a.m., J&J: Deem-Eshleman) at 134:20-135:25.

674. Defendants tracked the growth in the long-acting opioid pain market year after year, as the sales and market in the United States grew by billions of dollars. S-2358; Trial Tr. (5/30/19 a.m., J&J: Deem-Eshleman) at 126:09-127:23.

675. There is no question that the opioid epidemic has ravaged—and continues to ravage—the State of Oklahoma. *See, e.g.*, Trial Tr. (6/25/19 a.m., Commissioner White) at 62:10-73:25, 105:14-108:3; Trial Tr. 6/26/19 p.m., Commissioner White) at 45:13-46:4, 47:17-48:19, 53:20-56:22, 65:17-22.

H. Defendants' False, Misleading and Deceptive Marketing Was A Cause of the Opioid Crisis and Epidemic in Oklahoma

676. Defendants' marketing and sales efforts worked. *See, e.g.*, Ct. Ex. 0092 (Mashett) at 322:22-327:15; S-1073 at 11-16. After Defendants re-launched Duragesic to promote it broadly for chronic non-cancer pain in 1997, opioid "prescribing took off" at unprecedented rates and opioids began "flooding into the United States" and, most especially, "[i]nto Oklahoma." Trial Tr. (6/13/19 p.m., Kolodny) at 16:15-25.

677. Defendants' branded and unbranded marketing caused the sales of opioids and their negative consequences, including for example, opioid addiction and overdose deaths, to "rise rapidly and significantly" in the State of Oklahoma over the last two decades. *See, e.g.*, Trial Tr. (6/26/19 p.m., Commissioner White) at 85:1-10, 94:12-95:21. Through their execution of this comprehensive, multifaceted and misleading marketing campaign, Defendants were a "major cause" of the opioid crisis and epidemic in Oklahoma. *See, e.g.*, Trial Tr. (6/13/19 p.m., Kolodny) at 19:20-23:13.

678. Whereas "narcotic conservatism" served as a dam that prevented another prescription opioid epidemic throughout the better part of the 20th century, that dam was "broken" in the late 1990s through Defendants' messaging designed to inspire "narcotic liberalism" and increase opioid prescribing at unprecedented levels. *See, e.g.*, Trial Tr. (6/17/19 p.m., Beaman) at 34:9-35:5, 40:22-41:13, 64:20-73:19.[63]

[63] The State and its experts acknowledge that, still today, opioids remain essential drugs to be used in specific instances, such as short-term acute pain and post-operative surgery, chronic cancer pain, and end-of-life or palliative care, as they were for over a century before Defendants began promoting their liberal use for chronic non-cancer pain on a long-term basis. *See, e.g.*, Trial Tr. (6/17/19 p.m., Beaman) at 40:5-21; Trial Tr. (6/11/19 a.m., Kolodny) at 74:16-75:05.

679. By misleadingly convincing members of the healthcare community to aggressively overprescribe opioids for conditions for which they previously would not have been prescribed, that opioids were more effective than they really are, safer than they really are, should be used for longer durations at higher doses, targeting primary care physicians who were the least trained in using opioids for chronic pain and diagnosing addiction, and providing data without proper context, opioid manufacturers, including Defendants, eliminated "narcotic conservatism" and caused an oversupply of prescription opioids to flood the State of Oklahoma as a result. Trial Tr. (6/11/19 a.m., Kolodny) at 75:08-77:13.

680. Diminishing fears about risks associated with using opioids for chronic pain carries the possibility of causing increased prescribing of opioids. Ct. Ex. 2 (Portenoy) at 183:4-16. According to Dr. Moskovitz's paper published in 2014, studies have "found that the single strongest predictor of opioid prescribing was a lower level of concern about the possible negative effects of opioids." Trial Tr. (6/28/19 p.m., Moskovitz) at 69:25-85:01; *see also* Ct. Ex. 141.

681. The opioid epidemic was caused by an oversupply of prescription opioid drugs because the population was overexposed to these highly addictive drugs. *See* Trial Tr. (6/11/19 a.m., Kolodny) at 74:11-15. The opioid industry, including Defendants, directly and indirectly caused physicians to overprescribe opioids as a class of drug in Oklahoma by disseminating misinformation about the safety and effectiveness of opioids. *See, e.g.*, Trial Tr. (6/6/19 a.m., Mazloomdoost) at 70:20-71:10, 72:17-73:2.

682. Defendants' own documents confirmed that their strategies worked to increase opioid prescribing. *See, e.g.*, Section F.2, *supra*. A bounty of Defendants' call

notes documented the fact that doctors in Oklahoma prescribed Defendants' opioids in response to J&J's marketing. *See, e.g.*, Trial Tr. (5/31/19 a.m., J&J: Deem-Eshleman) at 24:14-20 ("She would try some nonmalignant patients"); Trial Tr. (5/31/19 a.m., J&J: Deem-Eshleman) at 30:20-23 ("Doctor said he would try more with these patients"); Trial Tr. (5/31/19 a.m., J&J: Deem-Eshleman) at 128:15-24 (agreed that, according to a call note, "the doctor says because of DAWN data, he will only prescribe your drug going forward"); Trial Tr. (6/3/19 a.m., J&J: Deem-Eshleman) at 44:21-45:06 (agreed that call note reflects a doctor agreeing to prescribe Duragesic in response to sales representative efforts); *see also* S-2481-2492; Section F.4, *supra* (providing some of the thousands of such examples of Defendants' call notes in evidence).

683. In Dr. Beaman's opinion, the marketing and misinformation campaign of the opioid industry, including by Defendants, caused the opioid epidemic in Oklahoma. *See* Trial Tr. (6/17/19 p.m., Beaman) at 68:22-70:20, 80:18-81:23.

684. Both Drs. Beaman and Mazloomdoost testified that the multifaceted marketing misinformation campaign by the opioid industry, including Defendants, influenced their practices and caused them to liberally and aggressively write opioid prescriptions they would never write today. *See, e.g.*, Trial Tr. (6/17/19 p.m., Beaman) at 40:22-41:13, 68:7-69:6, 79:1-81:23; Trial Tr. (6/6/19 a.m., Mazloomdoost) at 72:17-73:2.

685. Dr. Mazloomdoost, a pain management specialist who trained at some of the most well-respected institutions in the country, testified that he was himself influenced by the messaging. Trial Tr. (6/6/19 a.m., Mazloomdoost) at 72:21-24 ("Q. Now, do you believe, Dr. Mazloomdoost, that you, too, were influenced by this messaging? A. Yes, sir.

I'm not above admitting that. Even I would have -- had that influence."). As a result, he wrote prescriptions for opioids that he would no longer write today. Trial Tr. (6/6/19 a.m., Mazloomdoost) at 72:25-73:2; *see also, e.g.*, S-1246; Trial Tr. (6/28/19 p.m., Schick) at 175:13-14, 194:21-196:3, 223:17-224:15, 227:14-228:18 (testifying that Dr. Schick became more comfortable prescribing opioids over his career, which was part of Defendants' secret marketing strategy, and demonstrating how quickly influence by misinformation can occur).

686. Defendants' false and misleading messaging about opioids infiltrated the entire healthcare system, the medical education system, and the medical community. *See, e.g.*, Trial Tr. (6/6/19 a.m., Mazloomdoost) at 75:9-76:20. It influenced Oklahoma prescribers, as well as practitioners throughout the entire field of medicine, to prescribe more opioids. *See, e.g.*, Trial Tr. (6/6/19 p.m., Mazloomdoost) at 63:11-16; 95:13-20; *see also, e.g.*, Trial Tr. (6/17/19 p.m., Beaman) at 63:17-25 ("for decades, doctors did not know that they were prescribing rattlesnakes").

687. By 2007-2008, Defendants were using their multifaceted marketing strategy to encourage more opioid prescribing, despite knowing that: (i) the increase of prescription opioids was fueling a public health problem (Trial Tr. (6/11/19 a.m., Kolodny) at 86:07-20; *see also, e.g.*, Trial Tr. (6/3/19 p.m., J&J: Deem-Eshleman) at 42:21-43:01); and (ii) human history had demonstrated that an influx of opium into a society, even when "employed medicinally," led to "widespread addiction." *See, e.g.*, S-0035.

688. For the past two decades, patients in Oklahoma "have taken opioids exactly as their doctors have prescribed. And they've become addicted and some of those patients have died." Trial Tr. (6/17/19 p.m., Beaman) at 121:9-19.

689. The increase in opioid addiction and overdose deaths following the parallel increase in opioid sales in Oklahoma was not a coincidence; these variables were "causally linked." Trial Tr. (6/25/19 a.m., Commissioner White) at 73:19-23. Dr. Beaman also testified that, in his opinion, the increase in opioid overdose deaths and opioid addiction treatment admissions in Oklahoma was caused by the oversupply of opioids through increased opioid sales and overprescribing since the late 1990s. *See* Trial Tr. (6/17/19 p.m., Beaman) at 69:2-73:19.

690. Commissioner White testified that the oversupply and "significant widespread rapid increase in the sale of opioid prescription medications" beginning in the mid-1990s caused the "significant rise in opioid overdose deaths" and "negative consequences" associated with opioid use, including addiction, opioid use disorder, the rise in NAS, and children entering the child welfare system. Trial Tr. (6/25/19 a.m., Commissioner White) at 62:10-63:5.

691. Opioid manufacturers, including Defendants, used the work that Dr. Portenoy and others performed to try to improperly influence the decision making of health care providers in the U.S. Ct. Ex. 2 (Portenoy) at 43:22-44:8; *see also, e.g.*, Ct. Ex. 0044 (Gilson) at 275:16-21, 328:14-332:2, 335:6-11. Dr. Portenoy opined that the way that drug companies, including Defendants, used his work were a factor that created the opioid crisis in the U.S. Ct. Ex. 2 (Portenoy) at 44:11-46:9.

692. Over the past two decades, the U.S. experienced a "public health problem" related to opioids, comprised of, among other things, "rapidly escalating" opioid overdose, opioid abuse and opioid addiction. Ct. Ex. 2 (Portenoy) at 266:1-6. Dr. Portenoy testified that, in his opinion:

> The pharmaceutical industry should accept partial responsibility for the public health problem that has emerged because they distilled from work that was created in the time frame of this problem evolving, all the positives, all the positive messages and packaged that into marketing without concurrently providing the medical community and the public with the context and the kinds of education related to risk to try to make sure that the patients who had access to this drug [opioids] were carefully selected to minimize risk, that they had been selective with this therapy only after other approaches of pain management had not worked, and that if this therapy was tried, it was tried according to guidelines that were published repeatedly during this period of time that pointed to the need to be cautious in dosing, to evaluate aberrant behavior, to react to aberrant behavior—all of that messaging about proper patient selection, about appropriate dosing, about monitoring of drug-related behavior, about dealing with problematic drug-related behavior, that messaging was not included in many – in much of the marketing work that was done by the companies during this period of time. And I have come to believe that that's in part what drove the kind of prescribing by a segment of the physician community that presumably could not select patients appropriately and led to a high risk for patients, including the risk of unintended overdose and mortality.

Ct. Ex. 2 (Portenoy) at 268:24-270:4.

693. In Dr. Portenoy's opinion, the conduct of opioid manufacturers, including Defendants, "in marketing without education about risk produced an increase of inappropriate and unsafe prescribing that contributed to" and was "a cause of" the opioid "public health problem" in the U.S. over the past two decades. Ct. Ex. 2 (Portenoy) at 270:7-271:18.

694. Dr. Gilson, another one of Defendants' KOLs, testified that the documents he was shown during his deposition demonstrated that pharmaceutical companies, including Defendants, compromised the integrity of his work and suggested these companies had "some level of involvement" in creating the present opioid crisis. *See* Ct. Ex. 0044 (Gilson) at 328:14-332:2, 335:6-11, 457:6-18.

695. On November 1, 2017, the President's Commission on Combating Drug Addiction and the Opioid Crisis issued its final report and recommendations. *See* S-1574; Trial Tr. (6/3/19 p.m., J&J: Deem-Eshleman) at 61:17-91:22.

696. With respect to the prescription opioid epidemic in the U.S., the President's Commission on Combating Drug Addiction and the Opioid Crisis found:

- "In the mid-to-late-19th century, the first national opioid crisis occurred. . . . During this time, opioid use rose dramatically, fueled by physicians' unrestrained opioid prescriptions (morphine, laudanum, paregoric, codeine, and heroin) for pain or other ailments and by liberal use of opioid-based treatments for injuries and diseases impacting Civil War combatants and veterans." *See* S-1574; Trial Tr. (6/3/19 p.m., J&J: Deem-Eshleman) at 62:24-63:06; *see also, e.g.*, Section C *supra*;

- "Triggered by excessive prescribing of opioids since 1999, the current crisis is being fueled by several factors that did not exist in the 19th century: the advent of large scale production and distribution of pure, potent, orally effective and addictive opioids; the widespread availability of inexpensive and purer illicit heroin; the influx of highly potent fentanyl/fentanyl analogs; the transition of prescription opioid misusers into use of heroin and fentanyl; and the production of illicit opioid pills containing deadly fentanyl(s) made by authentic pill presses. Prescription opioids now affect a wide age range, families both well-off and financially disadvantaged, urban and rural, and all ethnic and racial groups." S-1574; *see also* Trial Tr. (6/3/19 p.m., J&J: Deem-Eshleman) at 66:06-68:01.

697. The President's Commission on Combating Drug Addiction and the Opioid Crisis found "Contributors to the Current Crisis" in the U.S. to include, among other things:

- the use of the Porter & Jick letter to make "unsubstantiated claims" by pharmaceutical companies;
- the lack of "[h]igh quality evidence demonstrating that opioids can be used safely for chronic non-terminal pain";
- the use of the phrase, "pain as the 'fifth vital sign,'" by the APS, JCAHO and others; and
- the fact that, "[t]o this day, the opioid pharmaceutical industry influences the nation's response to the crisis. For example, during the comment phase of the guideline developed by the [CDC] for pain management, opposition to the guideline was more common among organizations with funding from opioid manufacturers than those without funding from the life sciences industry."

See S-1574; Trial Tr. (6/3/19 p.m., J&J: Deem-Eshleman) at 68:21-69:21, 70:5-23, 81:13-23, 84:22-87:20; *see also, e.g.*, S-1349; S-1350. Defendants did all of these things in Oklahoma. For example, Defendants used the Porter & Jick letter to make "unsubstantiated claims" about the risk of addiction when using opioids. Defendants made claims, unsupported by any high quality evidence, that opioids could be used safely for chronic non-terminal pain. Defendants used the phrase, "pain as the 'fifth vital sign,'" to influence doctors to liberally prescribe opioids. And, to this day, Defendants continue to influence the nation's response to the crisis. *See* Section F *supra*.

698. On May 18, 2017, the Governor of Oklahoma signed into law a resolution forming the Oklahoma Commission on Opioid Abuse ("Oklahoma Commission") in response to the state's opioid epidemic. S-0210 at 3. After being signed into law, the Oklahoma Commission gathered recommendations to address the opioid crisis "from law

enforcement officials, the medical community, business professionals, state legislators, and other stakeholders who came to the table to help" over the course of six meetings. S-0210 at 2. In its findings regarding the rise of the opioid epidemic, the Oklahoma Commission found that: "Opioid manufacturers became focused on enticing doctors to prescribe opioids for common chronic pain conditions. Doctors were told that opioid addiction is rare, that opioids are safe and effective, and that they are easily discontinued . . . . Drug companies engaged in multiple strategies including inundating doctors with scripted propaganda and utilizing their peers in pain management, medical societies, hospitals, and medical boards." S-0210 at 3. Defendants, here, enticed Oklahoma doctors to overprescribe opioids for common chronic pain conditions by, *inter alia*: (i) falsely telling Oklahoma doctors that opioid addiction is rare, that opioids are safe and effective, and that opioids are easily discontinued; and (ii) engaging in multiple strategies, including inundating Oklahoma doctors with scripted propaganda and utilizing their peers in pain management, medical societies, hospitals, and medical boards. *See* Section F *supra.*

699. In January 2019, the National Institute on Drug Abuse ("NIDA"), a United States federal-government research institute whose mission is to "lead the Nation in bringing the power of science to bear on drug abuse and addiction," issued a revised summary of the opioid crisis. *See* J-2370. In its summary, NIDA found that the opioid crisis happened because: "In the late 1990s, pharmaceutical companies reassured the medical community that patients would not become addicted to prescription opioid pain relievers, and healthcare providers began to prescribe them at greater rates." J-2370 at 1. Defendants, here, falsely reassured the Oklahoma community that patients would not become addicted

to prescription opioid pain relievers, and Oklahoma healthcare providers began to prescribe them at greater rates. *See* Sections F, G *supra*.

700. Experts for the State, including pain-expert Dr. Mazloomdoost, testified that one reason opioids have been overprescribed over the last two decades was that most prescribers did not completely understand how pain and opioid drugs work. Trial Tr. (6/6/19 a.m., Mazloomdoost) at 22:15-23.

701. Prior to the mid-1990s, there was a growing number of multidisciplinary pain clinics, which focused on finding and addressing the underlying cause of patients' pain by involving professionals from multiple medical specialties. Trial Tr. (6/6/19 a.m., Mazloomdoost) at 42:4-18. Opioids were used conservatively in these practices, however as overreliance on opioids started in the mid-1990s, these multidisciplinary pain clinics all but disappeared. Trial Tr. (6/6/19 a.m., Mazloomdoost) at 42:4-18.

702. A witness who Defendants called at trial, Dr. Muchmore, testified that he believed overprescribing of opioids began in 1996 as a result of pressure on doctors to prescribe more opioids to treat more pain following the creation of the slogan, "Pain is the Fifth Vital Sign." *See* Trial Tr. (7/3/19 a.m., Muchmore) at 60:6-16. He did not know, because Defendants did not show him their marketing documents, that Defendants had used Pain as the Fifth Vital Sign as one of their marketing gimmicks and had funded the Joint Commission. *See, e.g.*, Trial Tr. (7/3/19 a.m., Muchmore) at 49:1-3; Trial Tr. (6/11/19 p.m., Kolodny) at 71:19-72:17; S-2359 at 3-4; *see also, e.g.*, S-1574.

703. Defendants' expert witness, Dr. Fong, stated in his April 2016 presentation: "I graduated med school [in] 1998. During medical school, it was grilled into our heads

that pain is the fifth vital sign. . . So immediately doctors were learning that, 'Hey, if I don't treat for pain, I could get sued.'" Ct. Ex. 0073 at 5:4-11.

704. Defendants funded the groups behind "Pain is the Fifth Vital Sign," and commercially leveraged the initiative in order to build Defendants' billion-dollar brand. *See, e.g.*, Trial Tr. (6/11/19 p.m., Kolodny) at 71:19-72:17; S-2359 at 3-4; S-1574.

705. On June 19, 2017, the Oklahoma State Bureau of Narcotics and Dangerous Drugs Control ("OBN") issued an Oklahoma Drug Threat Assessment "to provide officials and citizens with helpful information about the drug threats" to Oklahoma. J-624 at 3. In the Threat Assessment, OBN reported:

> By 2010, Oklahoma ranked first in the elicit use of prescription pain killers and second in overdoses per capita. In 2013, Oklahoma doctors prescribed patients enough hydrocodone to provide a 30-day supply to every man, woman, and child in the state - more than 200 million pills each year. Public health officials reported a spike of more than 800 overdose deaths the same year . . . . Officials believe the increase in prescriptions written for pain killers likely contributes to spikes in overdose deaths across the country.

J-624 at 21-22.

706. In Dr. Mazloomdoost's opinion, this misunderstanding was a product of misleading marketing campaigns of opioid manufacturers, including Defendants, that misinformed doctors by "simplify[ing] the problems of pain and then offer[ing] one solution" that supposedly would solve this oversimplified problem: prescription opioids. Trial Tr. (6/6/19 a.m., Mazloomdoost) at 27:24-28:1. And, this one-size-fits-all message that Defendants promoted caught on in the medical community, causing physicians to liberally overprescribe opioids for the treatment of pain. *See, e.g.*, Trial Tr. (6/6/19 a.m., Mazloomdoost) at 27:20-28:24 (testifying that the outlook became: "if all you have is a

hammer, why even bother looking for a nail . . . Just whack the thing, just get it put in place").

707. Despite the exponential increase in opioid prescribing over the past two decades, "every demographic in this country is reporting more pain today than they were 10, 15, 20 years ago." Trial Tr. (6/5/19 a.m., Mazloomdoost) at 152:5-19. In Dr. Mazloomdoost's opinion, there was "no doubt" that opioids have actually contributed to chronic pain in America. Trial Tr. (6/5/19 a.m., Mazloomdoost) at 152:5-7. The United States is the highest prescribing country of opioids, and no evidence indicates that the United States is more effective at treating chronic pain. Trial Tr. (6/11/19 a.m., Kolodny) at 98:09-20. As opioid prescribing in the United States increased, the country did not experience a corresponding decrease in pain. Trial Tr. (6/11/19 p.m., Kolodny) at 66:02-24.

708. "Opioid prescribing by both pain specialists and by primary care physicians started to increase in the mid-1990s." S-0879 at ¶13. This is the precisely the audience who Defendants trained and instructed their sales force to target, who was the focus of Defendants' branded and unbranded marketing campaigns, and who prescribed the majority of Defendants' branded drugs. *See, e.g.*, S-0510; S-0903; S-1358; S-1780; S-1844; S-2358; S-2359; S-2514; S-2515; S-2538; Trial Tr. (5/30/19 a.m., J&J: Deem-Eshleman) at 129:20-130:23, 133:14-22; Trial Tr. (5/30/19 p.m., J&J: Deem-Eshleman) at 116:04-152:25; Trial Tr. (6/11/19 p.m., Kolodny) at 82:6-12, 87:12-23, 122:25-127:17; Trial Tr. (6/12/19 p.m., Kolodny) at 25:06-31:03, 115:10-14.

709. Between 1987 and 2005, the prevalence of long-term opioid use in the U.S. increased "dramatically" by between 61 and 135 percent. Ct. Ex. 2 (Portenoy) at 195:12-16; S-0879 at ¶13.

710. By at least the late 1990s, Dr. Portenoy was aware that serious adverse outcomes related to opioid prescribing for non-cancer chronic pain were occurring. Ct. Ex. 2 (Portenoy) at 195:17-22. Serious hot spots for such adverse outcomes were surfacing around the country. Ct. Ex. 2 (Portenoy) at 196:2-5. Abuse, diversion and addiction rates were rising. Ct. Ex. 2 (Portenoy) at 196:7-10.

711. As "the public health problem of abuse, addiction, and overdose" related to opioids "increased during the 2000s, it became more important" that the warnings and cautionary messages about the risks of opioids be included in pharmaceutical companies' messages about opioids. Ct. Ex. 2 (Portenoy) at 211:8-212:22. These drug manufacturers "needed to step up and include a balanced message" about the use of opioids, but they failed to do so and further failed to go back and correct misinformation they had disseminated in prior years. Ct. Ex. 2 (Portenoy) at 211:8-212:22; *see also* S-0879 at ¶45.

712. By no later than 2001, "a significant number of Oklahoma physicians, the healthcare community, law enforcement, medical advisory boards, the DUR Board" and others in Oklahoma were "being pushed and pushed and marketed [to] and misled" about opioids by Defendants. Trial Tr. (6/26/19 p.m., Commissioner White) at 47:17-48:19.

713. In his 2016 presentation, Dr. Fong, Defendants' expert witness, described what led to the opioid epidemic in the U.S. as follows:

> So you couple physician anxiety about treating pain with a lot more choices prescribed with a pharmaceutical industry that was very aggressive in promoted pain management treatment. So dinners and lunches like this, golf trips, massages. The drug reps, all that -- from 1998 onward till about mid-2000 saying, '***Hey, do me a favor. Prescribe this for me. I'll do you a solid.' So it was a combination of just what we saw in the housing industry -- Right? -- opportunity, greed, easy money, anxiety about losing what I have***.

Ct. Ex. 0073 at 5:25-6:12 (emphasis added).

714. Another of Defendants' expert witnesses, Dr. Laurentius Marais, testified it was "almost self-evident" that the sales of opioids in Oklahoma were the result of the actions and conduct of the interested parties:

> [I]t is almost self-evident that opioids sold into the market in the state of Oklahoma, that the volumes of opioid sales reached in the state of Oklahoma were the result of the circumstances in which they were sold, involving -- shaped by all of the interested -- the actions and conduct of all of the interested involved parties . . . .

Trial Tr. (7/11/19 a.m., Marais) at 129:17-130:5.

715. Another of Defendants' expert witnesses, Dr. Terrell Phillips, gave a CME presentation to the Oklahoma State Medical Association ("OSMA") in October 2016 about how to avoid addiction in pain management, in which Dr. Phillips stated:

> Everyone here knows how we got in this situation. ***They told us we were underprescribing. We need to prescribe more. It's the patient's rights to have pain medicine, so we all got on board***. And when someone said they were hurting, we said, Okay, we are going to give you something. Now it's just the opposite. Not everyone deserves pain medicine."

Trial Tr. (7/12/19 a.m., Phillips) at 71:2-23 (emphasis added); *see also* S-4743 at 7:20-7:48.[64]

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[64] Dr. Phillips gave a CME presentation, titled "Pain Management: How to Avoid the Road to Addiction," to the OSMA on October 28, 2016. Trial Tr. (7/12/19 a.m., Phillips) at 71:2-23.

716. Defendants admit the opioid crisis is not solely a problem of illicit opioids, but also prescription opioids. *See* S-1223; Trial Tr. (6/3/19 p.m., J&J: Deem-Eshleman) at 40:10-17.

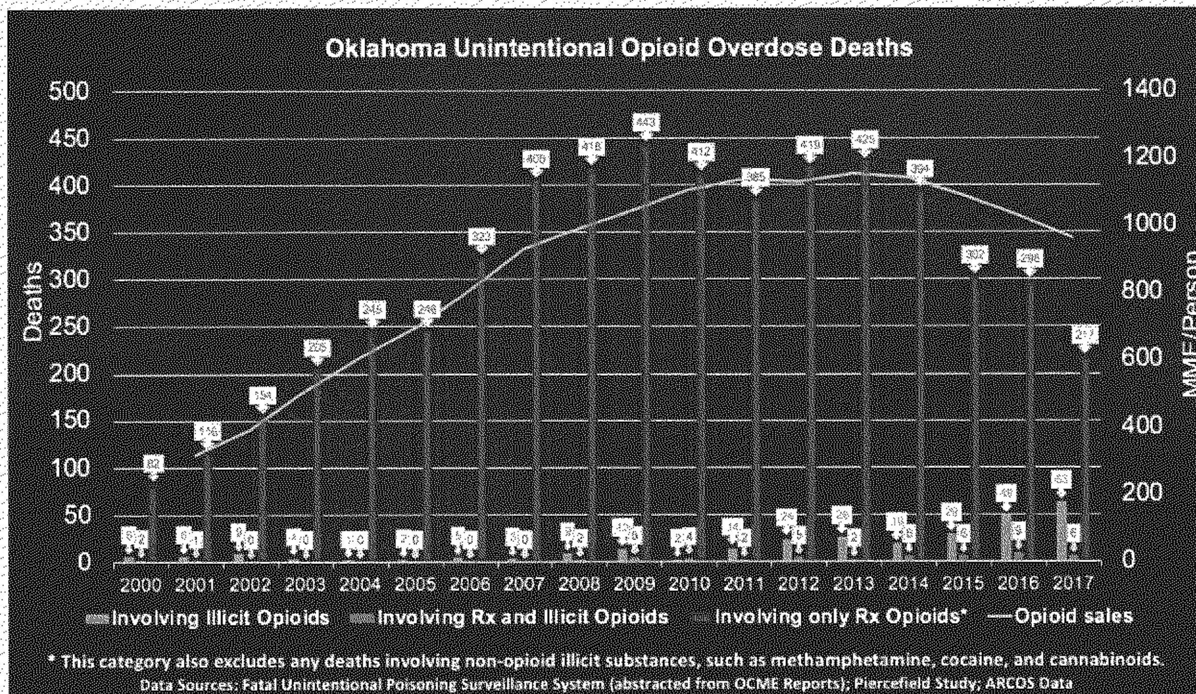
717. In the 1990s and early 2000s, "illicit opioids" were not a "significant problem in the State" of Oklahoma, although illicit opioid problems have risen in recent years. Trial Tr. (6/25/19 p.m., Commissioner White) at 74:19-75:14.

718. This rise in illicit opioid use in Oklahoma was a result and consequence of the oversupply and overprescribing of prescription opioids. *See, e.g.*, Trial Tr. (6/25/19 p.m., Commissioner White) at 74:19-75:14, 85:11-86:18. For example, Commissioner White testified:

> [W]hen the rise in prescription opioid sales occurred, when something of that magnitude happens it is inevitable that there will be a switch to [illicit drugs] when the addiction circuitry is turned on . . . when the addiction circuitry is turned on [and] you can no longer afford a prescription medication which is expensive and you can buy illicit opioids at a much less expensive price on the street, that shift is inevitable. . . . So I absolutely think that there is an illicit problem growing in the State of Oklahoma but I believe it is tied to the oversupply and overprescribing that began of prescription opioids.

Trial Tr. (6/25/19 p.m., Commissioner White) at 75:1-14; *see also, e.g.*, Ct. Ex. 2 (Portenoy) at 383:10-384:1 (testifying the public health problems in the U.S. with continuing rises in opioid mortality and addiction did not "relate[] specifically" to the illicit "importation of fentanyl"). The data demonstrates that the crisis in Oklahoma has been driven by prescription opioid drugs, not illicit opioid drugs:

Excerpts of Dr. Phillips' videotaped CME presentation were played on July 12, 2019. *See* Trial Tr. (7/12/19 a.m., Phillips) at 74:7-8. A transcript of Dr. Phillips' presentation was admitted into evidence as S-4743. *See* Trial Tr. (7/12/19 a.m., Phillips) at 83:20-23.



Ct. Ex. 41 at slide 13 (charting data); Trial Tr. (6/7/19 a.m., Nguyen) at 93:7-94:6.

719. Once a patient becomes addicted to opioids, he or she may often switch to other drugs of abuse, including illicit opioids, if their opioid supply is eliminated. *See, e.g.*, Trial Tr. (6/6/19 p.m., Mazloomdoost) at 88:16-89:6.

720. In October 2017, the Drug Enforcement Administration ("DEA") issued a "2017 National Drug Threat Assessment." *See* J-2426. In its assessment of Controlled Prescription Drugs ("CPDs"), the DEA found that recent initiates and occasional prescription opioid users "primarily obtained prescription pain relievers from friends and family, followed by legitimate prescriptions or by stealing from a health care provider." J-2426 at 46. The DEA further found that, despite trends in reducing supply, "prescription opioids available on the legitimate market remains significant" and, "with the slightly

declining abuse levels of CPDs, data indicates there is a corresponding increase in heroin use." J-2426 at 37, 46.

721. "In the 1990s, healthcare providers [in Oklahoma] began prescribing opioid pain relievers at a high rate; consequently, the practice of overprescribing led to the widespread diversion and abuse of these medications." J-2951 at 15. In 2017, heroin represented an "emerging threat" in Oklahoma that arose "likely due to changes in the supply and demand for other drugs, namely prescription opioids." J-2951 at 10, 18. In 2017, as "Oklahoma lawmakers ha[d] worked to pass laws aimed at reducing the availability of prescription opioids . . ., those addicted to prescription opioids ha[d] turned to heroin, a less expensive alternative that provides a similar effect." J-2951 at 18.

722. In his 2014 publication, Defendants' expert, Dr. Moskovitz, described the relationship between "increased opioid prescribing" and "higher rates of misuse, abuse, emergency room visits, and overdose" to be "more than circumstantial":

> Corresponding to the rise in opioid prescribing is the expansion in rates of opioid misuse (i.e., inappropriate use of a medication for medical purposes, rather than mind-altering effects), abuse (i.e., use of medication for mind-altering effect or in any manner not consistent with the way in which the opioid was prescribed by the treating physician), as well as both fatal and nonfatal overdoses. For example, in 2010, 4.8% of the US population aged ≥ 12 (~14.4 million) used opioids nonmedically. Nonadherence rates for prescribed opioids range from 2% to a high of 53% depending on how misuse and abuse are defined and measured, ***while recent data on illicit use indicate that prescription opioids account for more overdose deaths than heroin and cocaine combined. This relationship is more than circumstantial, as multiple investigations have been conducted to support the purported causal influence of increased opioid prescribing to higher rates of misuse, abuse, emergency room visits, and overdose***. Unfortunately, education directed toward prescribers to assist them to develop the most appropriate pain management strategy designed for individual patients is limited.

Trial Tr. (6/28/19 p.m. Moskovitz) at 69:25-85:01 (emphasis added); *see also* Ct. Ex. 14.

723. From 2007 to 2012, the rate of prescription drug overdose death was approximately four times the rate of illicit drug overdose in Oklahoma. Trial Tr. (6/7/19 a.m., Nguyen) at 81:11-17. There were more deaths in that time period involved either hydrocodone or oxycodone than alcohol and all illicit drugs combined. *Id.*[65]

724. Claire Nguyen, the State's chief epidemiologist, testified that while she was aware of fentanyl being pressed into counterfeit pills manufactured outside the United States, she was not aware of this occurring in Oklahoma. Trial Tr. (6/7/19 a.m., Nguyen) at 120:6-25.

725. Unintentional overdose deaths involving both fentanyl and methamphetamine are uncommon in Oklahoma. Trial Tr. (6/7/19 a.m., Nguyen) at 122:4-21. From 2007 to 2017, only 68—or 11 percent—of all fentanyl-related unintentional overdose deaths involved both methamphetamine and fentanyl. Trial Tr. (6/7/2019 p.m., Nguyen) at 34:15-18.

726. Unintentional overdose deaths involving both fentanyl and heroin are not common in Oklahoma. Trial Tr. (6/7/19 a.m., Nguyen) at 122:4-10. From 2007 to 2017,

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[65] Oklahoma has been testing for fentanyl analogs since approximately 2014. Trial Tr. (6/7/19 a.m., Nguyen) at 123:17-124:3. Oklahoma participated in a study with the Council of State and Territorial Epidemiologists in which the OCME outlined the fentanyl analogs for which they tested. *Id.* A medical examiner report will indicate whether a probable cause of death is heroin using a variety of indicators. Trial Tr. (6/7/19 a.m., Nguyen) at 60:13-61:13. First, a toxicology report from the OCME may indicate a probable cause of death is heroin because it includes the metabolite 6-monomethylmorphine (or "6-MAM"), which is a metabolite of heroin. *Id.* Second, a narrative or description of events surrounding the death may indicate recent heroin usage, a history of heroin use or heroin-like substance found at the scene of death. *Id.*

only one death involved both fentanyl and heroin. Trial Tr. (6/7/19 p.m., Nguyen) at 34:7-11.

727. From 2007 to 2012, 80 to 90 percent of benzodiazepine involved unintentional overdose deaths also involved a prescription opioid. Trial Tr. (6/7/19 p.m., Nguyen) at 34:23-25.

728. From 2007 to 2012, 33 percent of prescription opioid unintentional overdose deaths involved a benzodiazepine. Trial Tr. (6/7/19 p.m., Nguyen) at 35:1-3.

729. However, from 2007 to 2012, less than 1 percent of unintentional overdose deaths involved just a benzodiazepine alone. Trial Tr. (6/7/19 p.m., Nguyen) at 35:4-6.

730. Unintentional overdose deaths involving both fentanyl and cocaine are not common in Oklahoma. There were only 17 unintentional overdose deaths involving cocaine and fentanyl in the State of Oklahoma for the 11-year period, 2007 to 2017. Trial Tr. (6/7/19 p.m., Nguyen) at 34:12-14.

731. There were only 2 fentanyl analog involved unintentional overdose deaths in 2015. Trial Tr. (6/7/19 a.m., Nguyen) at 62:24-63:7. In 2016, there were approximately four or five fentanyl analog involved unintentional overdose deaths. *Id.* In 2017, there were only 14 fentanyl analog involved unintentional overdose deaths. *Id.* So, while fentanyl analog involved unintentional overdose deaths have been increasing, they are quite uncommon compared to other substances. *Id.*

732. The President's Commission on Combatting Drug Addiction and the Opioid Crisis found that it was the "surge" in prescription "opioid supply" that surged into, among other things, "the advent of deadly fentanyl analogs." S-1574 at 48.

733. Studies show that four out of five heroin users began by using prescription opioids. *See* Trial Tr. (6/11/19 a.m., Kolodny) at 21:05-15. In his 2016 presentation, Dr. Fong, Defendants' expert witness, agreed, stating: "The vast majority of people who start using heroin don't pick up heroin right away. They pick up prescription pills first, and then when the pills run out or they no longer have access to pills, they turn to heroin." Ct. Ex. 0073 at 3:2-7. Dr. Fong's slideshow accompanying his 2016 presentation stated: "80% of heroin initiates used prescription opiates previously." Ct. Ex. 0060 at 12.

734. At various times, Defendants also have suggested that the diversion of prescription opioids was what caused the opioid epidemic in Oklahoma, but the evidence does not bear this out.

735. From 1998 to 2018, incidences of diversion of opioids "grew exponentially" in Oklahoma. Trial Tr. (7/12/19 p.m., Hamilton-Fain) at 14:18-22.

736. While in 1998, there were "maybe 25 cases" of diversion per year in Oklahoma, by 2008, the rate of diversion of opioids had tripled or quadrupled to "anywhere from 75 to a hundred cases per year." Trial Tr. (7/12/19 p.m., Hamilton-Fain) at 14:22-15:4.

737. If "there wasn't a demand" for prescription opioids, "then there wouldn't be diversion." Trial Tr. (7/12/19 p.m., Hamilton-Fain) at 13:23-14:12.

738. Through their marketing and sales efforts, Defendants generated increased demand for prescription opioids in Oklahoma. *See, e.g.*, Trial Tr. (7/12/19 p.m., Hamilton-Fain) at 14:13-17.

739. When this demand for opioids is not "met legitimately" through a prescription, individuals "resort" to illicit means of obtaining opioids—e.g., diversion of prescription opioids or the use of illicit drugs. *See, e.g.*, Trial Tr. (7/12/19 p.m., Hamilton-Fain) at 13:23-14:12.

740. The President's Commission on Combatting Drug Addiction and the Opioid Crisis found that it was the "surge" in prescription "opioid supply" that also escalated into, among other things, "diversion" of opioids. *See* S-1574.

741. Additionally, through efforts like fighting to keep tramadol from being scheduled in Oklahoma, Defendants "absolutely" "contributed to the diversion of opioids." Trial Tr. (7/12/19 p.m., Hamilton-Fain) at 16:10-14.

742. Due to the nature of the nuisance and extent of Defendants' marketing and their multifaceted efforts causing it, the harm Oklahoma has suffered during the opioid crisis is not divisible or apportionable. *See, e.g.*, Trial Tr. (6/10/19 p.m., Stone) at 158:6-11 (testifying it is "impossible" to "separate out whether the rising tide lifted one ship versus another"); *see also, e.g.*, Trial Tr. (6/26/19 a.m., Commissioner White) at 113:25-114:1 ("I believe we had an oversupply of all opioid products including Nucynta"); Trial Tr. (6/26/19 p.m., Commissioner White) at 29:25-30:20; Trial Tr. (6/17 p.m., Beaman) at 166:20-167:18 (testifying that Defendants' marketing "caused an increase" in supply of all opioids because Defendants "were telling doctors, opioids – you cannot get addicted to opioids if they're used for pain," and, thus, the problem is not just "a Duragesic-addicted individual," but "opioid addiction"); Trial Tr. (6/17/19 a.m., Kolodny) at 29:2-9 ("It was the unbranded campaign to increase prescribing of opioids as a class of drug that affected

all opioids"); Ct. Ex. 2 (Portenoy) at 268:11-271:24. For example, Defendants' expert, Dr. Bagley testified that the harm is "[v]ery complex" and "tough to divide," and he did not have the data to and could not say what "percentage of the opioid crisis in Oklahoma" is due to "legal prescription opioids" or "illegal opioids." Trial Tr. (7/11/19 p.m., Bagley) at 165:3-17, 111:25-112:11, 163:8-14.

743. According to Commissioner White, Defendants' conduct annoyed, injured or endangered the comfort, repose, health and safety of Oklahomans:

> So when you talk about injuring the health and safety of Oklahomans, turning on the addiction circuitry in someone's brain and creating a lifelong disease, a chronic disease that Oklahomans can die from, is certainly an injury. And when you talk about – when you use the word endanger the health and safety of Oklahomans, killing 6,137 Oklahomans absolutely endangers their health and safety.

Trial Tr. (6/25/19 a.m., Commissioner White) at 105:14-106:4. Dr. Kolodny agreed. Trial Tr. (6/13/19 p.m., Kolodny) at 19:20-20:8. All Oklahomans who sought treatment for pain were at risk of being prescribed opioids, and thus at a heightened and unjustified risk of addiction and overdose, as a result of Defendants' misleading campaign to expand opioid prescribing practices.

744. According to Commissioner White, Defendants' conduct offended decency:

> When you pr[e]y on a State that is vulnerable to addiction, that offends my decency. When you pr[e]y on a high risk school with a nonevidence-based prevention program, that offends decency.

Trial Tr. (6/25/19 a.m., Commissioner White) at 106:15-107:1. Dr. Kolodny agreed. Trial Tr. (6/13/19 p.m., Kolodny) at 20:9-16.

745. According to Commissioner White, Defendants' conduct made it dangerous for Oklahomans to use the roads, streets and other public places in the State. Trial Tr. (6/25/19 a.m., Commissioner White) at 107:2-15.

746. According to Commissioner White, Defendants' conduct rendered Oklahomans insecure in life or in property. Trial Tr. (6/25/19 a.m., Commissioner White) at 107:16-108:3. Dr. Kolodny agreed. Trial Tr. (6/13/19 p.m., Kolodny) at 20:17-22.

747. According to Commissioner White, the opioid crisis and epidemic in Oklahoma has affected a considerable number of persons in Oklahoma at the same time. Trial Tr. (6/25/19 a.m., Commissioner White) at 105:14-106:4.

748. According to Dr. Beaman, "the cause of the opioid epidemic in Oklahoma is the misinformation campaign unleashed on our state, a vulnerable population, by the pharmaceutical manufacturers, including Johnson & Johnson and Janssen." Trial Tr. (6/17/19 p.m., Beaman) at 69:2-6. Dr. Kolodny agreed. Trial Tr. (6/13/19 p.m., Kolodny) at 21:9-23:13.

I. What Is Needed to Abate the Crisis

749. 6,137 Oklahomans died from an unintentional overdose due to prescription opioids from 2000 to 2017. Trial Tr. (6/25/19 a.m., Commissioner White) at 82:25-83:7. This represents 139,359 lost years or 50,866,035 lost days of potential life due to unintentional opioid overdoses. Trial Tr. (6/25/19 a.m., Commissioner White) at 83:9-13.

750. As Commissioner White testified:

> These are not just numbers, these are Oklahomans. These are our friends, these are our families, these are members of our community of faith. These are people we go to school with. These are our coworkers. These are people

leading our state. These are people who have fought for our country and have fought for our state. These are our children, these are mothers, these are fathers, these are brothers, these are sisters. These are Oklahomans, not numbers.

Trial Tr. (6/25/19 a.m., Commissioner White) at 68:2-9.

751. As OBN public information and education officer, Mark Woodward, aptly stated:

> If you could view your community through special glasses that would allow you to identify the prescription drug addicts, it would scare you to death. They are people you'd often least suspect, including police officers, doctors, school teachers, and other prominent members of society. Sadly, many of these adults never intended to become addicted. They became what I'd term "accidental addicts." Some have no history of ever trying street drugs. But because of an injury or other health reason, doctors placed them on prescription pain medications or antianxiety drugs. And over time, the pain is gone but the ability to simply function day-to-day becomes predicated by the need to take more and more prescription drugs.

J-637 at 4-5.

752. As the State's exert, Gary Mendell,[66] testified:

Gary Mendell is currently employed as the Chairman and CEO of an organization called Shatterproof. Trial Tr. (6/18/19 a.m., Mendell) at 6:3-5. Shatterproof is a national nonprofit to reverse the course of the addiction epidemic. Trial Tr. (6/18/19 a.m., Mendell) at 6:6-9. Mr. Mendell successful launched hotel investment companies, overseeing hotel revenues of about $2 billion. Trial Tr. (6/18/19 a.m., Mendell) at 7:1-8:24. In the last 7 years, Mr. Mendell has acquired a great deal of experience and specialized education and training in the field of addiction. Trial Tr. (6/18/19 a.m., Mendell) at 34:8-12. Mr. Mendell regularly speaks to experts all over the country on these issues. Trial Tr. (6/18/19 a.m., Mendell) at 34:13-19. Mr. Mendell is now one of the leading voices in the country in the field of addiction and specifically on the opioid crisis. Trial Tr. (6/18/19 a.m., Mendell) at 13:5-7. Mr. Mendell testified in front of the President's Commission on Combating Drug Addiction and the Opioid crisis and was the key note speaker at the National Academy of Medicine. Trial Tr. (6/18/19 a.m., Mendell) at 41:1-9. Mr. Mendell brings valuable business expertise into the area of abating the nuisance. Trial Tr. (6/18/19 a.m., Mendell) at 59:25-60:2. The Court accepted Mr. Mendell as an expert in the fields of (1) addiction; (2) solutions to the public nuisance; and (3) the State's Abatement Plan. Trial Tr. (6/18/19 a.m., Mendell) at 43:5-18.

> Then we talk about self-stigma, which is a result of the public stigma. How does a person who is addicted feel that caused my son to take his life? But this is not about my son. Let me make that very clear. My son has passed. This is not about my son anymore. This is about everybody's son and daughter. The State of Oklahoma and across this country and everyone's grandson and great-grandchildren and great-great-grandchildren who are to come in future years. That's what this is about and this needs to be changed.

Trial Tr. (6/18/19 a.m., Mendell) at 79:16-24.

753. The opioid crisis has "decimated" Oklahoma; "It has ruined families. It's ruined childhoods. It's stolen parents. It's stolen children." Trial Tr. (6/17/19 p.m., Beaman) at 65:17-20.

754. Oklahomans who lost their lives to opioids are not the only ones who have suffered from the nuisance in the State. Trial Tr. (6/25/19 a.m., Commissioner White) at 68:10-14. For every death in Oklahoma caused by the nuisance, there is a much larger number of Oklahomans who have become addicted to opioids and continue to suffer from addiction. Trial Tr. (6/25/19 a.m., Commissioner White) at 68:10-20; *see also, e.g.*, Trial Tr. (6/17/19 p.m., Beaman) at 64:20-65:24 (describing opioid overdose deaths as only the "tip of the iceberg" of the nuisance in Oklahoma); *See* Trial Tr. (6/13/19 a.m., Kolodny) at 45:10-46:02.

755. For example, according to the CDC, in 2015, for every one prescription or illicit opioid overdose death, there were 18 people who had a substance use disorder involving heroin; 62 people who had a substance use disorder involving prescription opioids; 377 people who misused prescription opioids in the past year, and 2,946 people

who used prescription opioids in the past year. Trial Tr. (6/20/19 p.m., Hawkins)[67] at 109:24-110:7, Ct. Ex. 97 at 3.

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[67] Ms. Hawkins is the senior director of prevention services at ODMHSAS and one of the architects of the State's Abatement Plan. Trial Tr. (6/20/19 p.m., Hawkins) at 70:16-19, 106:3-9. Ms. Hawkins, who has been working in prevention services for about 20 years, oversees the State's portfolio of substance use prevention dollars, any additional discretionary grants, state appropriations and other sources of prevention funding. Trial Tr. (6/20/19 p.m., Hawkins) at 71:3-9; 89:15-17. Ms. Hawkins has specialized training as a substance abuse specialist and has a certification as an instructor in several evidence-based prevention programs. Trial Tr. (6/20/19 p.m., Hawkins) at 72:6-13. Ms. Hawkins obtained a bachelor's degree in sociology from California State University in San Diego and obtained a master's degree in administrative leadership from University of Oklahoma while working full time at ODMHSAS. Trial Tr. (6/20/19 p.m., Hawkins) at 71:15-72:5. While obtaining her bachelor's degree and immediately thereafter, Ms. Hawkins worked full time at Mental Health Services, a large nonprofit in Southern California, providing substance use disorder and mental illness treatment. Trial Tr. (6/20/19 p.m., Hawkins) at 72:14-73:8. Ms. Hawkins specifically worked with youth advancing policies around tobacco control, alcohol prevention, and drug use prevention. Trial Tr. (6/20/19 p.m., Hawkins) at 73:10-22. After working at Mental Health Services for 8 years, Ms. Hawkins became both the program manager and integration manager for the American Cancer Society where her responsibilities included youth tobacco control programs, community health programs, and infusion of the American Cancer Society's mission into development activities. Trial Tr. (6/20/19 p.m., Hawkins) at 74:1-19. Ms. Hawkins obtained a merit-based promotion at the American Cancer Society before returning to Oklahoma to become the prevention program manager for ODMHSAS. Trial Tr. (6/20/19 p.m., Hawkins) at 74:20-75:1, 75:17-22. Upon her return to Oklahoma, Ms. Hawkins oversaw the youth suicide prevention initiative, the methamphetamine prevention initiative, and consulted on the substance abuse prevention and treatment block grant. Trial Tr. (6/20/19 p.m., Hawkins) at 75:17-76:7. Ms. Hawkins was subsequently promoted to director of prevention services and then again to senior director where she grew the newly formed prevention services division and brought significant funding to the State to elevate the importance of those services. Trial Tr. (6/20/19 p.m., Hawkins) at 76:8-77:8. Through Ms. Hawkins' grant request, ODMHSAS received its first SIG grant from SAMSA, which required a statewide needs assessment, resulting in a focus on 2 of the most pressing issues in the State: underage drinking and prescription drug use. Trial Tr. (6/20/19 p.m., Hawkins) at 77:9-78:11. On a day-to-day basis, Ms. Hawkins sets the strategic direction for prevention services including preparing funding proposals, overseeing and developing substance use and prevention programs, supervising staff, researching evidence-based programs, and presenting at conferences around the nation. Trial Tr. (6/20/19 p.m., Hawkins) at 78:24-80:10. In her role, Ms. Hawkins has developed several state-wide plans including two specifically around prescription drug abuse. Trial Tr. (6/20/19 p.m., Hawkins) at 86:11-22. Ms. Hawkins has been published in peer-reviewed journals twice, holds a position on the executive management team at ODMHSAS, and is the vice-president of the National Prevention Network—an association of all prevention directors in every state and territory in the nation. Trial Tr. (6/20/19 p.m., Hawkins) at 87:8-89:14. Ms. Hawkins has dedicated her entire career to preventing substance abuse and misuse, with a significant focus on opioids since 2010. Trial Tr. (6/20/19 p.m., Hawkins)

756. In developing the Abatement Plan, the experts considered the scope of the nuisance. There are many more consequences to the state of Oklahoma and adverse harms that have occurred because of this nuisance than opioid overdose deaths. Trial Tr. (6/20/19 p.m., Hawkins) at 110:8-13. These consequences and adverse harms include more than 4,000 hospitalizations due to opioid involved overdose in just a five-year period. Trial Tr. (6/20/19 p.m., Hawkins) at 110:14-17. These are non-fatal encounters with opioids that involved injuries so severe they required admission to a hospital. Trial Tr. (6/20/19 p.m., Hawkins) at 110:17-21. This number does not even include Oklahomans who went to the hospital through an emergency department and were discharged. Trial Tr. (6/20/19 p.m., Hawkins) at 110:21-24.

757. The adverse consequences also include the large number of NAS births in the State. Trial Tr. (6/20/19 p.m., Hawkins) at 110:25-111:7. In 2017, the last year for which the State has full data, there were approximately 498 NAS births in the SoonerCare system, which represents a sharp increase in NAS births. *Id.*; S-4054.

758. The nuisance also has had a huge impact on young people in the State. Survey data collected among high school students in Oklahoma shows 16.4 percent of Oklahoma

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at 89:15-90:22. Ms. Hawkins works to combat the nuisance daily on both an individual and statewide level, is involved in several workgroups focused on the nuisance and has worked on numerous committees focused on developing pain and opioid guidelines, including those for pregnant women. Trial Tr. (6/20/19 p.m., Hawkins) at 90:23-91:17. Ms. Hawkins' work expanded to a statewide initiative that successfully accomplished a goal of reducing statewide unintentional opioid overdoses by 15% in five years. Trial Tr. (6/20/19 p.m., Hawkins) at 91:18-93:12. Due to the previous plan's success, Ms. Hawkins was a crucial part in initiating a 2016 follow up plan that added new items and addressed new ways to combat the nuisance. Trial Tr. (6/20/19 p.m., Hawkins) at 95:11-96:4.

high school students report misusing prescription opioids in Oklahoma. Trial Tr. (6/25/19 a.m., Commissioner White) at 77:8-16; *see also* Ct. Ex. 111 (illustrating data in aid of Commissioner White's testimony); Trial Tr. (6/20/19 p.m., Hawkins) at 111:8-20. Prescription opioids are one of the most prevalent drugs being used in high schools. *Id.* Research shows approximately half of the teenagers who initiate use in high school will go on and continue to use opioids into young adulthood. *Id.*

759. To say that the nuisance has had a "significant impact" on the State of Oklahoma "is an understatement." Trial Tr. (6/25/19 a.m., Commissioner White) at 90:2-9.

760. In developing the Abatement Plan, the State's experts looked not only at the scope of the nuisance, but also at its nature. Trial Tr. (6/20/19 p.m., Hawkins) at 112:1-18. The nature of the nuisance helps to understand what is driving it including collecting data around risk factors for the development of OUD. *Id.* Forty (40) years of prevention science informs a clear set of factors that drive problems and offers evidence-based interventions to address those problems. Trial Tr. (6/20/19 p.m., Hawkins) at 113:25-114:6. Known risk factors for developing OUD include availability and access. Trial Tr. (6/20/19 p.m., Hawkins) at 112:19-113:4. The reason opioids are one of the most prevalently used drugs among young people is because they are widely available and easily accessible. *Id.* The Abatement Plan was developed in a way to address these risk factors. *Id.*

761. Another risk factor that has been demonstrated is the perception of harm. Trial Tr. (6/20/19 p.m., Hawkins) at 113:5-22. When young people do not perceive

something as harmful, use increases. *Id.* Young people do not perceive opioids as harmful and the Abatement Plan seeks to address this risk factor. *Id.*

762. The State's experts designed the Abatement Plan with programs and interventions around these risk factors for OUD, among many others. Trial Tr. (6/20/19 p.m., Hawkins) at 114:1-6.

763. The Abatement Plan addresses both the scope and nature of the nuisance. Trial Tr. (6/20/19 p.m., Hawkins) at 114:7-10.

764. According to the 2014 paper authored by Defendants' former employee and expert, Dr. Moskovitz, "the economic burden of opioid misuse and abuse is substantial, with some cost estimates ranging from $50-75 billion annually in lost productivity, criminal justice expenditures, drug abuse treatments, and medical complications." Trial Tr. (6/28/19 p.m., Moskovitz) at 69:25-85:01; *see also* Ct. Ex. 141.

765. In Dr. Timothy Fong's April 2016 presentation to healthcare professionals, he stated that "in 2014, roughly 2 million Americans—or about nearly one percent of Americans met full criteria for some sort of addiction to opioid—prescription opioids." Ct. Ex. 0073 at 3:17-20.

766. In Oklahoma, sales of prescription opioids peaked around 2013. Trial Tr. (6/7/19 a.m., Nguyen) at 97:6-10. The rate of MMEs distributed per Oklahoman and the rate of unintentional opioid overdose deaths started to decrease from 2013 to 2017. Trial Tr. (6/7/19 a.m., Nguyen) at 87:2-6, 97:11-16.

767. These declines have followed from significant efforts the State undertook to abate the nuisance during this time period. Trial Tr. (6/7/19 a.m., Nguyen) at 97:11-16;

Trial Tr. (6/20/19 p.m., Hawkins) at 91:18-105:18.

768. In 2008, ODMHSAS applied for and was awarded a Strategic Prevention Framework-State Incentive Grant, after which the department conducted a statewide assessment that identified the prevention of underage drinking and prescription drugs as the two most pressing issues facing the State of Oklahoma. Trial Tr. (6/25/19 a.m., Commissioner White) at 29:15-30:16; Trial Tr. (6/20/19 p.m., Hawkins) at 77:12-78:11. In 2011, a report was published showing drug overdose deaths had surpassed motor vehicle accidents as the leading cause of accidental deaths in Oklahoma in 2009. Trial Tr. (6/25/19 a.m., Commissioner White) at 30:17-31:7; Trial Tr. (6/20/19 p.m., Hawkins) at 89:24-90:10. For decades prior, motor vehicle accidents had been the leading cause of accidental deaths in the State. Trial Tr. (6/25/19 a.m., Commissioner White) at 30:23-31:7.

769. To attempt to combat this nuisance, Oklahoma determined that oversupply of opioids was a primary issue the State had to address. Trial Tr. (6/25/19 a.m., Commissioner White) at 34:10-19. Oklahoma's public officers, including Commissioner White, had to determine what was causing opioid overdose deaths in the State of Oklahoma. Trial Tr. (6/25/19 a.m., Commissioner White) at 35:5-14. And, the State, through many agencies like ODMHSAS, undertook substantial efforts to implement programs, plans and measures to combat and mitigate the consequences of the nuisance. *See, e.g.*, Trial Tr. (6/25/19 a.m., Commissioner White) at 35:15-36:24, 40:22-45:24, 46:12-56:25, 58:9-60:24, 69:5-70:2; Trial Tr. (6/26/19 p.m., Commissioner White) at 45:13-46:4, 47:17-48:19, 53:20-56:22, 62:1-23; Trial Tr. (6/20/19 p.m., Hawkins) at 91:20-105:1; 107:4; 108:7; *see also* S-4738 (listing representative examples of actions taken by

the State to address the opioid epidemic); Ct. Ex. 97 at 1 (listing actions taken by the State to abate the nuisance through implementation of the State plans) and 2 (illustrating a timeline of actions the State has taken to combat the nuisance); & Ct. Ex. 116 at 676-692 (containing a detailed chart listing past actions the State had taken to combat the nuisance).

770. For example, in 2012, the State formed a Prescription Drug Working Group that identified a series of recommendations and issues to address and implement and proposed a "State plan to address prescription drug abuse." Trial Tr. (6/25/19 a.m., Commissioner White) at 40:22-44:19; Trial Tr. (6/20/19 p.m., Hawkins) at 92:2-94:3; *see also* S-4736. In 2016, the State released a second prescription drug plan for "reducing prescription drug abuse in Oklahoma" and "a review of progress and updated State plans." Trial Tr. (6/25/19 a.m., Commissioner White) at 45:12-24, 46:12-56:25; Trial Tr. (6/20/19 p.m., Hawkins) at 95:8-96:4; S-4737; *see also* Ct. Ex. 97 at 1 (illustrating some of the accomplishments that came out of the two State plans). Just a small sample of the accomplishments of these State plans included, opioid prescribing guidelines, a naloxone opioid reversal and overdose response program, legislation to enhance the PMP, the launch of a public education campaign, increasing the number of DEA waivered physicians capable of providing medication assisted treatment, safe storage and disposal programs, limits on hydrocodone refills and e-prescribing, data sharing, and provider education including practice dissemination. Trial Tr. (6/20/19 p.m., Hawkins) at 96:5-100:9.

771. And, in 2017, the Oklahoma Attorney General and Oklahoma Legislature assembled and convened the Oklahoma Opioid Commission, which issued a report that outlined detailed recommendations for policies, legislation, regulations and other programs

aimed at "combatting the opioid crisis in the State of Oklahoma[.]" Trial Tr. (6/25/19 a.m., Commissioner White) at 58:9-60:24; Trial Tr. (6/20/19 p.m., Hawkins) at 108:1-7; *see also* S-210.

772. These efforts have succeeded in "making a dent" or bending the curve in the rate of unintentional opioid overdose deaths in the State. Trial Tr. (6/25/19 a.m., Commissioner White) at 74:1-19; *see also, e.g.*, Trial Tr. (6/17/19 p.m., Beaman) at 73:20-74:22 (testifying that the State of Oklahoma's efforts have been "responsible for th[e] downward trend" in opioid overdose deaths in recent years); Trial Tr. (6/20/19 p.m., Hawkins) at 105:11-18 (The State's actions to address the nuisance were successful in reducing unintentional opioid overdose death by 43 percent).

773. However, the State has not been able to "make enough of a dent" to abate the nuisance, "significantly more" is necessary to do so. Trial Tr. (6/25/19 a.m., Commissioner White) at 74:11-19; *see also, e.g.*, Trial Tr. (6/17/19 p.m., Beaman) at 84:12-20. Opioid overdoses still remain too high and there is no doubt Oklahoma remains in an opioid crisis. Trial Tr. (6/20/19 p.m., Hawkins) at 105:11-24. The State also has seen an increase in non-prescription opioid deaths. *Id.*; *see also* Section I, *supra*.

774. The recent decline in opioid prescribing in the State of Oklahoma, without a corresponding increase in the number of patients complaining about pain, demonstrates that there has been and still is an oversupply of opioids. Trial Tr. (6/6/19 a.m., Mazloomdoost) at 71:13-24.

775. Since the rise in the negative consequences associated with the nuisance, the State has not had the resources to treat everyone who suffers from OUD. Trial Tr. (6/25/19

a.m., Commissioner White) at 93:24-94:4; 6/24/19 p.m., Hawkins) at 97:13-16 ("most people with opioid use disorder are not receiving treatment").

776. The State has stretched and continues to stretch its resources as far as possible to serve as many affected Oklahomans as possible in order to end and abate the nuisance, however, the State is "not able to meet the need with [its] limited resources." Trial Tr. (6/25/19 a.m., Commissioner White) at 93:24-94:4. The State has done the best it can with the few resources it has had. Trial Tr. (6/20/19 p.m., Hawkins) at 105:25-106:2.

777. Ms. Hawkins testified to the Herculean efforts the State and its citizens have taken to address the public nuisance Oklahoma faces:

> In this case, with the exception of a very few partners in the private sector, we've had to do it alone. And with very meager resources. It's been really through the effort and tenacity of many State employees and partners from the community, local non-profits, and the benevolent people of Oklahoma, who have come together to really fight this. And that's what we do as Oklahomans. We help each other out. We take care of ourselves. But in this case, this crisis has been completely overwhelming and it's totally insufficient at this point.

Trial Tr. (6/24/19 p.m., Hawkins) at 116:14:-117:4.

1. The State's Proposed Plan to Abate the Nuisance

778. Commissioner White, the "primary architect of the State's abatement plan," testified that the public nuisance in Oklahoma can be and "must be abated." Trial Tr. (6/25/19 a.m., Commissioner White) at 89:15-16, 101:13-102:4; Trial Tr. (6/26/19 p.m., Commissioner White) at 129:19-130:1.

779. Jessica Hawkins, the Senior Director of Prevention Services at ODMHSAS, and a principle developer of the State's Abatement Plan, testified that if the State

implements the services and programs in the Abatement Plan, the nuisance will be abated. Trial Tr. (6/24/19 p.m., Hawkins) at 114:16-21.

780. Dr. Beaman testified that, in his opinion, the nuisance in Oklahoma "[a]bsolutely" can be abated. Trial Tr. (6/17/19 p.m., Beaman) at 81:24-82:1.

781. Dr. Kolodny opined that he agreed with the proposed Abatement Plan of the State and is confident in Commissioner White. Trial Tr. (6/13/19 p.m., Kolodny) at 7:15-8:6.

782. Mr. Mendell testified the line items in the State's Abatement Plan are absolutely reasonable and necessary. Trial Tr. (6/18/19 a.m. Mendell) at 47:7-10. "Each line item is 100 percent I believe in. Every line item, my experience and my knowledge says each of those are needed." Trial Tr. (6/18/19 a.m. Mendell) at 47:10-12.

783. Mr. Mendell testified that after reading the abatement plan, he found it to be complete and Commissioner White's understanding of opioid addiction was evident in the plan. Trial Tr. (6/18/19 a.m. Mendell) at 84:4-85:10 ("It's not about drug education which has proven not to work frankly, research shows. But [the programs Terri recommends] have proven to work.").

784. As the President's Commission on Combating Drug Addiction and the Opioid Crisis found: "Historical precedent demonstrated that this crisis can be fought with effective medical education, voluntary or involuntary changes in prescribing practices, and a strong regulatory and enforcement environment." S-1574; *see also* Trial Tr. (6/3/19 p.m., J&J: Deem-Eshleman) at 68:5-9; *see also, e.g.*, Section C *supra*.

785. The first step the State's experts undertook to develop the plan was data assessment to understand the scope and nature of the problem; looking at State data on the nuisance, and understanding the many problems related to the nuisance. Trial Tr. (6/21/19 p.m., Hawkins) at 72:8-15 & 109:8-12. This data assessment involved looking at the data in key areas where Oklahoma had significant need, including opioid overdose death, hospitalizations, OUD, child removals within the child welfare system related to opioids and a host of other indicators, to understand the scope and nature of the nuisance to identify the areas that needed to be a part of the State's Abatement Plan. Trial Tr. (6/20/19 p.m., Hawkins) at 106:10-21.

786. The State's experts used a public health approach to develop the State's Abatement Plan. Trial Tr. (6/20/19 p.m., Hawkins) at 106:10-13. The public health model is a framework that preventionists use and a process to develop a plan, that first involves identifying the problem and understanding the scope and nature of that problem, looking at risk, what is driving the problem, the risk factors in the community, in a family, in a young person, and then identifying evidence-based interventions. Trial Tr. (6/20/19 p.m., Hawkins) at 85:24-86:7.

787. The experts drew upon best practice documents from Johns Hopkins, the White House, the Oklahoma Commission, the Surgeon General and the CDC, among others. Trial Tr. (6/21/19 p.m., Hawkins) at 72:8-15; *see also* Ct. Ex. 116. (containing the CDC, White House, Johns Hopkins and Surgeon General recommendations to abate the nuisance). The experts reviewed other State plans, academic literature, research, and produced an outline of recommendations. *Id.* The experts then engaged other stakeholders,

such as other State agencies and professionals, in reviewing and contributing to the recommendations. *Id.*

788. These best practice documents support many of the services and programs in the State's Abatement Plan. *See e.g.*, S-1574; S-210 and Ct. Ex. 116.

789. There are three pillars of the Abatement Plan. (6/20/19 p.m., Hawkins) at 114:21-22; *see also* Ct. Ex. 97 at 12 (illustrating the breakdown of services and distribution of resources in the Abatement plan). The first pillar is prevention. Prevention is essential to abating the nuisance. Trial Tr. (6/20/19 p.m., Hawkins) at 114:21-25. In order to truly abate the nuisance in Oklahoma, the State requires significant investment in prevention to prevent new cases of OUD. Trial Tr. (6/20/19 p.m., Hawkins) at 117:22-118:1.

790. The second pillar is treatment and recovery services— the most critical and pressing need in the Abatement Plan. Trial Tr. (6/20/19 p.m., Hawkins) at 115:1-3. Treatment is critical to urgently meet the needs of all Oklahomans who have OUD or are recovering from OUD. Trial Tr. (6/20/19 p.m., Hawkins) at 117:13-19.

791. The third pillar is overdose prevention and response. Naloxone and overdose prevention also are urgently needed. Trial Tr. (6/20/19 p.m., Hawkins) at 115:4-5;117:20-22.

792. These three pillars have been identified by the United States Department of Health and Human Services as the essential three components to have in addressing this public nuisance. Trial Tr. (6/20/19 p.m., Hawkins) at 115:4-8.

793. Another important component of the Abatement Plan is medical education, which is really a component of prevention and treatment. Trial Tr. (6/20/19 p.m., Hawkins)

at 115:9-15, 118:2-4. Many of the medical education components of the Plan are preventative in nature. Trial Tr. (6/20/19 p.m., Hawkins) at 115:9-15. By improving pain care, using safer and more effective pain care and reducing unnecessary exposures of pain patients to opioids, the State is preventing new cases of OUD. Trial Tr. (6/20/19 p.m., Hawkins) at 115:9-19. And, these components of the Plan also relate to treatment because they are ways in which the State can improve its healthcare system in appropriately treating OUD in the primary care office and vastly increase access to treatment in Oklahoma. Trial Tr. (6/20/19 p.m., Hawkins) at 115:15-19.

794. Another important component of the plan is around NAS, detecting it, documenting it and providing services to infants and their families. Trial Tr. (6/20/19 p.m., Hawkins) at 115:20-22.

795. Finally, there are two additional categories. The first is data collection, including reporting and conducting research related to the nuisance. Trial Tr. (6/20/19 p.m., Hawkins) at 115:23-116:4. Every federal plan addressing the nuisance highly recommends improving a state's surveillance system, data collection and reporting on the nuisance. Trial Tr. (6/20/19 p.m., Hawkins) at 115:20-116:4. The second category is enforcement and regulatory services and programs. Trial Tr. (6/20/19 p.m., Hawkins) at 116:5-14. Prescription opioids are schedule II narcotics. *Id.* The State needs to have the requisite resources in place to enforce laws surrounding opioids and to regulate the products with the rigor that is required. *Id.*

796. Commissioner White testified that the State's Abatement Plan is reasonable and necessary to abate the nuisance in Oklahoma. *See, e.g.*, Trial Tr. (6/25/19 a.m.,

Commissioner White) at 100:3-7; Trial Tr. (6/26/19 p.m., Commissioner White) at 129:21-130:1.

797. Ms. Hawkins testified that each of the programs and services in the State's Abatement Plan are necessary to abate the nuisance. Trial Tr. (6/21/19 p.m., Hawkins) at 51:8-15. Ms. Hawkins also testified that each of the costs in the Abatement Plan to implement the services and programs in the plan are reasonable and necessary costs to implement the Abatement Plan. Trial Tr. (6/21/19 p.m., Hawkins) at 51:16-52:5. Many of the costs in the State's Abatement plan are conservative. *Id.*

798. The State's Abatement Plan is a statewide plan that will benefit all citizens of the State. Trial Tr. (6/25/19 a.m., Commissioner White) at 100:3-101:12.

799. The consequences of not abating this nuisance are dire, as Commissioner White testified:

> It will take 30 years to abate. And if we do not abate it, more Oklahomans will die, more Oklahomans will develop opioid use disorder, more children will be born with neonatal abstinence syndrome, more children will be sitting in classrooms misusing prescription medications and turning on the addiction circuitry in their brain. More parents will end up incarcerated, who have struggled with opioid use disorder, those children will end up in foster care and start this cycle over. We will continue to see an increase in the number of youth who are attempting suicide as a result of their parents' opioid use and a host of other negative consequences.

Trial Tr. (6/25/19 a.m., Commissioner White) at 101:19-102:4; *see also, e.g.* Trial Tr. (6/19/19 p.m., Ratcliff) at 27:19-28:16, 64:3-18.

800. The programs and services within the Abatement Plan and the Abatement Plan overall must be in place for 30 years to abate the nuisance, meaning negative outcomes and consequences from this crisis are returned to pre-1996 levels. Trial Tr. (6/21/19 p.m.,

Hawkins) at 47:21-51:15 & 67:22-68:3; Trial Tr. (6/24/19 a.m., Hawkins) at 61:19-20 & 62:14-18.

801. To abate the nuisance, levels of opioid-related negative consequences need to return to the levels at which they existed prior to the late 1990s, when the opioid oversupply through overprescribing trend began and continued to steadily increase. Trial Tr. (6/26/19 a.m., Commissioner White) at 111:20-113:9.

802. The State's experts opined with confidence that through implementation of the Abatement Plan at the 30-year interval, the nuisance can be abated such that negative outcomes and consequences of the crisis return to re-1996 levels. Trial Tr. (6/21/19 p.m., Hawkins) at 67:22-24. For example, one measurable outcome of the Abatement Plan where the State expects to see is a reduction in new cases of OUD. Trial Tr. (6/21/19 p.m., Hawkins) at 69:16-20. The nuisance will be abated when new cases of OUD, at a minimum, reach pre-1996 levels. Trial Tr. (6/21/19 p.m., Hawkins) at 70:6-10.

803. Another measurable outcome for the Abatement Plan is new cases of NAS in Oklahoma. Trial Tr. (6/21/19 p.m., Hawkins) at 69:16-20. When the nuisance is abated, the incidence of NAS will decrease to pre-1996 levels, minimally. Trial Tr. (6/21/19 p.m., Hawkins) at 70:14-19. In 1996, there were 9 NAS births to SoonerCare members, whereas in 2017, SoonerCare members had 498 NAS births. Tr. (6/24/19 p.m., Hawkins) at 92:4-10; S-4054; Ct. Ex. 56 (illustrating increase in NAS births).

804. Another measurable outcome is unintentional opioid overdose death. The State analyzed opioid overdose deaths from 1994-1996 in the Piercefield study. Trial Tr.

(6/24/19 p.m., Hawkins) at 92:4-10. During that time period, there were only a couple dozen opioid overdose deaths. *Id.*

805. There is no evidence that the nuisance in the State of Oklahoma is ending. Trial Tr. (6/21/19 p.m. Hawkins) at 48:4-5. To the contrary, there have been reports that have predicted a worsening of the nuisance over the next ten years and calls for cautious optimism for any sort of gains that have been made to address the nuisance. Trial Tr. (6/21/19 p.m.. Hawkins) at 48:4-10; Trial Tr. (6/24/19 p.m., Hawkins) at 34:7-16.

806. For example, in Oklahoma, while prescription unintentional opioid overdose deaths have decreased, there has been an increase in unintentional illicit opioid overdose deaths in recent years. Trial Tr. (6/24/19 p.m., Hawkins) at 35:19-25.

807. Without the Abatement Plan and the resources contained therein and being able to bring these services on the scale set forth in the Plan, services that have shown success, there will not be a marked improvement in the nuisance anytime soon. Trial Tr. (6/21/19 p.m.. Hawkins) at 48:11-21.

808. Looking at other public health crises, such as tobacco cessation and control as an example, in the United States and in Oklahoma, while there have been improvements in the last several decades, that public health crisis continues to be addressed today. Trial Tr. (6/21/19 p.m., Hawkins) at 48:22-49:2. The heroin epidemic of the 1970s also is informative in illustrating how long Oklahomans will struggle with the nuisance. Trial Tr. (6/11/19 a.m., Kolodny) at 82:18-83:13. The communities hit hard by the heroin epidemic in the 1970s are still feeling the effect of the epidemics many decades later. Trial Tr. (6/11/19 a.m., Kolodny) at 82:18-83:13. The current nuisance is on a scale far greater than

the heroin epidemic of the 1970s. Trial Tr. (6/11/19 a.m., Kolodny) at 82:18-83:13. Dr. Kolodny testified, "all of us, everyone in this room will be experiencing the effects of this epidemic for the rest of their lives." Trial Tr. (6/11/19 a.m., Kolodny) at 83:11-13.

809. This Oklahoma nuisance is overwhelming and, in many ways, a novel public health crisis. Trial Tr. (6/21/19 p.m., Hawkins) at 49:3-5.

810. It has taken at least twenty years to develop the nuisance in Oklahoma, and it will take longer than that to abate it. Trial Tr. (6/21/19 p.m., Hawkins) at 49:6-8. The nuisance has caused many adverse consequences, for example, opioid overdose death and related harm, addiction, unnecessary exposure to opioids, and nonmedical use and misuse that is occurring that may lead to OUD. Trial Tr. (6/21/19 p.m., Hawkins) at 49:9-17.

811. A person living with OUD today will have this condition for the rest of their life because it is a chronic disorder. Trial Tr. (6/21/19 p.m., Hawkins) at 49:17-20. If a person has OUD and is receiving medication assisted treatment, it is likely that treatment will continue to require medication, in certain cases for the duration of their life. Trial Tr. (6/21/19 p.m., Hawkins) at 49:21-24. In many cases it is not only a chronic condition, but a relapsing condition. Trial Tr. (6/21/19 p.m., Hawkins) at 49:24-50:1; Trial Tr. (5/28/19 p.m., Rojas) at 58:1-2. Continual services will be required for people already diagnosed with OUD and the many Oklahomans undiagnosed and untreated thus far who will require treatment in the future. Trial Tr. (6/21/19 p.m., Hawkins) at 50:1-4; *see also* Trial Tr. (5/28/19 p.m., Rojas) at 57:20; *see also, e.g.,* Trial Tr. (6/7/19 a.m., McGregor) at 40:2-16; Trial Tr. (6/14/19 a.m., Hoos) at 73:8-12.

812. "Addiction can be treated, but it is difficult to treat." Trial Tr. (6/25/19 a.m., Commissioner White) at 68:24. Addiction does not "run a course like a cold or a flu in a few days." Trial Tr. (6/25/19 a.m., Commissioner White) at 68:25. Addiction "is a lifelong disease" once a person's "addiction circuitry is turned on." Trial Tr. (6/25/19 a.m., Commissioner White) at 69:1-4, 91:20-25; *see also, e.g.*, Trial Tr. (6/14/19 a.m., Hoos) at 81:14-25, 84:3-12 (testifying that her opioid addiction is a lifelong disease that she has to work on every day). "People can and do recover and live a life in recovery, but relapse is common, and it is a disease [that] people have for the rest of their life." Trial Tr. (6/25/19 a.m., Commissioner White) at 69:2-4. "Treatment for opioid use disorder" must continue for an individual's lifetime. Trial Tr. (6/17/19 p.m., Beaman) at 58:1-59:10 & 56:21-57:10 (OUD is a "lifelong illness" that requires "constant vigilance in treatment.").

813. Federal recommendations to combat the nuisance agree that "[a]ddiction is a chronic relapsing disease of the brain which affects multiple aspects of a person's life." S-1574 at 68.

814. To change public perception of the stigma of addiction requires a large societal change in patterns of thought. Trial Tr. (6/18/19 a.m. Mendell) at 80:22-24 ("That's a change in the way we think. And that needs to change and that is not going to happen overnight."). Changing the way the public thinks about addiction takes a long time. Looking at other public health crises such as HIV-AIDS, it can take decades to change these societal norms. Trial Tr. (6/18/19 a.m. Mendell) at 73:10-15 ("When you look at those societal change movements, they took decades."); Trial Tr. (6/18/19 a.m. Mendell) at 73:24-74:2 ("Stigma reduction, when you look at the time it took to educate the public

about this disease, when it talked about HIV-AIDS and those others that I mentioned, took decades.").

815. Mr. Mendell extensively researched stigma reduction and testified that "[t]o change behavior it's a three-step process. It's knowledge, it changes attitudes. Change in knowledge, changes attitudes. Changes in attitudes changes behavior." Trial Tr. (6/18/19 a.m.) at 78:18-21. Mr. Mendel further testified, "The length of time it takes to change knowledge, or to change attitudes…which then changes behavior, it's sequential. It's impossible to have that happen in a couple of years." Trial Tr. (6/18/19 a.m. Mendell) at 77:22-25; *see also* Trial Tr. (6/18/19 a.m. Mendell) at 77:17-25 & 78:7-11.

816. Another important reason the nuisance will take 30 years to abate is because it will take that long to educate and train healthcare professionals on topics including, but not limited to addiction, non-pharmacological or non-opioid therapies to treat pain, safe prescribing and critical appraisal of scientific evidence. Trial Tr. (6/20/19 a.m., Croff) at 69:20-23 & 84:8-85:4; *see* also Trial Transcript (6/17/19 p.m. Beaman) at 68:7-14 (the only way to return to narcotic conservatism is to teach medical students to prescribe conservatively). Dr. Kolodny testified that one of the most important strategies to abate the crisis will be to premote much more cautious prescribing so that new patients will not develop new cases of OUD. Trial Tr. (6/11/2019 a.m, Kolodny) at 82:1-16. Medical education and training is critical to preventing more people from becoming opioid addicted. *Id.*; Trial Tr. (6/20/19 p.m., Hawkins) at 115:9-15; 118:2-6.

817. Another critical reason the nuisance will take 30 years to abate is the intergenerational impact of OUD and opioid overdose death and other associated

consequences of the nuisance. Trial Tr. (6/21/19 p.m., Hawkins) at 50:5-12; Trial Tr. (6/24/19 p.m., Hawkins) at 55:24-56:3.

818. For example, the impact of NAS is long-lasting on the future development of those infants born with this condition and their families. Trial Tr. (6/21/19 p.m., Hawkins) at 50:5-12; Trial Tr. (6/19/19 p.m., Ratcliff) at 36:3-37:3; 46:24-49:6.

819. The number of babies born with NAS has dramatically increased from 1996-1997. Trial Tr. (6/19/19 p.m., Ratcliff) at 24:23-25:12; 46:1-15; S-4054; see also Ct Ex. 56 (illustrating the rise in NAS births).

820. There is also the trauma caused because of the separation of children and parents due to parental opioid use and abuse. Trial Tr. (6/21/19 p.m., Hawkins) at 50:5-12.

821. OUD can also lead to child death, child abandonment and parental overdose. Trial Tr. (6/19/19 p.m., Ratcliff) at 28:14-29:7; 35:5-36:8; 38:1-11; 39:2-5; 46:6-15; 54:10-55:21; 64:3-9.

822. The U.S. Commission recognized, "[c]hildren who are in foster care are at a greater risk for mental health problems, poor physical health, experience more adverse family experiences and more likely to be suspended from school." S-1574 at 81.

823. The nuisance has caused an influx of children in the foster care system in Oklahoma. Trial Tr. (6/19/19 p.m., Ratcliff) at 60:9-14.

824. The number of child removals due to substance abuse has dramatically increased over time. Trial Tr. (6/19/19 p.m., Ratcliff) at 53:1-19.

825. There is a shortage of homes and an overabundance of need for children in foster care as a result of the nuisance in Oklahoma. Trial Tr. (6/19/19 p.m., Ratcliff) at 49:17-19; 53:1-19; 60:9-14; 64:3-9.

826. There is also the consideration of the intergenerational trauma that comes from parental addiction and how future generations are going to deal with this trauma. Trial Tr. (6/21/19 p.m., Hawkins) at 50:14-51:7. The complete ramifications of this trauma on children is still not fully understood. *Id.*

827. A 2019 JAMA study on the risks to children from parental use of opioids showed the children of parents who were on opioids for a year or more had "double the risk" for suicide attempts. *Id.*; Trial Tr. (6/25/19 a.m., Commissioner White) at 80:11-81:10; *see also* Ct. Ex. 112 (illustrating data in aid of Commissioner White's testimony).

828. Over the past two decades, the State of Oklahoma has consistently ranked near or at the top of the nation in adverse childhood experiences, which measure traumatizing experiences for children and include growing up in a household with someone experiencing a substance abuse or mental health problem. *See, e.g.*, Trial Tr. (6/17/19 p.m., Beaman) at 28:21-29:23. This consistently high level of parental substance abuse and mental health problems "dramatically increases" the risk for and likelihood that Oklahoma children will grow up to suffer from addiction, go to prison or otherwise encounter social, legal or medical difficulties in adulthood. *See, e.g.*, Trial Tr. (6/17/19 p.m., Beaman) at 28:21-30:12; Trial Tr. (6/25/19 a.m., Commissioner White) at 93:7-16, 96:24-97:17, 101:13-102:4.

829. The State of Oklahoma also has one of the highest incarceration rates for both men and women, and this incarcerated population of Oklahomans is primarily comprised of "men and women who are in need of treatment for mental illness and addiction." Trial Tr. (6/25/19 a.m., Commissioner White) at 18:5-8.

830. In 2014, 19.1% of incarcerated women in Oklahoma reported using opioids other than heroin more than once a week prior to their incarceration. Trial Tr. (6/25/19 a.m., Commissioner White) at 79:11-16. These women had 127 minor children, who ended up in non-familial foster care following the incarceration of their mothers. Trial Tr. (6/25/19 a.m., Commissioner White) at 79:16-21; *see also* Ct. Ex. 112 (depicting these data).[68]

831. The State will continue to see evidence that the nuisance is growing and causing harm and will continue to have adverse effect on Oklahomans for many years to come. Trial Tr. (6/21/19 p.m., Hawkins) at 51:4-7.

832. The people on the frontlines of this nuisance every day in Oklahoma, who have decades of experience in substance use treatment and prevention, agree that based on all of their experience, wealth of knowledge, training, skills, education and understanding of the scope and nature of the nuisance, the Abatement Plan needs to be in effect for 30 years to abate the nuisance. Trial Tr. (6/24/19 p.m., Hawkins) at 117:24-118:5; Trial Tr. (6/25/19 a.m., Commissioner White) at 101:15-102:4.

[68] These statistics do not include children of incarcerated mothers who were placed in familial foster care or otherwise placed with a biological parent or grandparent following their mother's incarceration. Trial Tr. (6/25/19 a.m., Commissioner White) at 79:17-19.

833. "There are Oklahomans who desperately, desperately need the prevention and treatment services and all the other services in th[e State's] abatement plan in order to save their life and all the other negative consequences." Trial Tr. (6/25/19 a.m., Commissioner White) at 110:21-112:7.

834. Commissioner White testified that, in her opinion, the State's Abatement Plan will abate the nuisance, save countless lives of Oklahomans in the future, save countless people from becoming addicted to opioids in the future, and eliminate the negative impact this nuisance has had on the State of Oklahoma. Trial Tr. (6/25/19 a.m., Commissioner White) at 112:8-17; *see also, e.g.*, Trial Tr. (6/26/19 p.m., Commissioner White) at 129:21-130:1. Oklahomans' lives can be saved if the State obtains the resources needed "to use evidence-based programs to abate this crisis." Trial Tr. (6/25/19 a.m., Commissioner White) at 117:13-118:14.

835. Through the selection of evidence-based interventions and best practices that have demonstrated outcomes in each areas of the Plan, the experts opine they are confident abatement will occur. Trial Tr. (6/21/19 p.m., Hawkins) at 66:12-15, 66:21-25. The services in the Plan have been tested for successful outcomes in the State of Oklahoma and other states. *Id.*; Trial Tr. (6/21/19 p.m., Hawkins) at 67:6-12. Some of them have undergone rigorous evaluations. *Id.* Through the selection of those evidence-based interventions, seeing their outcomes in other states and other settings, the experts are confident the State can realize those achievements in the 30-year period of the Abatement Plan. Trial Tr. (6/21/19 p.m., Hawkins) at 67:6-12. 67:22-68:3.

836. While the nuisance will begin to be abated during the 30 years of the Plan, the services to abate the problem have continual costs overtime. (6/21/19 p.m., Hawkins) at 62:15-20. The State has to continue to provide treatment services and prevention services over time in order obtain the benefits. Trial Tr. (6/21/19 p.m., Hawkins) at 64:3-7, 64:18-19. These are public health approaches to addressing the nuisance, which require continual provision of services through time. Trial Tr. (6/21/19 p.m., Hawkins) at 81:17-19. "You can't take your foot off the gas." *Id.*

837. The costs and interventions in the Abatement Plan are necessary and reasonable relative to the nuisance in Oklahoma. Trial Tr. (6/21/19 p.m., Hawkins) at 80:20-22.; Trial Tr. (6/24/19 a.m., Hawkins) at 25:6-21. It takes many people to employ the services and programs necessary to abate the nuisance. *Id.* The costs and interventions are relative to the scope of the nuisance that has been created and the response it has required. *Id.*

838. The scope of the nuisance is vast, and there are presently great unmet needs and interventions that must be in place to meet those needs to abate the nuisance. *Id.* Implementing these interventions requires the appropriate amount of personnel in place to provide these necessary interventions. *Id.* It also requires coordinating services. Trial Tr. (6/24/19 a.m., Hawkins) at 26:4-14. When the State contracts for a service, it requires personnel in place to oversee that contract and monitor compliance to ensure quality services are being provided. *Id.* Implementation requires monitoring, contract compliance, oversight training, technical assistance, program administration, reporting, and

evaluation—all are necessary services that accompany a plan for a nuisance of this size. *Id.*

839. Defendants' corporate representative and expert testified under oath in a deposition that the nuisance is complex, will be expensive to abate, and he does not know how to abate it. Trial Tr. (6/24/19 a.m., Hawkins) at 111:2-13; 113:14-21.

840. Although Defendants agree there is an opioid crisis in the State of Oklahoma, *see, e.g.*, Trial Tr. (5/29/19 p.m., Deem-Eshleman) at 15:18-16:04, Defendants did not submit or put forward any abatement plan to end this nuisance or otherwise offer an alternative to the State's Abatement Plan. Trial Tr. (6/21/19 p.m., Hawkins) at 52:19-54:2; Trial Tr. (6/24/19 a.m., Hawkins) at 99:21-100:9.

841. The various plans, programs and services included in the State's Abatement Plan are discussed below.

a. <u>OUD Prevention, Treatment & Recovery Services</u>

842. To abate the nuisance, there must be prevention of further OUD and treatment of current OUD. Trial Tr. (6/11/19 a.m., Kolodny) at 81:01-82:16.

843. "Treatment is health services. Public health is prevention." Trial Tr. (6/25/19 a.m., Commissioner White) at 27:8-10.

844. Expanded access to treatment is necessary to abate the public nuisance. *See* Trial Tr. (6/13/19 a.m., Kolodny) at 125:4-19. Treatment, including "medication-assisted treatment," is "one of the most essential components" of abating the opioid crisis in Oklahoma. Trial Tr. (6/25/19 a.m., Commissioner White) at 91:17-19; Trial Tr. (6/20/19 p.m., Hawkins) at 117:15-20 (treatment is critical to "urgently meet the needs of all of the

people in Oklahoma who had opioid use disorder and [are] developing opioid use disorder and who are recovering from opioid use disorder") & 115:1-3 ("treatment and recovery services [are] perhaps the most critical and pressing need we have in this abatement plan"; *see also, e.g.*, Trial Tr. (6/14/19 a.m., Hoos) at 83:7-84:12 (testifying that treatment for opioid addiction is critical); Trial Tr. (7/1/19 p.m., Fong) at 35:3-4 ("You have to have treatment availability to treat opioid use disorder").

845. Prevention also is essential to abate the nuisance. Trial Tr. (6/20/19 p.m., Hawkins) at 117:22-118:1 ("In order to truly abate the crisis and end the crisis in the State of Oklahoma, we have to have a significant investment in prevention, really moving upstream as much as possible to prevent new cases of addiction.").

846. Prevention "is an evidence-based science." Trial Tr. (6/25/19 a.m., Commissioner White) at 95:15. Proper prevention services "must be delivered by trained professionals who understand evidence-based prevention, treatment, overdose prevention. It cannot be administered or delivered by individuals who do not have that training, knowledge, and skill set." Trial Tr. (6/25/19 a.m., Commissioner White) at 99:3-15.

847. The President's Commission on Combating Drug Addiction and the Opioid Crisis emphasizes that "to address the opioid and addiction epidemic, it is vital to make substance use and misuse prevention a much higher priority and stop the pipeline into addiction." S-1574 at 40.

848. The State's proposed Abatement Plan includes many programs and services designed to address the need for OUD prevention, treatment and recovery services.

849. In Dr. Beaman's opinion, the treatment and prevention programs and services set forth in the State's abatement plan are "not only reasonable and necessary, but critical" to abate the nuisance. Trial Tr. (6/17/19 p.m., Beaman) at 83:17-20; Trial Tr. (6/13/19 p.m., Kolodny) at 125:15-19.

850. Addiction is a disorder, which devastates brain processes that are "important and vital to our survival and our ability to be productive citizens." Trial Tr. (5/28/19 p.m., Rojas) at 47:17-22.[69]

851. Addiction is a "chronic and relapsing disorder." Trial Tr. (5/28/19 p.m., Rojas) at 58:1-2.[70]

852. "[T]here are some medications that are so highly addictive that that -- that the properties of that substance really can sort of even trump these other kind of factors, these psychological and emotional factors that these individuals have." Trial Tr. (5/28/19 p.m., Rojas) at 52:15-19.

853. Opioids are such drugs. Opioid addiction differs from addiction to other substances because, for example, someone who relapses on opioids, as opposed to alcohol, has a very high risk of death due to overdose. Trial Tr. (6/17/19 p.m., Beaman) at 59:17-

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[69] The State of Oklahoma "has historically high rates for substance abuse" and "is predisposed to having higher rates of trauma and to have higher rates of addiction." Trial Tr. (6/25/19 a.m., Commissioner White) at 97:3-17.

[70] The Court recognized Dr. Julio Rojas as an expert in addiction and the treatment of addiction. Trial Tr. (5/28/19 p.m., Rojas) at 46:1-6. Dr. Rojas has worked at the OU Health Sciences Center in Oklahoma City since 2005 as a Professor in the Department of Psychiatry and Behavioral Sciences with a specialty in addiction and the treatment of addiction. Trial Tr. (5/28/19 p.m., Rojas) at 36:9-15, 37:13-46:7. Dr. Rojas' *curriculum vitae* was admitted into evidence as S-4730. *See* Trial Tr. (5/28/19 p.m., Rojas) at 36:17-46:7.

61:8 (explaining the nuances of opioid addiction, including severe withdrawals that "cause individuals to seek out more opioids"); *see also, e.g.*, Trial Tr. (5/28/19 p.m., Rojas) at 58:9-11 ("The scary thing with opioids . . . is that when [individuals] relapse, there's the possibility they could end up dead").

854. Opioids are different from other drugs because of "the intensity of that urge and that craving . . . [and] the intense euphoria that [individuals] feel when they are under the influence of that drug." Trial Tr. (5/28/19 p.m., Rojas) at 58:12-18.

855. Addiction results in a "hijacking effect" on the brain. Trial Tr. (5/28/19 p.m., Rojas) at 55:18-23. It is something that the addicted person and his or her family will have to deal with for an entire lifetime and impacts generations. Trial Tr. (5/28/19 p.m., Rojas) at 57:20; *see also, e.g.,* Trial Tr. (6/7/19 a.m., McGregor) at 40:2-16; Trial Tr. (6/14/19 a.m., Hoos) at 73:8-12.

856. Addiction results in an individual "need[ing] those substances to function. They need those substances to show up to work. They need those substances to conduct surgery. They need those substances to dispense medicines at a pharmacy. They are required. And when they are not in the individual's body, they become, say -- they have withdrawal symptoms." Trial Tr. (5/28/19 p.m., Rojas) at 56:3-10.

857. Addiction "is not a rational or logical process. These are fundamental changes, structurally and chemically in the brain that render an individual, addict them, enslave them, forever changed by this process because there's no cure." Trial Tr. (5/28/19 p.m., Rojas) at 57:6-10. The chemical pathways formed in the brain of a person with addiction affect the individual's decision-making and cause them to prioritize access to

substances "over everything else" in their life—"their husband, their children, their job, really everything." Trial Tr. (6/17/19 p.m., Beaman) at 51:24-53:1.

858. Addiction is "a disease that disrupts the very – the very thing that makes [us] human, the ability to control their conduct, the ability to be socially productive and helpful and contribute to their community." Trial Tr. (5/28/19 p.m., Rojas) at 59:22-25.

859. Addiction changes brain chemistry similar to the being brain damaged. Trial Tr. (5/28/19 p.m., Rojas) at 62:8-16. The change and damage to an individual's brain caused by addiction can be so severe that it requires the same type of treatment as an individual who sustained a traumatic brain injury. Trial Tr. (6/17/19 p.m., Beaman) at 55:9-56:20.

860. Once the "addiction circuitry" is turned on in an individual's brain, addiction "is a disease like any other disease." Trial Tr. (6/25/19 a.m., Commissioner White) at 52:14-25; *see also, e.g.*, Trial Tr. (6/17/19 p.m., Beaman) at 53:5-9. As Commissioner White testified:

> [D]iabetes is a disease where your pancreas isn't secreting the right amount of insulin. And when you look at someone who's struggling with diabetes, you never look at them and say, Just make your pancreas secrete insulin, right? We understand it's a disease and people need medical care. Shouldn't be a life sentence. Shouldn't be something people are ashamed of. It's a treatable disease. Addiction is the same type of disease. It's just instead of the pancreas, it's the brain. And so treatment is treating the addiction circuitry going on in the brain. And fortunately, in the case of opioid addiction, there are medications – medication-assisted treatment that can be very helpful in that treatment as well.

Trial Tr. (6/25/19 a.m., Commissioner White) at 53:1-16

861. Turning "on the addiction circuitry in someone's brain and creating a lifelong disease, a chronic disease that Oklahomans can die from, is certainly an injury." Trial Tr. (6/25/19 a.m., Commissioner White) at 105:23-106:4; Trial Tr. (6/26/19 a.m., Commissioner White) at 37:11-15; Trial Tr. (6/17/19 p.m., Beaman) at 61:9-62:17 (explaining that the brain of a person addicted to opioids has "been changed forever," which prevents them from simply making a decision to stop using opioids). Opioid use disorder, in particular, is a "lifelong illness" that requires "constant vigilance in treatment." Trial Tr. (6/17/19 p.m., Beaman) at 56:21-57:10.

862. "Opioid addiction is a brain disease with behavioral manifestations. And the only way that one can make the diagnosis is by monitoring behavior." Ct. Ex. 2 (Portenoy) at 171:7-10. Addiction is a "very difficult" and "very serious disease." Ct. Ex. 2 (Portenoy) at 172:22-23. The "consequences of addiction" are "bad" and "tragic" and can lead to crime, death and things like engaging in prostitution or human trafficking. Ct. Ex. 2 (Portenoy) at 173:24-174:12.

863. Addiction can rip families apart, cause people to lose their jobs, destroy marriages, destroy families and destroy communities. Ct. Ex. 2 (Portenoy) at 174:15-24.

864. Addiction is powerful, evil and affects every aspect of life. *See, e.g.*, Trial Tr. (6/19/19 p.m., Ratcliff) at 17:10-18. It does not discriminate. *See id.*

865. For example, OUD can cause a dedicated mother and leader of parent teacher organizations to choose opioid pills over her children. *See, e.g.*, Trial Tr. (6/14/19 a.m., Hoos) at 60:22-69:16, 77:14-79:11.

866. Kristi Hoos is a lifelong Muskogee resident and former nurse, who has been married to a doctor for twenty-one (21) years and has two children. *See* Trial Tr. (6/14/19 a.m., Hoos) at 60:22-62:7. She testified she was raised right and was a good wife and excellent mother before she became addicted to prescription opioids. *Id.* at 62:18-64:6. The opioids that she became addicted to were prescribed by a doctor for back pain. *See id.* at 66:18-67:7. She testified that her pain only got worse when she took opioids, she developed terrible withdrawals from a fentanyl patch, and when she ran out of opioids, she would not get out of bed until she could fill her next prescription for opioids. *See id.* at 68:15-73:18.

867. Ms. Hoos never believed she would become addicted to drugs but realized opioid addiction can happen to anyone while she was sitting next to a surgeon, another nurse and a hairdresser in rehabilitation for opioid addiction. *See* Trial Tr. (6/14/19 a.m., Hoos) at 64:7-67:19, 77:14-79:11.

868. Ms. Hoos testified about the dramatic effect that having to miss her child's birthday because she was in rehab for opioid addiction had on her and her family. *See* Trial Tr. (6/14/19 a.m., Hoos) at 80:8-81:1. However, rehabilitation and treatment saved her life. *See id.* at 81:14-84:12.

869. Another example presented at trial was the story of Austin Box, a former star athlete and football player at the University of Oklahoma, who died of an opioid overdose in 2011 after having no prior history of drug abuse or mental health problems. *See, e.g.*, Trial Tr. (5/29/19 a.m., Box) at 7:6-13:21.

870. Craig Box, a lawyer from Enid, Oklahoma and the father of Austin Box, testified about Austin's upbringing and academic and athletic accomplishments, the effect

that losing his son to opioids has had on himself and his family, and how the Box family has courageously sought to fight the opioid crisis in Oklahoma through education. *See* Trial Tr. (5/29/19 a.m., Box) at 6:17-15:19. A video used by the Austin Box 12 Foundation, as well as Commissioner White, illustrating Austin's story was subsequently marked and accepted as Court Exhibit 115 by the Court.

871. Following their son's death, Mr. and Mrs. Box started the Austin Box 12 Foundation in order to educate and warn parents about how highly addictive prescription opioid drugs are because "[p]eople just don't understand what they can do and how quickly they can do it." *See* Trial Tr. (5/29/19 a.m., Box) at 13:1-15:8 (testifying further that you "don't have to look" hard for opioids in Oklahoma because "they're just everywhere" and "people don't understand that").

872. Another example is John McGregor, a lifelong resident of Norman, Oklahoma, whose family owns an auto repair shop and a horse ranch. *See* Trial Tr. (6/7/19 a.m., McGregor) at 6:9-22. Mr. McGregor testified that despite going to the same church his whole life, having never been in any trouble before, and being raised right, he became addicted to opioids after the first pill he took as prescribed by a doctor. *See id.* at 7:9-11:14, 39:20-40:4. As Mr. McGregor kept taking opioids, his pain became worse than it was originally, but he had to take more and more pills and switch to higher dosages as his tolerance increased. *See id.* at 11:25-15:1. While Mr. McGregor never thought addiction could happen to him, it turned his life upside down after his first opioid prescription. *See id.* at 15:2-39:16. It caused him to become a poor father, neglect his children, lose his job,

take heroin, and commit crimes. *See id.*[71] Mr. McGregor credits Oklahoma drug courts with saving his life, as they allowed him to obtain treatment, learn about his addiction and the effects it has on the community, and make amends with the people he had hurt. *See id.* at 26:1-27:8. At the time of trial, Mr. McGregor had been sober for over five years, had reunited with his family, had become an ordained pastor, and was running an addiction recovery class and volunteer program at the Cleveland County jail. *See id.* at 26:11-30:17.

873. Addiction has three phases: the "honeymoon stage, the learning and memory phrase [sic], and then the avoidance of withdrawal symptoms" phase. Trial Tr. (5/28/19 p.m., Rojas) at 76:20-23.

874. In the final phase, an individual is trying to "avoid feeling sick and trying to get through each day, trying to function. There's no more euphoria. It's just a vicious cycle from here on out." Trial Tr. (5/28/19 p.m., Rojas) at 58:24 – 59:3

875. Addiction treatment provides "a stay of execution every day provided that you do certain things; provided you go to meetings; provided you go to therapy; provided you engage in recoveries." Trial Tr. (5/28/19 p.m., Rojas) at 57:20-24.

876. Once the "addiction circuitry is turned on" in a person's brain, the only "evidence-based intervention we have is treatment." Trial Tr. (6/25/19 a.m., Commissioner White) at 91:21-23.

[71] Though he ultimately began taking heroin, Mr. McGregor testified that he never took fentanyl because he and the individuals with whom he associated were too scared of it and believed it was "next level" and a "death sentence." *See* Trial Tr. (6/7/19 a.m., McGregor) at 37:20-38:8.

877. Medication-assisted treatment (also known as MAT) is a "gold standard of care." Trial Tr. (6/25/19 a.m., Commissioner White) at 91:25-92:2.

878. Medication-assisted treatment "can make a significant difference in the fight for recovery for Oklahomans." Trial Tr. (6/25/19 a.m., Commissioner White) at 92:4-6; *see also, e.g.*, Trial Tr. (7/1/19 p.m., Fong) at 137:9-10 (agreeing MAT is needed).

879. The U.S. Commission agrees "MAT for OUD is associated with decreases in opioid use, opioid-related overdose deaths, criminal activity, and infectious disease transmission, while improving social functioning and retention in treatment." S-1574 at 69.

880. Presently in Oklahoma, finding treatment for people suffering from OUD is difficult and expensive. Trial Tr. (6/19/19 p.m., Ratcliff) at 16:10-13.

881. OUD is a difficult disease to treat. *See, e.g.*, Trial Tr. (5/28/19 p.m., Rojas) at 64:11-12. It also is an expensive disease to treat. *See, e.g.*, Trial Tr. (5/28/19 p.m., Rojas) at 64:13-14.

882. While medication-assisted treatment is expensive, that expense "is nowhere near the cost of leaving [OUD] untreated." Trial Tr. (6/25/19 a.m., Commissioner White) at 92:8-11.

883. However, addiction is not cured after rehab. Trial Tr. (5/28/19 p.m., Rojas) at 69:6–21. Addiction is "a chronic illness that requires chronic management." Trial Tr. (5/28/19 p.m., Rojas) at 69:18-21; *see also, e.g.*, Trial Tr. (7/1/19 p.m., Fong) at 29:22-30:9 (testifying that OUD is a "chronic condition" that "does not have a cure").

884. Treating OUD "takes a proper treatment team, and it takes a proper set of resources that can be used to provide the care for patients when they need it." Trial Tr. (7/1/19 p.m., Fong) at 35:5-11.

885. Defendants' expert, Dr. Fong, agreed that "if we have a lot of folks with opioid use disorder, we can control that if we have proper access to treatment, we use the right modalities of treatment, have the right people to provide it and have the right support systems in place." Trial Tr. (7/1/19 p.m., Fong) at 35:17-21.

886. Dr. Fong further agreed that:

- "[W]e need to increase access to treatment to deal with opioid use disorder" (Trial Tr. (7/1/19 p.m., Fong) at 135:14-20);
- "[W]e need to have access for [OUD] treatment for every living soul that needs it" (Trial Tr. (7/1/19 p.m., Fong) at 136:5-7); and
- "[W]e need to increase the knowledge available to people about how to get treatment and go to the right places." Trial Tr. (7/1/19 p.m., Fong) at 136:21-24.

Trial Tr. (7/1/19 p.m., Fong) at 135:14-20, 136:5-7, 136:21-24.

887. Senior members of ODMHSAS, who have significant experience in developing comprehensive plans based on evidence-based best practices to provide treatment and prevention services, developed the State's Abatement Plan. Trial Tr. (6/25/19 a.m., Commissioner White) at 94:22-96:12; Trial Tr. (6/20/19 p.m., Hawkins) at 106:3-9.

888. ODMHSAS is "the Single State Authority for mental health and substance abuse and gambling addiction," and is responsible for the treatment and prevention of

mental illness and addiction in the State of Oklahoma. Trial Tr. (6/25/19 a.m., Commissioner White) at 15:4-7.

889. Among other responsibilities, ODMHSAS operates seven (7) psychiatric hospitals, the only State-operated children's psychiatric hospital, three (3) crisis centers, oversees the State-wide network of criminal justice diversion services and numerous partnerships, including drug courts and mental health courts, is responsible for certified law enforcement training related to mental health and crisis intervention training, has over 1,200 contractors statewide and employs approximately 1,800 Oklahomans. Trial Tr. (6/25/19 a.m., Commissioner White) at 16:11-19:11, 22:17-25.

890. ODMHSAS oversees a budget of approximately just over $600 million annually. *Id.* at 23:4-15. Commissioner White is responsible for putting together and overseeing the OMDHSAS's annual budget. *Id.* at 23:16-24:3.

891. ODMHSAS also is "responsible for making sure that Oklahomans in need of treatment for mental illness and addiction, as well as prevention," are provided the services they need "throughout the State of Oklahoma." *Id.* at 15:15-18. For these Oklahomans, including indigent Oklahomans who lack the means to pay for these services and Medicaid-eligible individuals, ODMHSAS is "often the provider of last resort" that provides a "state-wide safety net" for the provision of mental health and substance abuse services. *Id.* at 15:4-16:15. However, ODMHSAS's "safety net in Oklahoma is stretched very thin and has gaps." *Id.* at 15:13-14.

892. The State's Abatement Plan includes "gold-standard, evidence-based prevention programs that have been proven through 20, 30, and sometimes 40 years of

research and gold-standard clinical trials to decrease substance use and specifically, in some these cases, opioid use, by numbers as high as 65 percent." Trial Tr. (6/25/19 a.m., Commissioner White) at 94:22-96:12; Trial Tr. (6/26/19 p.m., Commissioner White) at 129:21-130:1.

i. Addiction Treatment Services

893. Establishment of a comprehensive OUD treatment program serving all Oklahoma residents who need OUD treatment services is necessary to abate the nuisance. Trial Tr. (6/20/19 p.m., Hawkins) at 116:22-117:2 & 117:15-20; Trial Tr. (6/25/19 a.m., Commissioner White) at 91:17-19 & 110:21-112:7; Trial Tr. (6/17/19 p.m., Beaman) at 83:17-20; Trial Tr. (6/13/19 p.m., Kolodny) at 125:4-19; S-4734 at 19.

894. As part of the Addiction Treatment Services, all Oklahoma residents in need of treatment services will be eligible to receive a biopsychosocial assessment based on the American Society of Addiction Medicine ("ASAM") level of care placement criteria, and comprehensive treatment and recovery services based on the ASAM level of care needed, including early intervention, outpatient services, ambulatory detoxification, intensive outpatient, partial hospitalization, residential care, medically managed detoxification and medication. Trial Tr. (6/20/19 p.m., Hawkins) at 118:7-23; S-4734 at 19; S-3924. The ASAM placement criteria is a clinical protocol best practice that once a person is assessed for OUD, based on the severity of their symptoms and other factors, i.e., social conditions such as housing, they are placed into a certain level of care that is appropriate for the severity of their OUD. Trial Tr. (6/20/19 p.m., Hawkins) at 119:3-17. OUD is on a continuum of mild, moderate, and severe. Trial Tr. (6/20/19 p.m., Hawkins) at 119:15-17;

Trial Tr. (6/20/19 p.m. Croff)[72] at 119:11-17. Each of the ASAM levels of care are included in the treatment program. Trial Tr. (6/20/19 p.m., Hawkins) at 119:3-17; S-4734 at 19; S-3924.

895. The costs for each level of service in the treatment program (the ASAM levels of care and medication) are based on several factors: (1) the ASAM levels of care,

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[72] Dr. Croff is the Executive Director of the Center for Wellness and Recovery ("the Center") at Oklahoma State University ("OSU") and a tenured Associate Professor in the Department of Rural Health. Trial Tr. (6/20/19 a.m., Croff) at 6:2-6. The Center was created to address the nuisance in Oklahoma. *Id.* at 6:10-12. The Center's mission is to improve the lives of Oklahomans affected by pain and substance use disorder, specifically across four pillars: clinical services, training and education, research and advocacy. *Id.* at 6:13-18. As Executive Director of the Center, Dr. Croff interacts daily with the clinicians at the Center's addiction medicine clinic to ensure the Center is utilizing best practices and engaging in research such as nonpharmacological alternatives to opioid therapy for the treatment of pain, recovery for individuals with OUD, and effects and outcomes on children exposed to opiates in utero. *Id.* at 7:20-8:9; 11:2-14:17; Trial Tr. (6/20/19 p.m., Croff) at 58:14-17. Dr. Croff provides continuing medical education to clinicians regarding the Oklahoma opioid crisis. Trial Tr. (6/20/19 a.m., Croff) at 10:21-11:1; 16:9-11; Trial Tr. (6/20/19 p.m., Croff) at 58:11-13. Dr. Croff was also a tenured assistant professor of health education and promotion at OSU in Stillwater. Trial Tr. (6/20/19 a.m., Croff) at 22:1-6. Dr. Croff founded the Masters of Public Health Program at OSU in 2014. *Id.* at 22:7-14; 22:20-23:11. Dr. Croff has taught courses in the Masters of Public Health program, epidemiology, health behavioral theory and principles of health education and promotion. *Id.* at 19:24-20:20:9. Dr. Croff also was Associate Director for Research for the Center for Family Resilience at OSU in Tulsa. Dr. Croff received a bachelors degree in biology, a masters degree in public health from Boston University and a PhD in public health from the joint-doctoral program at University of California San Diego and San Diego State university. *Id.* at 21:7-21. Dr. Croff has several active grants related to OUD specifically and substance use disorder. *Id.* 23:17-31:10. The grants related to opioids specifically include, grants from (1) the Health Resources and Services Administration to plan for opioid response in rural communities, (2) CDC through the Oklahoma State Department of Health to provide education to four rural communities to the general population, providers, law enforcement and anyone touched by the opioid epidemic, and (3) SAMHSA, for waiver training for providers to provide medication assisted treatment to individuals with OUD. *Id.* at 24:15-25:7; 10:2-15. Dr. Croff has other NIH-funded grants related to substance use. *See e.g., id.* at 25:8-8-23; 31:18-32:9. Dr. Croff is widely published and frequently gives presentations and talks to clinicians, public health practitioners and academic researchers on substance use, including opioids and alcohol, and periconceptual health and maternal health. *Id.* at 31:18-21; 32:10-33:1. Dr. Croff also has experience in collegiate health promotion as a peer health educator. *Id.* at 33:24-34:6. Dr. Croff has 20 years of experience working on substance use, including drugs and alcohol as experienced and used by college students. Trial Tr. (6/20/19 a.m., Croff) at 100:12-22.

(2) the established rates ODMHSAS pays for each of these services; and (3) a conservative number of Oklahomans in need of OUD treatment services.

896. ODMHSAS conservatively estimated 35,000 Oklahomans would benefit from and require these OUD treatment services. Trial Tr. (6/20/19 p.m., Hawkins) at 119:11-121:9; S-3924; S-4734 at 19. The 35,000-estimate was developed using the National Survey on Drug Use and Health ("NSDUH") prevalence rates for opioid use and dependence for the State of Oklahoma for the nine-year period, 2003 to 2011. Trial Tr. (6/21/19 p.m., Hawkins) at 74:10-12; Trial Tr. (6/24/19 p.m., Hawkins) at 96:3-12. An average of those nine years of NSDUH data equates to 33,400 Oklahomans in need of treatment services because of their opioid abuse and dependence. Trial Tr. (6/21/19 p.m., Hawkins) at 74:12-14. This excludes heroin and is specific to prescription opioids. Trial Tr. (6/21/19 p.m., Hawkins) at 74:10-15. ODMHSAS then added 5% for support services to families to arrive at a conservative estimate of 35,000 Oklahomans in need of treatment services annually. Trial Tr. (6/24/19 p.m., Hawkins) at 96:7-12.

897. The State then cross-referenced the estimated 35,000 Oklahomans in need of treatment services based on NSDUH data with 2017 claims data showing the number of Oklahomans diagnosed with OUD from (1) SoonerCare, (2) ODMHSAS, and (3) Blue Cross Blue Shield[73] and arrived at approximately 36,000 Oklahomans with an OUD diagnosis in 2017 *alone*. Trial Tr. (6/20/19 p.m., Hawkins) at 121:15-122:4; Trial Tr.

[73] The Blue Cross/Blue Shield rate was applied to all Oklahomans who have private insurance to estimate the rate of OUD in the private insurance pool. Trial Tr. (6/24/19 p.m., Hawkins) at 75:21-76:7.

(6/21/19 p.m., Hawkins) at 74:16-23 & 75:7-10; Trial Tr. (6/24/19 p.m., Hawkins) at 75:6-18 & 96:14-24. This number does not include all of the uninsured Oklahomans in the State who need treatment but are not receiving it. Trial Tr. (6/24/19 p.m., Hawkins) at 87:14-18. It also does not include Oklahomans who pay for treatment services with cash. Trial Tr. (6/24/19 p.m., Hawkins) at 97:10-12.

898. Thirty-Five Thousand (35,000) is a conservative estimate of the number of Oklahomans with mild, moderate or severe OUD. Trial Tr. (6/20/19 p.m., Hawkins) at 121:15-122:4; Trial Tr. (6/21/19 p.m., Hawkins) at 74:24-25; Trial Tr. (6/24/19 p.m., Hawkins) at 79:24-25, 97:4-9. Moreover, most people with OUD in Oklahoma are not receiving treatment. Trial Tr. (6/24/19 p.m., Hawkins) at 97:13-16. Defendants' expert, Dr. Timothy Fong, opined that one percent of the U.S. population suffers from OUD. Trial Tr. (6/24/19 p.m., Hawkins) at 81:6-16, 96:18-20. Thirty-Five Thousand (35,000) Oklahomans is less than one percent of Oklahoma's population. *Id.* The State also is aware of growing needs around OUD in certain communities and potential growth in the number of Oklahomans using heroin as a result of the nuisance. Trial Tr. (6/20/19 p.m., Hawkins) at 121:15-122:4.

899. The ASAM levels of care increase in intensity from early intervention to medically-managed detoxification. Trial Tr. (6/20/19 p.m., Hawkins) at 119:24-120:9; S-3924; S-4734 at 19. For example, early intervention is an education or group-setting service. Trial Tr. (6/20/19 p.m., Hawkins) at 120:1-3. Outpatient services are counseling-type services. Trial Tr. (6/20/19 p.m., Hawkins) at 120:3-4. Ambulatory detoxification is outpatient, opioid withdrawal management programs. Trial Tr. (6/20/19 p.m., Hawkins) at

120:5-6. And, intensive outpatient, partial hospitalization, residential care and medically-managed detoxification require different levels of supervision by medical providers. Trial Tr. (6/20/19 p.m., Hawkins) at 120:6-9. The medication service covers medications, such as buprenorphine used in medication assisted treatment for OUD. Trial Tr. (6/20/19 p.m., Hawkins) at 121:10-14.

900. Based on 35,000 Oklahomans requiring Addiction Treatment Services annually and applying ASAM criteria, on any given day in Oklahoma, the State requires 5,000 early intervention service spots; 15,000 outpatient service spots, 5,000 ambulatory detoxification service spots; 5,000 intensive outpatient services spots; 5,000 partial hospitalization service slots; and 250 additional medically-managed detoxification (residential) service slots. Trial Tr. (6/20/19 p.m., Hawkins) at 120:18-25; S-3924. In addition, 7,500 Oklahomans with OUD require medication. Trial Tr. (6/20/19 p.m., Hawkins) at 120:18-25; S-3924. For residential treatment service slots, there are 250 additional beds required for moderate intensity residential treatment, 100 additional beds required for high intensity residential treatment, and 250 additional beds required for residential treatment for women with children. Trial Tr. (6/20/19 p.m., Hawkins) at 120:18-25; S-3924.

901. For each of these treatment services, the number of slots needed were multiplied by the established rates ODMHSAS pays for each of these services. Trial Tr. (6/20/19 p.m., Hawkins) at 119:11-23; 121:1-9; S-3924. For early intervention, the total annual cost is $5.0000 million; for outpatient services, the total annual cost is $37.5000 million; for ambulatory detoxification, the total annual cost is $24.0000 million; for

intensive outpatient services, the total annual cost is $40.5000 million; for partial hospitalization services, the total annual cost is $51.0000 million; for residential care services, the total annual cost is $41.0625 million; for medically-managed detoxification, the total annual cost is $13.6875 million; and for medication, the total annual cost is $9.0000 million. Trial Tr. (6/20/19 p.m., Hawkins) at 121:1-9; S-3924; S-4734 at 19; S-3924.

902. The total yearly cost for these services in 2019 dollars is $232,947,710. The net present value of these costs over a 20-year, 25-year and 30-year period is $4,128,961,169, $5,003,978,362 and $5,823,895,409, respectively. *See* S-4734 at 19.[74]

903. The costs for Addiction Treatment Services are reasonable and necessary costs to implement the Addiction Treatment Services. Trial Tr. (6/20/19 p.m., Hawkins) at 122:8-15; Trial Tr. (6/17/19 p.m., Beaman) at 83:17-20; Trial Tr. (6/25/19 a.m., Commissioner White) at 100:3-7; Trial Tr. (6/26/19 p.m., Commissioner White) at 129:21-130:1. The costs are constant during the Abatement period because OUD is a chronic and often relapsing disease. Trial Tr. (6/24/19 p.m., Hawkins) at 93:8-18; *see also* Sections I and I.1.a., *supra*. People move between different levels of care based on the severity of their symptoms at any given time during their life. *Id.* And, people with OUD often require treatment for the duration of their lives. *Id.*; Trial Tr. (6/17/19 p.m., Beaman) at 58:1-59:10 & 56:21-57:10; Trial Tr. (6/25/19 a.m., Commissioner White) at 69:1-4, 91:20-25; Trial Tr. (6/11/19 a.m., Kolodny) at 20:18-21:04; *see also, e.g.*, Trial Tr. (6/14/19 p.m., Hoos)

[74] The costs include 3% administrative costs. S-4734, at 19; Trial Tr. (6/24/19 p.m., Hawkins) at 18:-22.

at 81:14-25, 84:3-12. The costs for Addiction Treatment Services also account for new cases of OUD. *Id.* The Addiction Treatment Services must continue throughout the Abatement period in order to abate the nuisance. Trial Tr. (6/24/19 p.m., Hawkins) at 94:4-6; *see also*, Section I.

ii. Addiction Treatment - Supplementary Services

904. Addiction Treatment - Supplementary Services are necessary to abate the nuisance. Trial Tr. (6/21/19 a.m., Hawkins) at 9:8-12; S-4734 at 20; Trial Tr. (6/25/19 a.m., Commissioner White) at 100:3-7; Trial Tr. (6/26/19 p.m., Commissioner White) at 129:21-130:1.

905. Addiction treatment supplementary services are additional recovery services and supportive services that research indicates will improve recovery outcomes for individuals with OUD. Trial Tr. (6/21/19 a.m., Hawkins) at 6:4-7:7. These services include housing services such as halfway housing, recovery housing, and Housing First. *Id.*; S-4734 at 20. They also include supportive employment services such as Individualized Placement and Support (IPS), an evidence-based approach to helping people with substance use disorder find gainful employment in the community. Trial Tr. (6/21/19 a.m., Hawkins) at 6:4-7:7; S-4734 at 20. These supplementary services also include a one-time cost for building residential substance use disorder treatment beds. *Id.*

906. The U.S. Commission recommends similar services as necessary actions to abate the nuisance:

> Recovery residences can play a critical role for individuals in outpatient treatments, those exiting residential treatment, homeless individuals in early recovery, those involved in drug courts, those returning to the community

> from incarceration, and those who may not require residential treatment if they have a living environment that is supportive of recovery, outpatient treatment and/or mutual aid groups.

S-1574 at 84.

907. ODMHSAS calculated the costs for Addiction Treatment - Supplementary Services using its estimate of 35,000 Oklahomans in need of Addiction Treatment Services. Trial Tr. (6/21/19 a.m., Hawkins) at 7:8-8:3; S-3924. ODMHSAS then estimated the slots needed for each of the supplementary services based on the services ODMHSAS currently provides and using the ASAM criteria for placement. *Id.* For halfway house services, the State estimated a need of 500 slots. *Id.* For recovery housing, 1,000 slots. *Id.* For Housing First, 1,500 slots. And, for IPS employment services, 1,500 slots. *Id.*

908. ODMHSAS then multiplied the number of Oklahomans in each service slot by the rates ODMHSAS currently pays for these services. Trial Tr. (6/21/19 a.m., Hawkins) at 7:8-8:3; S-3924. For halfway house services, the cost is $18,250,000 annually. Trial Tr. (6/21/19 a.m., Hawkins) at 8:4-14; S-3924; S-4734 at 20. For recovery housing, the cost is $8,400,000 annually. *Id.* For Housing First, the cost is $1,500,000 million annually. *Id.* For IPS (Employment Services) the cost is $1,500,000 annually. *Id.*

909. The one-time cost to build halfway house/residential facilities is $54,166,666. *Id.* This one-time cost is based on an estimated cost of $155 per square foot to build the halfway house/residential facilities. *Id.* This one-time cost will yield approximately 1,100 residential beds. *Id.*

910. The Addiction Treatment - Supplementary Services also include personnel in the form of two full-time staff members for the juvenile justice system: (1) a mental

health consultant—a full-time employee who will serve in the Office of Juvenile Affairs ("OJA") to support with assessing and guiding youthful offenders and their family members in receiving mental health and addiction services; and (2) a full-time care navigator to coordinate with opioid affected youth in the juvenile justice and other State systems (such as mental health and substance abuse and child welfare) and their family to improve recovery outcomes. Trial Tr. (6/21/19 a.m., Hawkins) at 6:21-7:7; S-4734 at 20.

911. The costs for these two full-time staff members for the juvenile justice system are based on comparable salaries for these positions in the State of Oklahoma. Trial Tr. (6/21/19 a.m., Hawkins) at 8:15-18. The annual salary and benefits package for a mental health consultant and care navigator is $82,033 each. *Id.* The personnel benefits were calculated at 1.4915 x salary. *Id*; S-4734 at 20, n.21.

912. The total yearly cost for these services in 2019 dollars is $85,962,677 for the first year and $30,157,678 for each subsequent year. The net present value of these costs over a 20-year, 25-year and 30-year period is $569,874,489, $672,851,768 and $767,272,927, respectively. *See* S-4734 at 20.

913. The costs for Addiction Treatment Supplementary - Services are reasonable and necessary costs to implement Addiction Treatment Supplementary Services. Trial Tr. (6/21/19 a.m., Hawkins) at 9:13-19; Trial Tr. (6/25/19 a.m., Commissioner White) at 100:3-7; Trial Tr. (6/26/19 p.m., Commissioner White) at 129:21-130:1.

iii. Addiction & Mental Health Helpline

914. A statewide, 24/7 live counseling and referral helpline (telephonic and text services) for Oklahomans—which will assist persons with OUD and persons who are at

risk for OUD and have comorbid conditions, and their family members and the general community—is necessary to abate the nuisance. Trial Tr. (6/21/19 a.m., Hawkins) at 11:2-8; S-4734 at 21; Trial Tr. (6/25/19 a.m., Commissioner White) at 100:3-7; Trial Tr. (6/26/19 p.m., Commissioner White) at 129:21-130:1.

915. The particular services the helpline will provide include: crisis and de-escalation support; brief education on behavioral health topics; service referral; service navigation support to help navigate the social, financial or substance use disorder treatment services that may be necessary; follow-up services; proactive counseling support and assistance with medication; and answering questions regarding treatment care. Trial Tr. (6/21/19 a.m., Hawkins) at 10:3-10; S-4734 at 21.

916. ODMHSAS based the cost for this statewide helpline on an average of the last two years of the budget for the comprehensive Oklahoma tobacco cessation support helpline currently in operation in Oklahoma. Trial Tr. (6/21/19 a.m., Hawkins) at 10:11-23; Trial Tr. (6/24/19 p.m., Hawkins) at 51:8-10; S-4734 at 21, n.24. The tobacco cessation helpline is built on evidence-based research about tobacco control, cessation support, proactive counseling, and providing a variety of different support and educational services to the community. *Id.* The cost for the opioid statewide helpline is $4.0 million per year. *Id.*

917. The purpose of this helpline is to abate the nuisance. Trial Tr. (6/24/19 p.m., Hawkins) at 52:4-9. The tobacco helpline receives approximately 30,000 calls per year. Trial Tr. (6/24/19 p.m., Hawkins) at 52:12-16. The State compared this call volume to the prevalence of OUD in Oklahoma and made a reasonable estimate about what the service

would entail as an opioid service. *Id.* The cost also factors in the number of people that may call in for support for a family member. For example, for every person at risk or who has mild, moderate, or severe opioid use disorder, there may be several family members who call for support. Trial Tr. (6/24/19 p.m., Hawkins) at 53:6-14. It also anticipates a variety of callers from the community who are not directly connected to a person with OUD. *Id.* For example, school teachers may call the helpline to request information regarding referrals to counselors. *Id.*

918. The total yearly cost for these services in 2019 dollars is $4,094,400. The net present value of these costs over a 20-year, 25-year and 30-year period is $69,793,375, $83,774,231 and $96,593,454, respectively. *See* S-4734 at 21

919. The costs for the statewide helpline are reasonable and necessary expenses to implement the helpline. Trial Tr. (6/21/19 a.m., Hawkins) at 11:9-13; Trial Tr. (6/24/19 p.m., Hawkins) at 54:7-11; Trial Tr. (6/25/19 a.m., Commissioner White) at 100:3-7; Trial Tr. (6/26/19 p.m., Commissioner White) at 129:21-130:1.

iv. Public Medication Disposal

920. Expanding and maintaining the Safe Trips for Scripts medication-disposal program is necessary to abate the nuisance. Trial Tr. (6/21/19 a.m., Hawkins) at 16:13-18; Trial Tr. (6/25/19 a.m., Commissioner White) at 100:3-7; Trial Tr. (6/26/19 p.m., Commissioner White) at 129:21-130:1; S-4734 at 22.

921. The federal plans and other recommendations addressing the nuisance recommend that residents have an accessible, easy way to remove prescription opioid medications from their home in order to avoid any adverse harm or child exposure or other

unnecessary exposure to prescription opioids. Trial Tr. (6/21/19 a.m., Hawkins) at 11:17-12:3.

922. Defendants' own expert, Dr. Timothy Fong, agrees that "one of the most important things we can do in the prevention side is to make sure that we have take back boxes or appropriate facilities around so that we can get rid of extra, unused or unwanted drugs." Trial Tr. (7/1/19 p.m., Fong) at 127:22-128:2 & 129:15-18.

923. The OBN established Safe Trips for Scripts—a program involving 177 boxes throughout the State of Oklahoma that are located within law enforcement agencies. Trial Tr. (6/21/19 a.m., Hawkins) at 11:19-12:14. There is at least one box in every county. *Id.* This component of the Abatement Plan involves maintaining and sustaining this program and the 177 disposal boxes for prescription opioids. *Id.* It also involves purchasing consumable products such as the liners that go into these boxes. *Id.* It also involves purchasing two compactors in order to dispose and compact the prescription opioid medications. *Id.* And, it requires staff to oversee and administer the program. *Id.*

924. There is a cost of $500 for each of the 177 disposal boxes, and each box has a six-year life span before it needs to be replaced. Trial Tr. (6/21/19 a.m., Hawkins) 12:15-24; S-4734 at 22, n.26. As such, the 177 disposal boxes cost $14,750 per year. ((177 x $500)/6). *Id.*

925. The consumable liners required for the disposal boxes cost approximately $10 per box. As such, the cost of consumables is $1,770 per year (177 x $10). Trial Tr. (6/21/19 a.m., Hawkins) at 12:15-13:2; S-4734 at 22, n.27.

926. The compactors cost $30,000 each and have a life of approximately 10 years before they need to be replaced. Trial Tr. (6/21/19 a.m., Hawkins) at 12:15-13:6; S-4734 at 22, n.28. As such, the cost of two compactors is $6,000 per year ($60,000/10 years). *Id.*

927. OBN's experience running this program indicates the program requires 12 hours of staff time per box at an agent III salary to move throughout the State and oversee the boxes and ensure they are properly regulated. Trial Tr. (6/21/19 a.m., Hawkins) at 12:9-14;13:7-10. As such, the personnel required to administer and maintain the 177 disposal boxes cost $114,138 per year (12 hours per box=2,124 hours. Agent III salary = 107,475, assume 2,000 hours/year of work ($107,475 x 2,124/2,000 = 114,138). Trial Tr. (6/21/19 a.m., Hawkins) at 12:9-14; 13:7-10; S-4734 at 22, n.29.

928. The total yearly cost for these services in 2019 dollars is $139,883. The net present value of these costs over a 20-year, 25-year and 30-year period is $2,384,454, $2,862,102 and $3,300,064, respectively. *See* S-4734 at 22

929. The services and personnel costs for public medication disposal are reasonable and necessary expenses to implement the public medication disposal program. Trial Tr. (6/21/19 a.m., Hawkins) at 16:19-23; Trial Tr. (6/25/19 a.m., Commissioner White) at 100:3-7; Trial Tr. (6/26/19 p.m., Commissioner White) at 129:21-130:1.

v. Technical Assistance

930. Technical Assistance and training in evidence-based practices for opioid assessment and treatment, including medication assisted treatment/therapy, is necessary to abate the nuisance. Trial Tr. (6/21/19 a.m., Hawkins) at 16:2-12; Trial Tr. (6/21/19 p.m.,

Hawkins) at 51:8-15; S-4734 at 23; Trial Tr. (6/25/19 a.m., Commissioner White) at 100:3-7; Trial Tr. (6/26/19 p.m., Commissioner White) at 129:21-130:1.

931. ODMHSAS is the primary provider of training in the State of Oklahoma for the behavioral health workforce. Trial Tr. (6/21/19 a.m., Hawkins) at 13:17-14:10. To abate the nuisance, it is urgent and necessary that ODMHSAS is able to provide training to the State's behavioral health workforce and facilities each year on evidence-based approaches, including medication assisted treatment, for high-quality service delivery of opioid use disorder treatment and other supportive services. *Id.*

932. The purpose of this component of the plan is to teach behavioral health providers, clinicians, support staff and others about new research around how best to treat OUD, including, but not limited to, teaching behavioral health professionals OUD clinical protocols with pregnant women and young populations, and utilizing housing and employment services as a recovery support for people with OUD. Trial Tr. (6/21/19 a.m., Hawkins) at 14:17-21 & 14:13-15:5; Trial Tr. (6/24/19 p.m., Hawkins) at 58:11-24. This technical assistance will expand these professionals' ability to implement evidence-based practices in the treatment and prevention of OUD. Trial Tr. (6/24/19 p.m., Hawkins) at 58:11-24.

933. Specifically, Technical Assistance involves 12 evidence-based practice disseminations per year and an annual conference where, research, best practices and other types of practice-to-research issues will be discussed among the Oklahoma behavioral workforce. Trial Tr. (6/21/19 a.m., Hawkins) at 14:5-10.

934. These disseminations include formal structured face-to-face training where classroom curriculum is delivered to clinicians and to other support staff. Trial Tr. (6/21/19 a.m., Hawkins) at 14:24-15:5. It also includes materials for training. Trial Tr. (6/21/19 a.m., Hawkins) at 14:24-15:3. And, it includes expert consultation and technical assistance that occurs typically from these trainers after the curriculum instruction is over. Trial Tr. (6/21/19 a.m., Hawkins) at 15:3-5. For example, throughout the year, there may be learning communities that are developed where people who participate in these trainings continue to meet and receive consultation from experts. Trial Tr. (6/21/19 a.m., Hawkins) at 15:6-9.

935. Based on each of these considerations, ODMHSAS calculated a cost of $50,000 per evidence-based practice dissemination. Trial Tr. (6/21/19 a.m., Hawkins) at 14:11-15:13. In addition, because training space is required, there is an additional cost of $1,000 per event for venue fees. Trial Tr. (6/21/19 a.m., Hawkins) at 15:9-13; S-4734 at 23, n.31. Administrative oversight and planning of the dissemination programs also is required at a cost of $1,000 per event. *Id.* In total, 12 evidence-based practice disseminations cost $624,000 per year. Trial Tr. (6/21/19 a.m., Hawkins) at 15:22-24; S-4734 at 23.

936. The annual conference is a way to bring together the entire behavioral health workforce, national experts, local experts and others to review research findings, disseminate best practice training, and discuss emerging and innovative approaches to treat and prevent OUD. Trial Tr. (6/21/19 a.m., Hawkins) at 15:14-21; S-4734 at 23, n.32. These conferences cost $300,000 per year, which is a typical cost for putting together an event of this scale. *Id.*

937. The total yearly cost for these services in 2019 dollars is $945,806. The net present value of these costs over a 20-year, 25-year and 30-year period is $16,122,263, $19,351,839 and $22,313,078, respectively. *See* S-4734 at 23.

938. The costs for technical assistance are reasonable and necessary to implement 12-evidence-based practice disseminations per year and an annual conference. Trial Tr. (6/21/19 a.m., Hawkins) at 16:2-12; Trial Tr. (6/25/19 a.m., Commissioner White) at 100:3-7; Trial Tr. (6/26/19 p.m., Commissioner White) at 129:21-130:1.

vi. Specialty Courts

939. Developing and maintaining 60 family drug courts in Oklahoma to divert non-violent, eligible offenders from prison to structured, court-supervised treatment services are necessary to abate the nuisance. Trial Tr. (6/21/19 a.m., Hawkins) at 18:5-11; Trial Tr. (6/25/19 a.m., Commissioner White) at 100:3-7; Trial Tr. (6/26/19 p.m., Commissioner White) at 129:21-130:1; S-4734 at 24. This component of the Plan is designed to abate the nuisance and to serve people with OUD. Trial Tr. (6/24/19 p.m., Hawkins) at 60:24-25, 61:7-8, 61:24-25, 62:17-20.

940. Oklahoma is a national leader in diversionary courts and specialty courts, otherwise known as drug courts and mental health courts. Trial Tr. (6/25/19 a.m., Commissioner White) at 19:12-24. The State, through ODMHSAS, the Oklahoma judiciary, district attorneys and partnerships with ODMHSAS's treatment providers, funds and operates felony-level drug courts in 73 counties, misdemeanor drug courts through a pilot program in six (6) counties, and mental health courts in (or soon to be in) 23 counties in Oklahoma. Trial Tr. (6/25/19 a.m., Commissioner White) at 19:22-20:16. These courts

operate as diversionary programs for individuals whose primary reason for coming into contact with the criminal justice system is untreated mental illness and addiction. Trial Tr. (6/25/19 a.m., Commissioner White) at 20:4-8. State and national studies, as well as metrics and outcome benchmarks measured by ODMHSAS, demonstrate that Oklahoma has the highest performing mental health courts, drug courts and veterans courts in the country. Trial Tr. (6/25/19 a.m., Commissioner White) at 20:17-25.

941. Oklahoma's current drug courts, including felony-level diversion programs and misdemeanor diversion courts, have been "very successful." Trial Tr. (6/25/19 a.m., Commissioner White) at 92:16-23.

942. These courts cost money to fund and operate. Trial Tr. (6/25/19 a.m., Commissioner White) at 21:1-3. However, they "are much less expensive than incarceration." Trial Tr. (6/25/19 a.m., Commissioner White) at 21:1-3.

943. In Oklahoma, incarceration costs the Department of Corrections ("DOC"), on average, approximately $19,000 per incarcerated individual annually. Trial Tr. (6/25/19 a.m., Commissioner White) at 21:4-5. On the other hand, (i) general drug courts cost approximately $5,000 per individual annually, (ii) mental health courts cost approximately $5,400 per individual annually, and (iii) family drug courts cost approximately $7,000 per individual annually. Trial Tr. (6/25/19 a.m., Commissioner White) at 21:1-8.

944. In other words, these specialty courts save money. Trial Tr. (6/25/19 a.m., Commissioner White) at 21:10-12. Moreover, outcome measurements indicate that these courts "actually put people back to work in legal jobs, where they're earning legal wages and able to support their famil[ies]." Trial Tr. (6/25/19 a.m., Commissioner White) at

21:12-17. For example, a study that analyzed approximately 4,076 individuals who graduated from Oklahoma drug courts between 2010 and 2012 earned over $200 million in legal wages over the next five (5) years following their treatment in and graduation from these programs. Trial Tr. (6/25/19 a.m., Commissioner White) at 21:18-22:9. As a result, these individuals paid over $6 million into Oklahoma's General Revenue Tax Fund over these years. Trial Tr. (6/25/19 a.m., Commissioner White) at 22:1-2. Conversely, had these individuals been incarcerated during that time for an average sentence of approximately three (3) years, the Oklahoma taxpayers would have paid "over $196 million to incarcerate them." Trial Tr. (6/25/19 a.m., Commissioner White) at 22:3-9.

945. John McGregor is one of many examples "of the success of drug courts and mental health courts across the State of Oklahoma." Trial Tr. (6/25/19 a.m., Commissioner White) at 22:10-16.

946. When asked about what direction his life was headed if he had not gone to drug court and met Judge Tupper, Mr. McGregor replied: "Honestly, I would have been dead." Trial Tr. (6/7/19 a.m., McGregor) at 26:22-24.

947. Mr. McGregor testified that drug court "played a huge role in [his] recovery," and he was ultimately able to get his wife and kids back and "get back in the home [he] built for [his] family" that he had once lost due to his addiction. Trial Tr. (6/7/19 a.m., McGregor) at 27:12-16.

948. Mr. McGregor thanked Judge Tupper and testified that "[Judge Tupper] sat on the bench and told [him]: 'John, this is all you. This is your time. You can either go to prison or make a life-changing choice.'" And, Mr. McGregor testified that when he saw

Judge Tupper in the hallway before court, he told him: "Thank you for being a part of my life. Thank you for giving a chance in a program to succeed, excel." Trial Tr. (6/7/19 a.m., McGregor) at 30:21-31:7.

949. The State currently only operates "a handful" of family drug courts. Trial Tr. (6/25/19 a.m., Commissioner White) at 92:24. "A family drug court is for a family whose child is at risk of going into DHS custody or has entered DHS custody due to an untreated addiction of the parent." Trial Tr. (6/25/19 a.m., Commissioner White) at 92:25-93:2. Family drug courts "keep families together" by providing "a judicial[ly] supervised and accountable delivery of substance abuse treatment, along with parenting and education skills" to these families affected by untreated addiction. Trial Tr. (6/25/19 a.m., Commissioner White) at 93:2-6.

950. The family drug court system is necessary in Oklahoma due to the impact of the opioid crisis on child welfare. Trial Tr. (6/21/19 a.m., Hawkins) at 17:3-21. The family drug courts are designed for parents whose opioid use disorder has resulted in their child being either removed from the home or referred for abuse, neglect, or some other referral related to child welfare. *Id.* These courts are very effective. *Id.* They are held as a best practice in the country for not only addressing substance use disorder, but also assisting with reunification of children and their parents. *Id.* They have shown to also be effective in engaging parents in substance use disorder treatment. *Id.* When people go through family drug court, they're not only more likely to have fewer days separated from their family and children and to successfully reunify, but they also are more likely to engage and participate in their substance use disorder treatment program. *Id.*

951. "Family drug courts will decrease trauma to [Oklahoma] children" affected by parental addiction to opioids "and decrease the likelihood that these children will be the next children to struggle with addiction." Trial Tr. (6/25/19 a.m., Commissioner White) at 93:12-14.

952. The costs of family drug courts are based on serving approximately 2,190 families at a cost of $7,000 per family, totaling $15.5 million per year, including treatment services and administrative costs. Trial Tr. (6/21/19 a.m., Hawkins) at 17:22-18:4; S-4734 at 24, n.34.

953. The total yearly cost for these services in 2019 dollars is $15,865,800. The net present value of these costs over a 20-year, 25-year and 30-year period is $270,449,327, $324,625,146 and $374,299,634, respectively. *See* S-4734 at 24.

954. These costs are necessary and reasonable expenses to implement 60 family drug courts in Oklahoma. Trial Tr. (6/21/19 a.m., Hawkins) at 18:5-16; Trial Tr. (6/25/19 a.m., Commissioner White) at 100:3-7; Trial Tr. (6/26/19 p.m., Commissioner White) at 129:21-130:1.

vii. Transportation Services

955. Developing a transportation program that provides treatment and recovery transportation services for consumers is necessary to abate the nuisance. Trial Tr. (6/21/19 a.m., Hawkins) at 20:9-13; Trial Tr. (6/25/19 a.m., Commissioner White) at 100:3-7; Trial Tr. (6/26/19 p.m., Commissioner White) at 129:21-130:1; S-4734 at 25.

956. A barrier to successful engagement in OUD treatment is Oklahomans' ability to get to their appointments, whether outpatient counseling, pharmacology visits,

medication management visits, or other treatment appointments. Trial Tr. (6/21/19 a.m., Hawkins) at 19:6-21. Transportation Services are essential to ensure that Oklahomans who need OUD treatment, and are not receiving it due to transportation barriers, are able to receive treatment. *Id.* A recent study about transportation services concluded that when transportation is offered to persons with substance use disorder, their engagement in their treatment program increased over 100 percent. *Id.*

957. The costs for transportation services are based on an existing program within Oklahoma, SoonerRide, which is offered by the OHCA. Trial Tr. (6/21/19 a.m., Hawkins) at 19:22-20:8. The SoonerRide program is based on a per person, per month cost of $14.26. Trial Tr. (6/21/19 a.m., Hawkins) at 19:22-20:8; S-4734 at 25, n.36. Using the 35,000-estimate of prevalence of OUD in Oklahoma, there are a total of 420,000 covered life months. *Id.*; S-4734 at 25. Thus, it costs $5.9892 million per year to provide Transportation Services to all Oklahomans needing treatment services for OUD. *Id.*; S-4734 at 25.

958. The total yearly cost for these services in 2019 dollars is $6,130,545. The net present value of these costs over a 20-year, 25-year and 30-year period is $104,501,618, $125,435,154 and $144,629,376, respectively. *See* S-4734 at 25.

959. The costs for transportation services are reasonable and necessary expenses to implement transportation services to Oklahomans in need of treatment services for OUD. Trial Tr. (6/21/19 a.m., Hawkins) at 20:14-17; Trial Tr. (6/25/19 a.m., Commissioner White) at 100:3-7; Trial Tr. (6/26/19 p.m., Commissioner White) at 129:21-130:1.

viii. Universal Screening

960. Enabling all primary care practices and emergency departments to enroll in the Screening, Brief Intervention and Referral to Treatment ("SBIRT") practice dissemination program for academic detailing, continuing education, electronic medical record integration consultation and embedded practice facilitation services, and implementing universal substance use patient screening and intervention for SoonerCare patients is necessary to abate the nuisance. Trial Tr. (6/21/19 a.m., Hawkins) at 25:11-20; Trial Tr. (6/25/19 a.m., Commissioner White) at 100:3-7; Trial Tr. (6/26/19 p.m., Commissioner White) at 129:21-130:1; S-4734 at 26-27. It is critical for Universal Screening to be in place for 30 years. Trial Tr. (6/21/19 p.m., Hawkins) at 81:15-21; Trial Tr. (6/24/19 a.m., Hawkins) at 8:8-10. This is a public health approach to abating the nuisance. Trial Tr. (6/21/19 p.m., Hawkins) at 81:15-21. "You can't take your foot off the gas." *Id.* It is essential to continue to identify new cases of OUD. *Id.*

961. SBIRT is an evidence-based approach that has been shown in many randomized controlled trials to identify substance use risk and substance use disorder and actively engage patients in treatment for those issues. Trial Tr. (6/21/19 a.m., Hawkins) at 20:21-22:9; Trial Tr. (6/21/19 p.m., Hawkins) at 82:25. It is an evidence-based practice for every patient, every visit, to be screened for substance use in order to prevent new cases of addiction involving opioids and to identify and treat cases of OUD. Trial Tr. (6/21/19 p.m., Hawkins) at 84:5-7.

962. According to the U.S. Commission:

> SBIRT is an evidenced-based systematic method to screen for problematic use of all substances and, depending on a cumulative score, follow up with a brief intervention or referral to specialty treatment. The service was catapulted more widely into healthcare systems following a report from the Federal Government demonstrating its effectiveness in reducing substance use…

S-1574 at 43.

The U.S. Commission emphasized "[]here is a great need to ensure that health care providers are screening for SUDs and know how to appropriately counsel, or refer, a patient that presents with an SUD." S-1574 at 67.

963. SBIRT is a practice that follows a public health model. Trial Tr. (6/21/19 a.m., Hawkins) at 21:5-20. The purpose of SBIRT is to embed screening and referral into all healthcare settings so that it becomes a part of routine care. *Id.* This public health intervention asks patients about their alcohol and other drug use and the healthcare providers in those practices, emergency departments, or wherever they are trained, are ready to intervene, to raise the subject with the patient, to talk with them about their reported substance use, to motivate them, to engage in some sort of intervention or treatment, whether that be brief treatment or long-term treatment depending on the severity of their substance use disorder. *Id.*

964. SBIRT is not only about identifying OUD and referring people to care, but it is also critical that doctors and healthcare providers are asking patients about their alcohol use, particularly when making a decision about prescribing opioids. Trial Tr. (6/21/19 p.m., Hawkins) at 82:12-18. Opioids and alcohol are not indicated together, and their simultaneous use increases the risk of overdose death. *Id.* SBIRT is proven to work. Trial

Tr. (6/21/19 a.m., Hawkins) at 20:21-22:9. There are many trials that have shown alcohol and substance use go down after these brief interventions and referrals occur within a healthcare setting. *Id.* Specific to opioids, there are randomized controlled trials that have looked at screening, intervention, referral and medication assisted treatment in, for example, emergency departments and outpatient settings, and concluded they improve patients' opioid use. *Id.*

965. These universal screening practices have been included in virtually every federal plan that issued recommendations on abating the nuisance. Trial Tr. (6/21/19 a.m., Hawkins) at 25:11-20. Defendants' expert, Dr. Timothy Fong, agrees SBIRT is an important tool to help patients access OUD treatment. Trial Tr. (6/24/19 p.m., Hawkins) at 108:7-14. The Oklahoma Opioid Commission also recommends promoting and encouraging "the use of SBIRT tools by primary care and other providers to increase the identification of addiction and make appropriate referrals for treatment." S-0210 at 8.

966. Universal Screening has two components. Trial Tr. (6/21/19 a.m., Hawkins) at 22:3-9. The first component of Universal Screening supports the costs of providing SBIRT services to SoonerCare members in the State of Oklahoma. Trial Tr. (6/21/19 a.m., Hawkins) at 22:10-23:22; S-4734 at 26. The costs are based on the costs that OHCA incurs to provide these services. Trial Tr. (6/21/19 a.m., Hawkins) at 22:10-23:22; S-4734 at 26, n.37 & 38. Each of the costs per service for SoonerCare SBIRT Services in the State's Abatement Plan are based on established rates by Centers for Medicare and Medicaid Services ("CMS") that are paid under the State's Medicaid program for these screenings and interventions. *Id.*

967. The eligibility assumption for this component of the Plan is based on the number of adult (19-64 year-old) SoonerCare patients reported in fiscal year 2017 (345,919 members). Trial Tr. (6/21/19 a.m., Hawkins) at 22:10-22:24; S-4734 at 26, n.38.

968. The individual services are tiered. Trial Tr. (6/21/2019 a.m., Hawkins) at 22:25-23:22. The first service includes alcohol and/or substance use screening and a brief intervention, of 15-30 minutes with a healthcare provider at a cost of $30.96 to occur once a year, totaling $10,709,652 per year. Trial Tr. (6/21/19 a.m., Hawkins) at 22:10-23:22; S-4734 at 26. The second service is alcohol and/or substance use screening and an intervention greater than 30 minutes at a cost of $60.20 per encounter with a healthcare provider that is estimated to occur up to one time per year, totaling $20,824,324. *Id.* And, the third service is administration of a patient-focused risk assessment with scoring and documentation. *Id.* This occurs when a SoonerCare member has a negative screen. *Id.* The provider is eligible to be paid for that screening service they provided at a cost of $3.53 per encounter two times per year, totaling $2,442,188 per year. *Id.* Even though Universal Screening contemplates screening becoming routine care at every patient health care visit, Universal Screening only covers 4 screenings per year, regardless of how many times a patient goes to the doctors. Trial Tr. (6/21/19 p.m., Hawkins) at 80:23-81:2; S-4734, at 42-43.

969. The second component of Universal Screening is to widely disseminate the practice of SBIRT within primary care practices and emergency departments throughout the State. Trial Tr. (6/21/19 a.m., Hawkins) at 23:23-25:7; S-4734 at 27. This is a model of moving clinical guidelines into practice. Trial Tr. (6/21/19 a.m., Hawkins) at 23:23-25:7.

CME is one way to train a practitioner about new guidelines issued in the field of medicine. *Id.* CME may increase knowledge, but practices require more intensive support in their practice to actually implement these clinical guidelines, particularly when they're complex or when a provider does not have fundamental training. *Id.* For example, in the case of interventions around substance use, practice dissemination actually places a practice facilitator into a primary care practice and engages with front and back office staff and the physician. *Id.* Practice dissemination sets up the electronic medical record with the practice to make sure it can support these services. *Id.* It ensures that the workflow is actually in place so that SBIRT can be implemented seamlessly throughout the practice. *Id.*

970. This component of the State's Abatement Plan is estimated to serve 2,157 primary care practices and emergency departments in Oklahoma. Trial Tr. (6/21/19 a.m., Hawkins) at 25:7-9; S-4734 at 27.

971. Practice dissemination and embedding universal screening, intervention, and referral widely into Oklahoma's primary care practices and emergency departments cost $25,000 per site in the first year. Trial Tr. (6/21/19 a.m., Hawkins) at 24:18-25:10; S-4734 at 27, n.40. The most intensive part of practice dissemination starts in the first year. *Id.* For years two through five, the costs decrease to $6,250 per year. *Id.* The cycle then repeats, so at the sixth year, the practice starts the dissemination again. *Id.* This cycle is necessary because clinical guidelines change in that period of time. *Id.* There also can be a tremendous amount of staff turnover in the practice or emergency department. *Id.* There also may be new management and new medicines. *Id.* Practice dissemination is required to be an ongoing process of ensuring evidence-based clinical practices continue. *Id.*

972. The total yearly cost for these Universal Screening services in 2019 dollars is based partially on a repeating 5-year cost structure, with a cost of $89,975,632 for the first year and $48,577,409 for each of years 2 through 5. The net present value of these costs over a 20-year, 25-year and 30-year period is $974,127,550, $1,169,262,657 and $1,348,184,483, respectively. *See* S-4734 at 26-27.

973. The costs for Universal Screening are necessary and reasonable expenses to implement SoonerCare SBIRT services and SBIRT Practice Dissemination. Trial Tr. (6/21/19 a.m., Hawkins) at 25:21-25; Trial Tr. (6/25/19 a.m., Commissioner White) at 100:3-7; Trial Tr. (6/26/19 p.m., Commissioner White) at 129:21-130:1.

ix. Pharmacy Disposal

974. Developing pharmacy-based medication take-back programs is necessary to abate the nuisance. Trial Tr. (6/21/19 a.m., Hawkins) at 27:21-24; Trial Tr. (6/25/19 a.m., Commissioner White) at 100:3-7; Trial Tr. (6/26/19 p.m., Commissioner White) at 129:21-130:1; S-4734 at 28. The interim director of the Oklahoma Pharmacy Board recommends that all pharmacies maintain pharmacy disposal sites throughout the State. Trial Tr. (6/24/19 p.m., Hawkins) at 17:1-4.

975. In order to abate the nuisance, it is important that prescription opioids are disposed of safely and properly to avoid unnecessary and harmful exposure. Trial Tr. (6/21/19 a.m., Hawkins) at 26:1-22; *see, also* U.S. Commission (S-1574) at 55 ("Many misusers of prescription drugs have indicated they received prescriptions from their family and friends' medicine cabinets."). More disposal sites for prescription opioid medications are needed throughout the State of Oklahoma. Trial Tr. (6/21/19 a.m., Hawkins) at 26:4-

22. Sites need to be accessible to rural Oklahomans. *Id.* Some Oklahomans have to travel long distances from their home to reach a law enforcement agency or a county that may only have one disposal box provided by OBN. *Id.* A state and national recommendation to address the nuisance is to utilize the retail pharmacy network that already exists in the State to provide additional sites to the community for disposal of prescription opioids. *Id.* People are likely to go to their local pharmacy, even in a rural area of the State. *Id.* There are small and medium-sized community pharmacies that are well positioned for this service. *Id.*

976. The costs for pharmacy disposal are based on the costs to develop a pharmacy take-back program in King County, Washington. Trial Tr. (6/21/19 a.m., Hawkins) at 26:23-27:6; S-4734, S-4734 at 28, n.41 & 42. The costs per site were applied to the total number of sites—1,182—recommended by the Oklahoma State Board of Pharmacy. Trial Tr. (6/21/19 a.m., Hawkins) at 27:3-20; S-4734 at 28, n.43. The year 1 startup cost per site in 2019 dollars is $1,207. Trial Tr. (6/21/19 a.m., Hawkins) at 27:10-11; S-4734 at 28. Year one operating cost per site is $7,469. Trial Tr. (6/21/19 a.m., Hawkins) at 27:11-12; S-4734 at 28. Year two operating cost per site is $7,832. Trial Tr. (6/21/19 a.m., Hawkins) at 27:12-13; S-4734 at 28.

977. In addition, there are overall costs. Trial Tr. (6/21/19 a.m., Hawkins) at 27:13-14; S-4734 at 28. For year one, there are overall start-up costs of $86,000 and operating costs of $532,275. Trial Tr. (6/21/19 a.m., Hawkins) at 27:12-14; S-4734 at 28. In year two, there are overall operating costs of $558,119. Trial Tr. (6/21/19 a.m., Hawkins) at 27:14-15; S-4734 at 28. The total year-one startup costs for the program are $1,426,674. Trial Tr. (6/21/19 a.m., Hawkins) at 27:16-18; S-4734 at 28. The total year 1 operating

costs are $8,828,358. Trial Tr. (6/21/19 a.m., Hawkins) at 27:16-19; S-4734 at 28. And, the year 2 operating costs are $9,257,424. Trial Tr. (6/21/19 a.m., Hawkins) at 27:16-20; S-4734 at 28.

978. The total yearly cost for these services in 2019 dollars is $10,255,032 for the first year and $9,257,424 for each subsequent year. The net present value of these costs over a 20-year, 25-year and 30-year period is $158,800,183, $190,410,850 and $219,395,068, respectively. *See* S-4734 at 28.

979. The costs for the pharmacy disposal program are necessary and reasonable expenses to implement the pharmacy disposal program in the State of Oklahoma. Trial Tr. (6/21/19 a.m., Hawkins) at 27:25-28:4; Trial Tr. (6/25/19 a.m., Commissioner White) at 100:3-7; Trial Tr. (6/26/19 p.m., Commissioner White) at 129:21-130:1.

x. Pain Services

980. Pain prevention and non-opioid pain management therapies, including cognitive behavioral therapy for pain, physical therapy, and exercise programs are necessary to abate the nuisance. Trial Tr. (6/21/19 a.m., Hawkins) at 32:22-33:1; Trial Tr. (6/25/19 a.m., Commissioner White) at 100:3-7; Trial Tr. (6/26/19 p.m., Commissioner White) at 129:21-130:1; S-4734 at 29-30.

981. The purpose of pain services is to establish a pain prevention and non-pharmacologic or nonopioid pain management benefit program in the State of Oklahoma. Trial Tr. (6/21/19 a.m., Hawkins) at 28:8-20; S-4734 at 29-30. 11.5 percent of the Abatement Plan is allocated to preventing or treating pain. S-4734 at 29-30. The program would include evidence-based approaches to nonopioid pain management therapies that

can be part of patient's multilevel pain plan. Trial Tr. (6/21/19 a.m., Hawkins) at 28:8-20; S-4734 at 29-30. Even if a patient is using opioid therapy, they may receive benefits from these additional pain prevention treatments and non-opioid pain management therapies. *Id.* And, if a patient is not a candidate for opioid therapy, many of these programs have documented success in treating chronic pain. *Id.*

982. There are three components of pain services. Trial Tr. (6/21/19 a.m., Hawkins) at 28:21-23; S-4734 at 29-30. The first component is a pain management benefit program for SoonerCare members. Trial Tr. (6/21/19 a.m., Hawkins) at 28:24-31:51; S-4734 at 29. The pain management benefit program for SoonerCare members includes the following services: Acupuncture, additional treating physician/NPP E&M oversight, chiropractic care, DME-bracing, etc., epidural steroid injections, home health services, median nerve ablation, mediation by trained instructor, osteopathic manipulation therapy, outreach/training, members/providers, physical therapy, spinal cord stimulators, additional transportation costs, and yoga/exercise therapy. Trial Tr. (6/21/19 a.m., Hawkins) at 29:2-6; S-4734 at 29.

983. The types of services in the pain management benefits program are evidence-based or evidence-informed services for the treatment of chronic pain. Trial Tr. (6/21/19 a.m., Hawkins) at 29:13-30:1. There are many research studies that have demonstrated the success of these therapies. Trial Tr. (6/21/19 a.m., Hawkins) at 29:23-24. For example, the Veterans Administration ("VA"), recently convened a conference, termed a state-of-the-art conference. *Id.* at 29:16-30:1. These are conferences where experts in their field are brought together to review evidence and make recommendations to the federal VA health

system. *Id.* They convened a conference on nonopioid pain management therapies. *Id.* As part of that panel, and in addition to many other research studies that have looked at these therapies, they made recommendations to the federal VA system to support systemwide at least seven of the pain services in the State's Abatement Plan. *Id.*

984. The costs for each of these services is based on CMS rates that OHCA pays for these services. Trial Tr. (6/21/19 a.m., Hawkins) at 29:2-10. To ascertain the costs of the services, OHCA estimated the number of sessions per year that a SoonerCare member could be eligible for these services and then calculated the costs at a per member cost. Trial Tr. (6/21/19 a.m., Hawkins) at 29:2-10; S-4734 at 29. There also are administrative and personnel costs to oversee and administer the pain management benefit program. Trial Tr. (6/21/19 a.m., Hawkins) at 29:10-12; S-4734 at 29.

985. Eligibility for pain management benefits is defined as the number of SoonerCare members that are receiving three or more opioid prescriptions in a 12-month period January 1, 2017-December 31, 2017. Trial Tr. (6/21/19 a.m., Hawkins) at 30:2-9; S-4734 at 29, n.46. That equals 32,178 SoonerCare members. *Id.* The cost per eligible member is $2,904. Trial Tr. (6/21/19 a.m., Hawkins) at 30:9; S-4734 at 29 (containing detailed cost information underlying the $2,904 cost per eligible). Total per eligible cost in 2018 is $93,444,912 ($2,904 x 32,178). Trial Tr. (6/21/19 a.m., Hawkins) at 31:2-5; S-4734 at 29, n.46.

986. The administrative and personnel costs to oversee and administer the pain management benefits program, including salary and benefits, is $593,617. Trial Tr. (6/21/19 a.m., Hawkins) at 30:11-12; S-4734 at 29.

987. The costs for the pain management benefits program are reasonable and in fact, conservative. Trial Tr. (6/21/19 a.m., Hawkins) at 30:13-31:1. This benefits program would exist for a very small portion of SoonerCare members in Oklahoma. *Id.* This would not be open to all Oklahomans. *Id.* The number of eligible members is based on SoonerCare members likely to be receiving chronic opioid therapy and thus, may benefit from nonopioid therapies. *Id.* As such, only a conservative number of Oklahomans would be able to receive these pain management benefits. *Id.*

988. The second component of Pain Services is the cost of physical therapists or occupational therapists or similar providers to operate within the Oklahoma county health department system. Trial Tr. (6/21/19 a.m., Hawkins) at 31:6-21; S-4734 at 30. There is a need for three of these providers per Oklahoma State Health Department district. *Id.* There are 14 districts. *Id.* This would allow all Oklahomans to have access to these professionals, education and services. *Id.*

989. The cost for a full-time physical therapist, occupational therapist, or similar provider in salary and benefits is $75,000 per year, totaling $3,150,000 ($75,000 per person x 3 persons per district (one coordinator and two specialists (e.g., physical therapist, occupational therapist, or similar)) x 14 districts). *Id*; S-4734 at 30, n.47. This second component also includes supply costs of $1,000 per provider per year for a total of $42,000 ($1,000 per person x 3 persons per district x 14 districts). Trial Tr. (6/21/19 a.m., Hawkins) at 31:22-32:3; S-4734 at 30, n.48 These supplies would include equipment or manipulatives that are required for physical therapy services. Trial Tr. (6/21/19 a.m., Hawkins) at 32:1-3.

990. The third component of Pain Services is cognitive behavioral therapy for the treatment of chronic pain. Trial Tr. (6/21/19 a.m., Hawkins) at 32:4-21; S-4734 at 30.

991. Cognitive behavioral therapy is valuable for the treatment of chronic pain. Trial Tr. (6/21/19 a.m., Hawkins) 32:9-12. This evidence-based approach to pain management needs to be more widely disseminated. *Id.*

992. The cost for the third component of the plan, includes the cost of $2,500 per eligible user. *Id.* at 32:4-21; S-4734 at 30. The number of eligible users is calculated based on five percent of the number of SoonerCare members receiving 3 or more opioid prescriptions in a twelve-month period from January 1, 2017 through December 31, 2017, which equates to 1,608.9 eligible users at a total cost of $4,022,250 (1,608.9 users x $2,500). Trial Tr. (6/21/19 a.m., Hawkins) at 32:9-21; S-4734 at 30, n.49 & 50.

993. The total yearly cost for these services in 2019 dollars is $103,277,835. The net present value of these costs over a 20-year, 25-year and 30-year period is $1,760,479,834, $2,113,135,316 and $2,436,489,548, respectively. *See* S-4734 at 29-30.

994. The costs for Pain Services are reasonable and necessary to implement the Pain Services component of the State's Abatement Plan. Trial Tr. (6/21/19 a.m., Hawkins) at 33:2-6; Trial Tr. (6/25/19 a.m., Commissioner White) at 100:3-7; Trial Tr. (6/26/19 p.m., Commissioner White) at 129:21-130:1.

xi. K12 Prevention

995. Providing all K-12 schools training, program materials, and support services from ODMHSAS to implement defined age-appropriate, evidence-based prevention programs, including Botvin LifeSkills Training, PAX Good Behavior Game and Penn

Resiliency Program, is necessary to abate the nuisance. Trial Tr. (6/21/19 a.m., Hawkins) at 33:11-22; 34:19-20; 39:21-25; Trial Tr. (6/25/19 a.m., Commissioner White) at 100:3-7; Trial Tr. (6/26/19 p.m., Commissioner White) at 129:21-130:1; S-4734 at 101-04. According to the youth risk behavior survey, in 2017, approximately 16.4% of Oklahoma high school students – or four (4) students in a classroom of 25 – misused prescription opioids in the past year. Trial Tr. (6/25/19 a.m., Commissioner White) at 77:8-16; *see also* Ct. Ex. 111 (illustrating data in aid of Commissioner White's testimony); Trial Tr. (6/20/19 p.m., Hawkins) at 111:9-20; Trial Tr. 6/24/19 a.m., Hawkins) at 70:2-5 & 74:13-15.

996. The Youth Risk behavior survey is a State sample drawn by OSDH for the CDC. Trial Tr. (6/24/19 a.m., Hawkins) at 74:13-21. It allows the State to compare Oklahoma to the rest of the country. *Id.* Opioid use among young people is one of the most prevalent substances in Oklahoma and it is highly co-occurring with other substances. Trial Tr. (6/24/19 a.m., Hawkins) at 92:14-16. Abatement will occur when the State returns to pre-1996 levels of youth prescription misuse of opioids, at a time when these levels were very low. Trial Tr. (6/24/19 a.m., Hawkins) at 86:25 & 88:4. Prevention in schools also is one of the ways the State reduces new cases of OUD through a reduction in the improper use of opioid medications. Trial Tr. (6/24/19 a.m., Hawkins) at 88:13-20. These classroom prevention interventions are needed to abate the nuisance. Trial Tr. (6/24/19 a.m., Hawkins) at 91:22-92:5. These prevention programs will directly affect opioid use. Trial Tr. (6/24/19 a.m., Hawkins) at 88:13-20; Trial Tr. (6/24/19 a.m., Hawkins) at 77:1-2.

997. It is critically necessary and urgent to have primary prevention for youths in Oklahoma schools to fully abate the nuisance. Trial Tr. (6/21/19 a.m., Hawkins) at 33:11-

34:20. It is critical to move upstream to protect children from opioid use disorder and risk factors for OUD. *Id.*; Trial Tr. (6/20/19 p.m., Hawkins) at 112:1-113:4 & 117:22-118:1. In order to do this, three Oklahoma K-12 programs need to be implemented at the classroom level: (1) the Botvin Lifeskills Training Program; (2) the PAX Good Behavior Game Program;[75] and (3) the Penn Resiliency Program. *Id.*; *see also* Trial Tr. (6/24/19 a.m., Hawkins) at 90:5-10; S-4734 at 101-04.

998. These programs are well-established, evidence-based programs that improve outcomes for young people and reduce risk factors for the development of addiction, including comorbid health problems. Trial Tr. (6/21/19 a.m., Hawkins) at 33:11-34:20. The Botvin Lifeskills Training Program has been tested in dozens of studies and demonstrated a 26 percent reduction in nonmedical use of prescription drugs among children. *Id.*; Trial Tr. (6/24/19 a.m., Hawkins) at 77:1-7. There have been longitudinal studies on the PAX Good Behavior Game looking at children who received this program in the first grade and who were then followed into adulthood. *Id.* These studies reported an approximately 60 percent reduced likelihood of opiate initiation in addition to 12 or more other beneficial outcomes related to other youth problem behaviors. *Id.* The Penn Resiliency Program is one of the premiere youth prevention programs that looks at conditions, such as depression, that are highly comorbid with OUD. *Id.* Because these are evidence-based prevention programs, the State is confident they are going to result in

[75] The State's expert, Ms. Hawkins, oversees the implementation of the Good Behavior Game in Oklahoma. Trial Tr. (6/24/19 a.m., Hawkins) at 76:6-7.

reductions in the misuse of prescription opioids by Oklahoma youth. Trial Tr. (6/24/19 a.m., Hawkins) at 90:5-18.

999. The U.S. Commission recognizes a "compelling need to integrate evidence-based prevention programs in large scale outreach programs within schools," including universal interventions such as the Good Behavior Game and LifeSkills Training. S-1574 at 41-42.

1000. The Penn Resiliency program is not currently offered in the State of Oklahoma because the State does not have the resources to do so. Trial Tr. (6/24/19 a.m., Hawkins) at 85:10-14. There is a small operation of Botvin's LifeSkills in Oklahoma in certain elementary, middle and high schools. Trial Tr. (6/24/19 a.m., Hawkins) at 85:16-21.

1001. There are several components of K12 Prevention. Trial Tr. (6/21/19 a.m., Hawkins) at 34:21-23; S-4734 at 101-04. First, there are personnel, local travel and supplies required to implement the three prevention programs. Trial Tr. (6/21/19 a.m., Hawkins) at 34:21-35:10; S-4734 at 101. These expenses are required to administer these programs throughout the State, and to scale all of these services to Oklahoma schools in a way that ensures the programs are implemented with fidelity, properly evaluated, demonstrating improvements, and that all of the necessary training and support is being provided in Oklahoma schools for ongoing implementation. Trial Tr. (6/21/19 a.m., Hawkins) at 34:21-35:10.

1002. First, personnel are required to implement K12 prevention. Trial Tr. (6/21/19 a.m., Hawkins) at 35:10-36:2; S-4734 at 101. The salaries and benefits for the personnel