

# **Practitioner Diversion Awareness Conference**

Drugs of Abuse and Trends Antonio R Guzman Associate Section Chief (D) Liaison Unit







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### **Course Objectives**

#### - Discuss the Public Health Epidemic.

Review the common drugs of abuse.

- Discuss the relationship between pharmaceutical controlled substances and heroin.



### **Course Objectives**

- Discuss the violence related to controlled substance prescribing and dispensing.

- Review key research and studies involving the impact of indiscriminate prescribing of controlled substances.



### **Questions to Discuss**

At the completion of this block of instruction you will be able to answer the following questions:

1. Which country, per million population, has the largest amount of drug induced deaths ages 15-64?

2. Where does Delaware rate in the United States in the amount of Hydrocodone dispensed?



### **Questions to Discuss**

**3.** What percentage of the world's hydrocodone production does the United States consume?

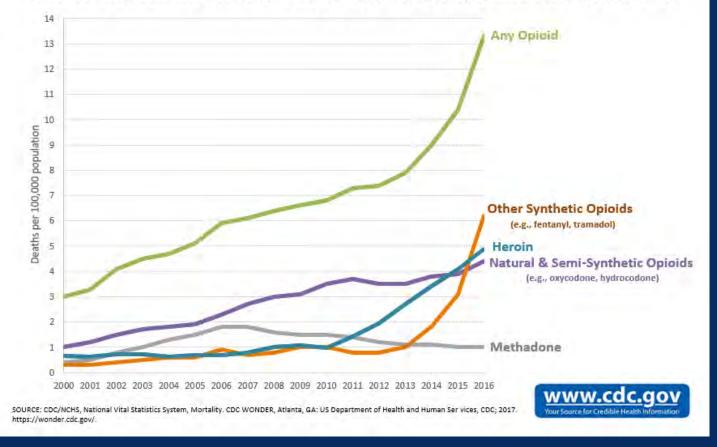
4. What is the most misused prescription controlled substance pain reliever in the United States?

5. What percent of heroin users began their addictions with prescribed pain relievers?



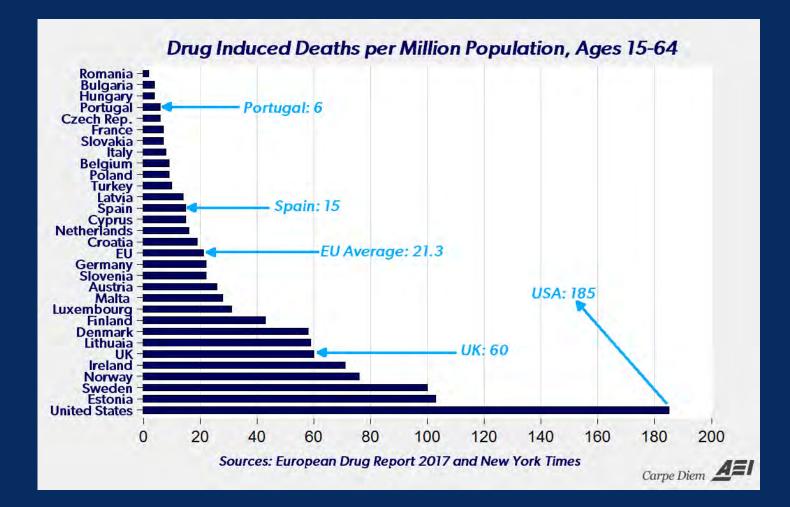
### **The Problem – People Are Dying**

Overdose Deaths Involving Opioids, by Type of Opioid, United States, 2000-2016





### **The Problem – People Are Dying**



U.S. Drug Enforcement Administration Diversion Control Division



## **Drugs of Abuse**

The top 5 distributed scheduled controlled substances in the United States:

- 1. Hydrocodone
- 2. Oxycodone
- 3. Amphetamine
- 4. Methylphenydate
- 5. Codeine





### Where Does the United States Rank In Consumption?

	United S	States	Chi	na	World
	(Pop. 32	<b>0 Mil.</b> )	(Pop. 1.3'	7 Billion)	(7.3 Bil)
Drug Name	Percent	Tons	Percentage	Tons	Tons
Hydrocodone			0.00%	0.001	36.3
Oxycodone			1.08%	0.9	83.2
Morphine			3.92%	1.6	40.8
Codeine			2.66%	7.6	285.5
Methadone			4.56%	1.5	32.9
Fentanyl			0.32%	0.006	1.85

Source (2017). INCB data, International Narcotics Board: Comments on Reported Statistics on Narcotic Drugs.



Hydrocodone

- Hydrocodone / Acetaminophen (toxicity)
- Similarities:
  - Structurally related to codeine
  - Equal to morphine in producing opiate-like effects
- Brand Names: Vicodin<sup>®</sup>, Lortab<sup>®</sup>, Lorcet<sup>®</sup>







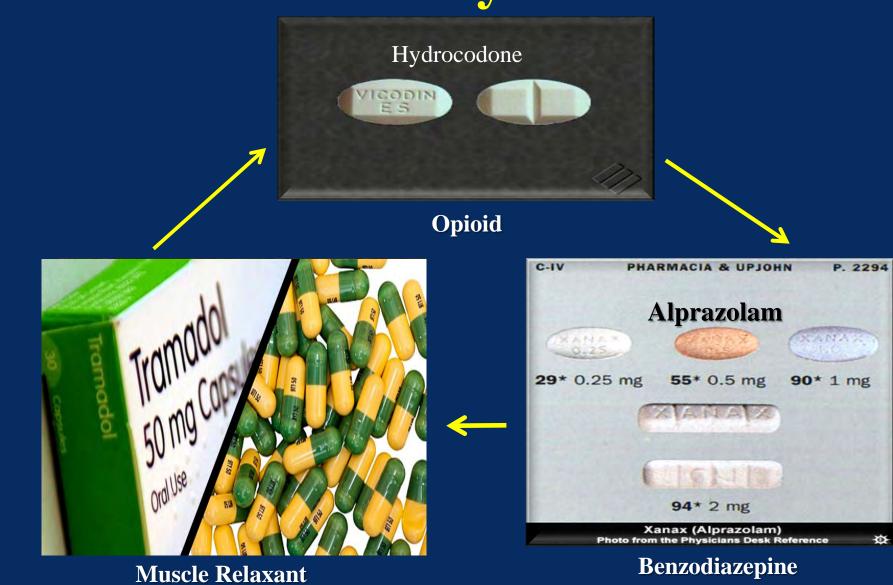
### - October 6, 2014 moved to SCHEDULE II



- <u>Street prices</u>: \$2 to \$10 per tablet depending on strength & region



### **The Trinity Cocktail**





### Hydrocodone Distribution 2012-2017 U.S. Totals

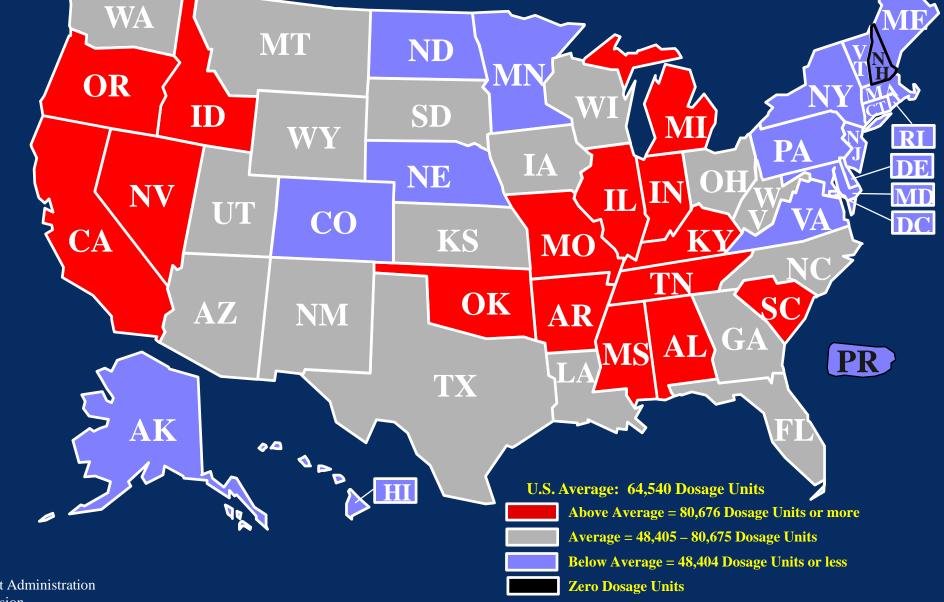


Drug Enforcement Administration, Diversion Control Division, Pharmaceutical Investigations Section, Targeting and Analysis Unit

#### Source: ARCOS Date Prepared: 07/19/2018



**Purchases of Hydrocodone for January - December, 2017** 





### Hydrocodone Distribution Retail Pharmacies



### State Ranking Average Per 100K Population\* Hydrocodone

#### **January – December 2018**

RANK	STATE	TOTAL	RANK	STATE	TOTAL	RANK	STATE	TOTAL	RANK	STATE	TOTAL	RANK	STATE	TOTAL
1	КҮ	3,188,067	12	NV	1,945,054	23	IA	1,377,053	34	ME	968,733	45	NH	504,394
2	AL	3,170,657	13	KS	1,928,574	24	UT	1,374,397	35	AK	918,542	46	DE	456,158
3	ОК	2,893,355	14	wv	1,901,637	25	WY	1,316,359	36	ND	886,377	47	MD	402,421
4	AR	2,861,115	15	SC	1,864,541	26	NE	1,284,863	37	РА	876,701	48	СТ	385,228
5	TN	2,397,920	16	OR	1,766,073	27	NC	1,261,528	38	VA	847,729	49	MA	351,637
6	IN	2,396,883	17	МТ	1,664,945	28	FL	1,192,959	39	со	830,638	50	IN	253,277
7	MI	2,370,022	18	тх	1,585,340	29	ОН	1,168,451	40	н	806,587	51	VI	181,725
8	ID	2,335,084	19	GA	1,584,913	30	SD	1,140,159	41	RI	724,803	52	DC	153,144
9	MS	2,146,729	20	СА	1,559,081	31	NM	1,139,457	42	MN	656,179	53	GU	46,909
10	LA	2,133,678	21	IL	1,540,258	32	AZ	1,103,984	43	NY	592,057	54	PR	5,740
11	мо	1,994,749	22	WA	1,392,248	33	WI	1,067,834	44	νт	545,467	55	AS	0

\* Business Activity – Retail Pharmacies

Source: Drug Enforcement Administration, Office of Diversion Control, Pharmaceutical Investigations Section, Targeting and Analysis Unit Most current ARCOS information as of 08/27/2016



### Hydrocodone Distribution Practitioner's Office



#### **State Ranking Average Per 100K Population\*** Hydrocodone **January – December 2018**

STATE	TOTAL	RANK	STATE	TOTAL	RANK	STATE	TOTAL	RANK	STATE	TOTAL	RANK	STATE	TOTAL
н	25,091	12	NV	4,893	23	IA	3,488	34	LA	2,482	45	KS	1,635
GA	8,376	13	FL	4,766	24	NJ	3,100	35	SD	2,456	46	AR	1,594
MO	7,351	14	MT	4,760	25	WI	3,053	36	NY	2,134	47	SC	1,028
WY	6,988	15	WA	4,593	26	MN	2,990	37	ОН	2,082	48	VT	991
СА	6,775	16	ID	4,333	27	UT	2,951	38	MA	2,053	49	DC	897
ND	6,551	17	AL	4,114	28	СТ	2,667	39	GU	2,018	50	NM	883
MD	6,484	18	AZ	4,089	29	NE	2,602	40	тх	2,015	51	MS	571
IL	6,041	19	TN	3,925	30	MI	2,576	41	DE	1,993	52	NH	135
AK	5,300	20	VA	3,815	31	RI	2,537	42	ME	1,882	53	AS	0
со	5,219	21	ОК	3,670	32	IN	2,528	43	WV	1,867	54	PR	0
OR	5,173	22	КҮ	3,511	33	РА	2,508	44	NC	1,718	55	VI	0
	HI GA MO WY CA ND MD IL AK CO OR	HI       25,091         GA       8,376         MO       7,351         WY       6,988         CA       6,775         ND       6,551         MD       6,484         IL       6,041         AK       5,300         CO       5,219         OR       5,173	HI       25,091       12         GA       8,376       13         MO       7,351       14         WY       6,988       15         CA       6,775       16         ND       6,551       17         MD       6,484       18         IL       6,041       19         AK       5,300       20         CO       5,219       21         OR       5,173       22	HI       25,091       12       NV         GA       8,376       13       FL         MO       7,351       14       MT         WY       6,988       15       WA         CA       6,775       16       ID         ND       6,551       17       AL         MD       6,484       18       AZ         IL       6,041       19       TN         AK       5,300       20       VA         CO       5,219       21       OK         OR       5,173       22       KY	HI25,09112NV4,893GA8,37613FL4,766MO7,35114MT4,760WY6,98815WA4,593CA6,77516ID4,333ND6,55117AL4,114MD6,48418AZ4,089IL6,04119TN3,925AK5,30020VA3,815CO5,21921OK3,670OR5,17322KY3,511	HI25,09112NV4,89323GA8,37613FL4,76624MO7,35114MT4,76025WY6,98815WA4,59326CA6,77516ID4,33327ND6,55117AL4,11428MD6,48418AZ4,08929IL6,04119TN3,92530AK5,30020VA3,81531CO5,21921OK3,67032OR5,17322KY3,51133	HI       25,091       12       NV       4,893       23       IA         GA       8,376       13       FL       4,766       24       NJ         MO       7,351       14       MT       4,760       25       WI         WY       6,988       15       WA       4,593       26       MN         CA       6,775       16       ID       4,333       27       UT         ND       6,551       17       AL       4,114       28       CT         MD       6,484       18       AZ       4,089       29       NE         IL       6,041       19       TN       3,925       30       MI         AK       5,300       20       VA       3,815       31       RI         CO       5,219       21       OK       3,670       32       IN         OR       5,173       22       KY       3,511       33       PA	HI25,09112NV4,89323IA3,488GA8,37613FL4,76624NJ3,100MO7,35114MT4,76025WI3,053WY6,98815WA4,59326MN2,990CA6,77516ID4,33327UT2,951ND6,55117AL4,11428CT2,667MD6,48418AZ4,08929NE2,602IL6,04119TN3,92530MI2,537CO5,21921OK3,67032IN2,528OR5,17322KY3,51133PA2,508	HI25,09112NV4,89323IA3,48834GA8,37613FL4,76624NJ3,10035MO7,35114MT4,76025WI3,05336WY6,98815WA4,59326MN2,99037CA6,77516ID4,33327UT2,95138ND6,55117AL4,11428CT2,66739MD6,48418AZ4,08929NE2,60240IL6,04119TN3,92530MI2,57641AK5,30020VA3,81531RI2,53742CO5,21921OK3,67032IN2,52843OR5,17322KY3,51133PA2,50844	HI       25,091       12       NV       4,893       23       IA       3,488       34       LA         GA       8,376       13       FL       4,766       24       NJ       3,100       35       SD         MO       7,351       14       MT       4,766       25       WI       3,053       36       NY         WY       6,988       15       WA       4,593       26       MN       2,990       37       OH         CA       6,775       16       ID       4,333       27       UT       2,951       38       MA         ND       6,551       17       AL       4,114       28       CT       2,667       39       GU         MD       6,484       18       AZ       4,089       29       NE       2,667       40       TX         IL       6,041       19       TN       3,925       30       MI       2,576       41       DE         AK       5,300       20       VA       3,815       31       RI       2,537       42       ME         CO       5,219       21       OK       3,670       32       IN       2,508	HI       25,091       12       NV       4,893       23       IA       3,488       34       LA       2,482         GA       8,376       13       FL       4,766       24       NJ       3,100       35       SD       2,456         MO       7,351       14       MT       4,760       25       WI       3,053       36       NY       2,134         WY       6,988       15       WA       4,593       26       MN       2,990       37       OH       2,082         CA       6,775       16       ID       4,333       27       UT       2,951       38       MA       2,053         ND       6,551       17       AL       4,114       28       CT       2,667       39       GU       2,018         MD       6,484       18       AZ       4,089       29       NE       2,602       40       TX       2,015         IL       6,041       19       TN       3,925       30       MI       2,537       42       ME       1,882         CO       5,219       21       OK       3,670       32       IN       2,508       44       NC	HI       25,091       12       NV       4,893       23       IA       3,488       34       LA       2,482       45         GA       8,376       13       FL       4,766       24       NJ       3,100       35       SD       2,456       46         MO       7,351       14       MT       4,760       25       WI       3,053       36       NY       2,134       47         WY       6,988       15       WA       4,593       26       MN       2,990       37       OH       2,082       48         CA       6,775       16       ID       4,333       27       UT       2,951       38       MA       2,053       49         ND       6,551       17       AL       4,114       28       CT       2,667       39       GU       2,018       50         MD       6,484       18       AZ       4,089       29       NE       2,602       40       TX       2,015       51         IL       6,041       19       TN       3,925       30       MI       2,537       42       ME       1,882       53         AK       5,300 <td< td=""><td>HI       25,091       12       NV       4,893       23       IA       3,488       34       LA       2,482       45       KS         GA       8,376       13       FL       4,766       24       NJ       3,100       35       SD       2,456       46       AR         MO       7,351       14       MT       4,760       25       WI       3,053       36       NY       2,134       47       SC         WY       6,988       15       WA       4,593       26       MN       2,990       37       OH       2,082       48       VT         CA       6,775       16       ID       4,333       27       UT       2,951       38       MA       2,053       49       DC         ND       6,551       17       AL       4,114       28       CT       2,667       39       GU       2,018       50       NM         MD       6,484       18       AZ       4,089       29       NE       2,602       40       TX       2,015       51       MS         IL       6,041       19       TN       3,925       30       MI       2,537       42</td></td<>	HI       25,091       12       NV       4,893       23       IA       3,488       34       LA       2,482       45       KS         GA       8,376       13       FL       4,766       24       NJ       3,100       35       SD       2,456       46       AR         MO       7,351       14       MT       4,760       25       WI       3,053       36       NY       2,134       47       SC         WY       6,988       15       WA       4,593       26       MN       2,990       37       OH       2,082       48       VT         CA       6,775       16       ID       4,333       27       UT       2,951       38       MA       2,053       49       DC         ND       6,551       17       AL       4,114       28       CT       2,667       39       GU       2,018       50       NM         MD       6,484       18       AZ       4,089       29       NE       2,602       40       TX       2,015       51       MS         IL       6,041       19       TN       3,925       30       MI       2,537       42

Dusuless Acuvuy **Menu I** Machinoriers

> Source: Drug Enforcement Administration, Office of Diversion Control, Pharmaceutical Investigations Section, Targeting and Analysis Unit Most current ARCOS information as of 08/27/2016



### **OxyContin**®

**The 1990s** 







- OxyContin® controlled release formulation of Schedule II
   oxycodone:
  - The controlled release method of delivery allowed for a longer duration of drug action and contained much larger doses of oxycodone.
  - Abusers easily compromised the controlled release formulation by crushing the tablets for a powerful morphine-like high.
  - 10, 20, 40, 80mg available.







- Similar to morphine in effects and potential for abuse/dependence.
- Sold in "Cocktails" such as:
- Oxycodone, Soma ® and Xanax®

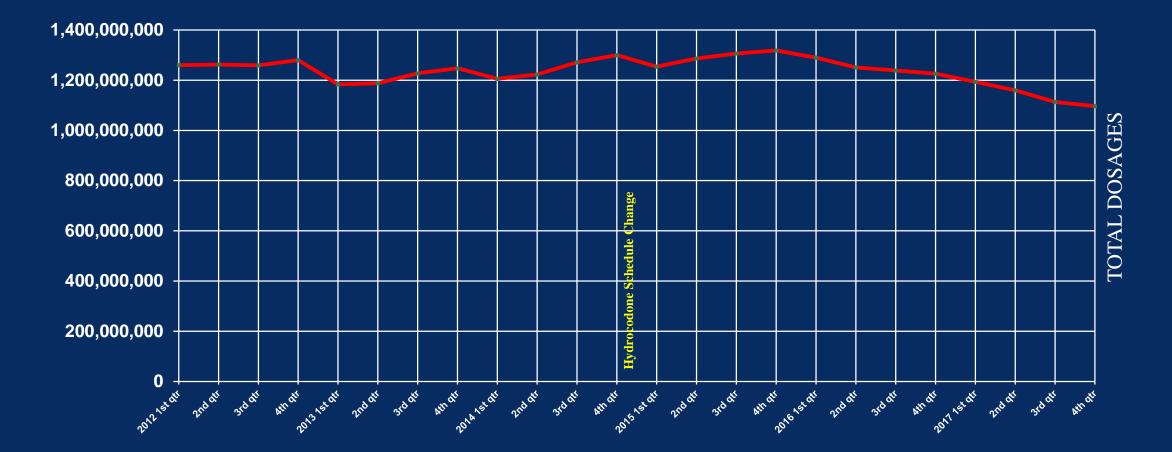




- Street price: Approx. \$80 per 80mg tablet
- 90 tabs prescribed a month =
- \$7200 a month income.
- \$85,400 year.



### Oxycodone Distribution 2012-2017 U.S. Totals







### **Oxycodone Distribution** Retail Pharmacies



#### State Ranking Average Per 100K Population\* Oxycodone January – December 2018

RANK	STATE	TOTAL	RANK	STATE	TOTAL									
1	TN	2,210,000	12	ОК	1,612,469	23	ME	1,351,121	34	VA	1,154,898	45	МІ	745,202
2	DE	2,184,853	13	FL	1,573,010	24	СО	1,340,700	35	IN	1,145,469	46	ND	719,122
3	AZ	1,981,541	14	ОН	1,522,968	25	KS	1,339,171	36	WI	1,144,344	47	SD	657,859
4	NC	1,952,249	15	SC	1,522,007	26	СТ	1,331,781	37	RI	1,109,030	48	СА	611,674
5	OR	1,815,155	16	AL	1,484,259	27	AR	1,306,212	38	VT	1,095,364	49	IA	604,770
6	UT	1,789,318	17	NJ	1,451,008	28	WV	1,290,420	39	NY	1,075,752	50	IL	345,035
7	NV	1,785,517	18	МО	1,421,093	29	MA	1,263,347	40	MS	1,070,969	51	тх	327,842
8	MD	1,713,608	19	WY	1,420,181	30	AK	1,260,635	41	MN	1,028,595	52	PR	194,453
9	KY	1,688,158	20	GA	1,383,768	31	LA	1,245,386	42	н	914,721	53	VI	194,309
10	ΡΑ	1,659,693	21	NH	1,381,153	32	ID	1,231,659	43	DC	829,225	54	GU	186,292
11	WA	1,620,092	22	NM	1,372,984	33	MT	1,188,490	44	NE	795,049	55	AS	0

#### \* Business Activity – Retail Pharmacies

Source: Drug Enforcement Administration, Office of Diversion Control, Pharmaceutical Investigations Section, Targeting and Analysis Unit Most current ARCOS information as of 08/27/2016

U.S. Drug Enforcement Administration Diversion Control Division 28



### Oxycodone Distribution Practitioner's Office



#### State Ranking Average Per 100K Population\* Oxycodone January – December 2018

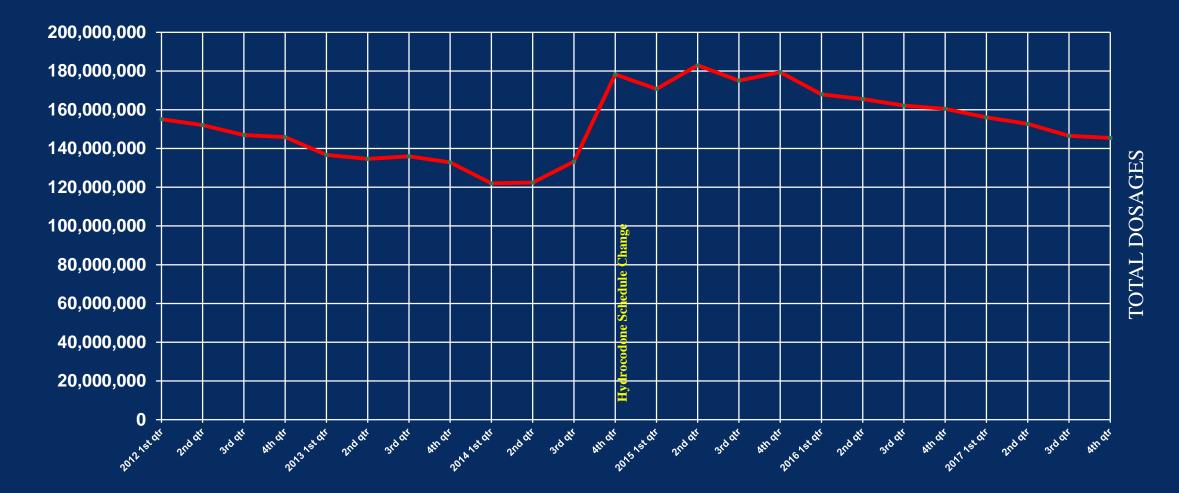
RANK	STATE	TOTAL	RANK	STATE	TOTAL	RANK	STATE	TOTAL	RANK	STATE	TOTAL	RANK	STATE	TOTAL
1	н	15,444	12	OR	916	23	VA	412	34	IL	170	45	КҮ	78
2	KS	10,236	13	ОК	906	24	MO	355	35	RI	154	46	SD	74
3	MD	4,916	14	NV	879	25	ME	346	36	NM	151	47	NC	71
4	GA	2,808	15	AZ	849	26	NJ	342	37	ОН	143	48	DE	56
5	СТ	2,711	16	ID	825	27	СА	296	38	MT	142	49	ТΧ	48
6	CO	2,623	17	AK	703	28	РА	294	39	MS	140	50	WV	5
7	WI	1,643	18	IA	685	29	MI	284	40	IN	131	51	AS	0
8	TN	1,366	19	NY	609	30	AR	216	41	MA	97	52	GU	0
9	NE	1,124	20	WY	463	31	FL	214	42	SC	90	53	PR	0
10	AL	1,065	21	ND	448	32	NH	198	43	UT	87	54	VI	0
11	MN	1,036	22	DC	432	33	WA	182	44	LA	86	55	VT	0

\* Business Activity – Retail Practitioners

Source: Drug Enforcement Administration, Office of Diversion Control, Pharmaceutical Investigations Section, Targeting and Analysis Unit Most current ARCOS information as of 08/27/2016



# Codeine Distribution 2012-2017 U.S. Totals







### **Codeine Distribution** Retail Pharmacies



### State Ranking Average Per 100K Population\* Codeine January – December 2018

RANK	STATE	TOTAL	RANI	STATE	TOTAL	RANK	STATE	TOTAL	RANK	STATE	TOTAL	RANK	STATE	TOTAL
RAINK	STATE	TOTAL	- RAINI	STATE	TOTAL	NAINK	STATE	TOTAL	RANK	STATE	TOTAL	RAINK	STATE	TOTAL
1	тх	505,219	12	КҮ	141,682	23	LA	113,768	34	IN	96,976	45	VA	83,520
2	ОК	272,151	13	AL	139,516	24	FL	112,693	35	ОН	95,253	46	СТ	82,760
3	AR	271,241	14	GA	133,520	25	OR	111,626	36	MN	94,743	47	RI	81,878
4	MI	261,427	(15	DE	132,170	26	WA	110,793	37	NV	94,691	48	NH	75,292
4		201,427			132,170	20	VVA	110,793	57		54,091	40		13,292
5	wv	242,176	16	PA	125,881	27	MS	109,319	38	IA	91,701	49	UT	69,372
6	SC	232,103	17	MD	125,457	28	н	106,366	39	ND	91,272	50	VT	67,624
7	DC	231,075	18	AZ	124,883	29	SD	105,988	40	NY	91,233	51	GU	66,945
		202,075			12-1,000			200,000			51,200			00,540
8	IL	169,563	19	KS	120,025	30	NM	100,164	41	MA	89,803	52	NC	63,091
9	TN	154,312	20	NJ	114,641	31	VI	99,158	42	AK	88,865	53	со	53,869
10	СА	152,756	21	WI	114,520	32	ID	99,146	43	WY	85,560	54	PR	51,687
10		152,750			114,520	52		55,140	+3		83,300	54		51,007
11	МО	149,003	22	МТ	113,835	33	ME	98,277	44	NE	83,664 tration, Office of Dive	55	AS	0

\* Business Activity – Retail Pharmacies

Source: Drug Enforcement Administration, Office of Diversion Control, Pharmaceutical Investigations Section, Targeting and Analysis Unit Most current ARCOS information as of 08/27/2016



### **Codeine Distribution** Practitioner's Office



### State Ranking Average Per 100K Population\* Codeine

#### **January – December 2018**

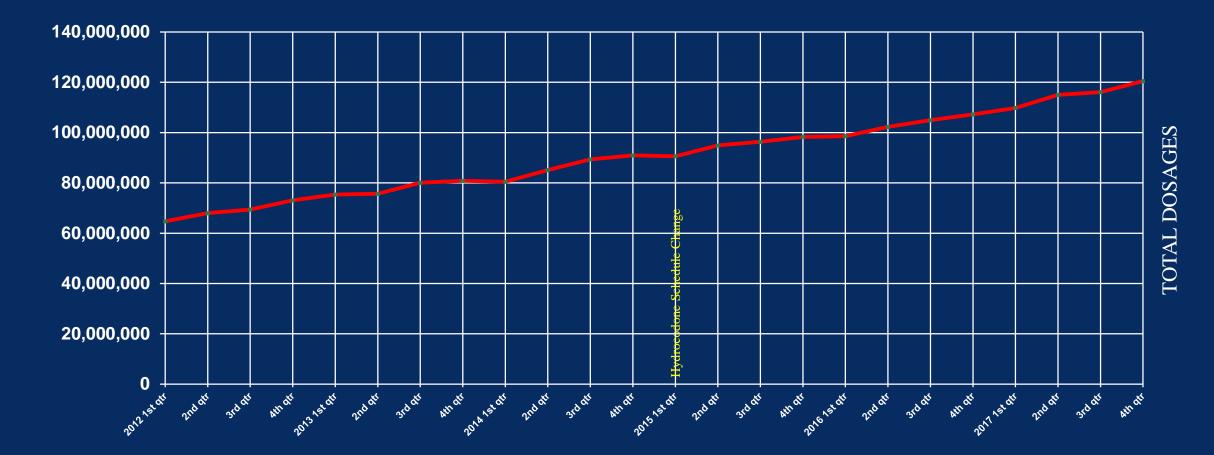
RANK	STATE	TOTAL												
1	OR	5,055	12	ОК	2,106	23	ME	950	34	ND	378	45	DC	166
2	MD	4,887	13	ні	1,802	24	MI	847	35	IA	365	46	NV	161
3	WA	4,624	14	AZ	1,558	25	МТ	778	36	AK	341	47	wv	126
4	РА	4,168	15	TN	1,520	26	AR	737	37	WI	330	48	GU	112
5	ID	4,086	16	KS	1,387	27	NM	707	38	КҮ	324	49	NC	83
6	NE	3,604	17	WY	1,277	28	MA	667	39	FL	297	50	VT	32
7	DE	3,240	18	MN	1,214	29	CO	650	40	IN	273	51	NH	8
8	СА	2,353	19	IL	1,206	30	тх	608	41	SD	270	52	AS	0
9	NJ	2,236	20	AL	1,156	31	UT	590	42	ОН	199	53	PR	0
10	MO	2,227	21	NY	1,116	32	MS	549	43	SC	188	54	RI	0
11	VA	2,192	22	GA	1,072	33	LA	523	44	СТ	166	55	VI	0

\* Business Activity – Practitioners

Source: Drug Enforcement Administration, Office of Diversion Control, Pharmaceutical Investigations Section, Targeting and Analysis Unit Most current ARCOS information as of 08/27/2016



#### **Buprenorphine Distribution** 2012-2017 U.S. Totals



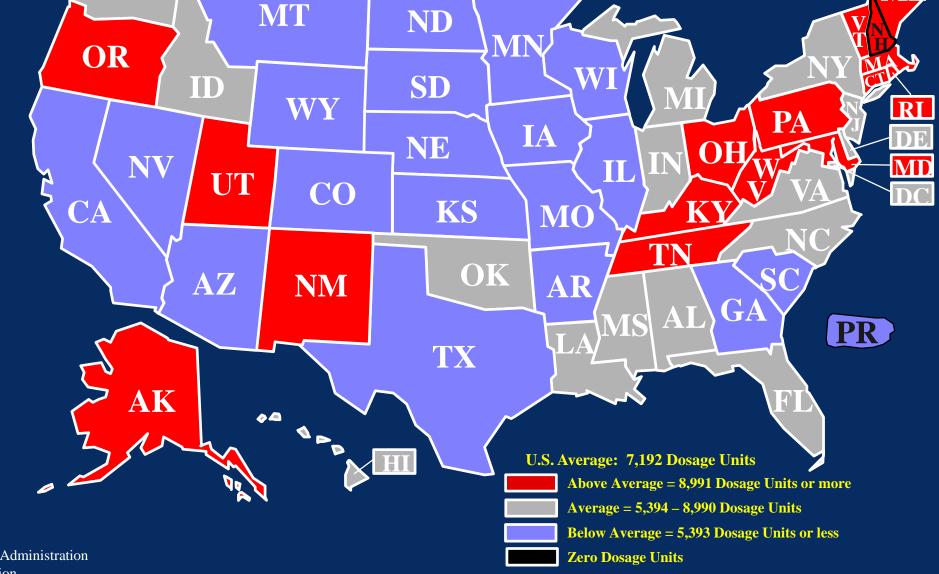
U.S. Drug Enforcement Administration Diversion Control Division

Source: ARCOS Date Prepared: 07/19/2018



WA

**Purchases of Buprenorphine for January - December, 2017** 



ME



#### **Buprenorphine Distribution** Retail Pharmacies



#### State Ranking Average Per 100K Population\* Buprenorphine January – December 2018

RANK	STATE	TOTAL	RANK	STATE	TOTAL									
1	VT	484,947	12	DC	242,437	23	AK	176,679	34	WY	129,534	45	IL	70,058
2	КҮ	460,434	13	ОН	240,905	24	МІ	171,800	35	AR	126,356	46	СА	68,624
3	ME	433,536	14	LA	240,307	25	NJ	171,447	36	МО	121,349	47	тх	64,770
4	WV	410,609	15	MD	234,745	26	NY	169,185	37	WI	107,414	48	KS	50,820
5	RI	399,457	16	ОК	210,494	27	OR	168,248	38	ні	101,835	49	NE	44,275
6	NH	350,898	17	UT	204,999	28	DE	165,081	39	GA	95,134	50	SD	36,332
7	MA	341,614	18	NM	202,037	29	FL	143,015	40	AZ	92,584	51	IA	30,784
8	TN	308,847	19	NC	200,449	30	SC	140,671	41	со	89,355	52	PR	27,014
9	AL	300,725	20	IN	196,758	31	ID	139,300	42	MN	88,826	53	VI	6,055
10	PA	289,959	21	WA	187,888	32	МТ	138,149	43	ND	82,067	54	GU	151
11	СТ	242,795	22	MS	182,902	33	VA	137,444	44	NV	78,500	55	AS	0

\* Business Activity – Retail Pharmacies

Source: Drug Enforcement Administration, Office of Diversion Control, Pharmaceutical Investigations Section, Targeting and Analysis Unit Most current ARCOS information as of 08/27/2016



### **Buprenorphine Distribution** Practitioner's Office



#### State Ranking Average Per 100K Population\* Buprenorphine January – December 2018

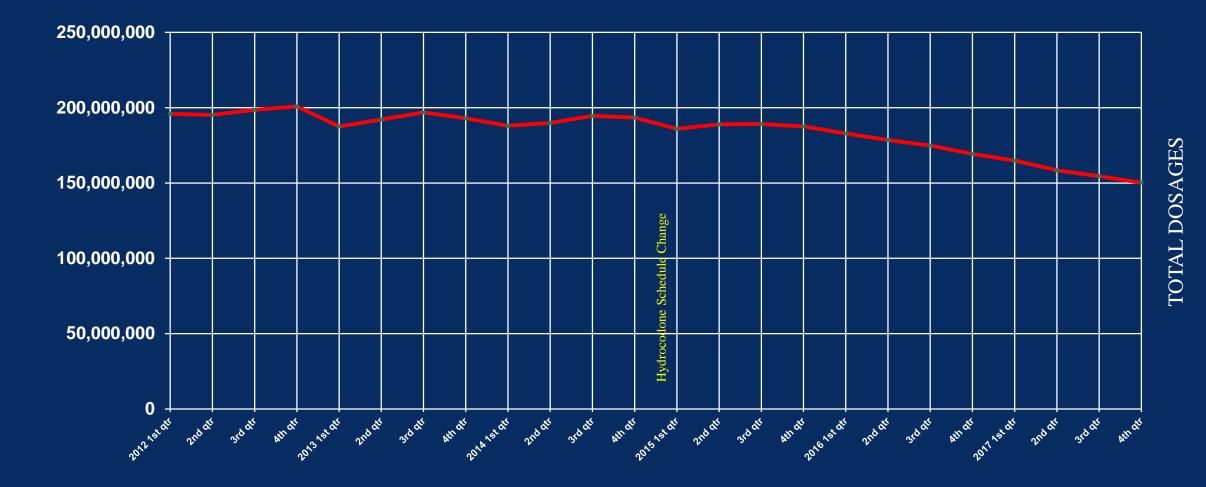
RANK	STATE	TOTAL												
1	ОК	1,681	12	WA	276	23	ОН	99	34	MN	6	45	н	0
2	NJ	1,319	13	FL	260	24	NY	89	35	MS	6	46	IA	0
3	PA	1,197	14	KS	223	25	МО	70	36	AK	4	47	ID	0
4	OR	819	15	КҮ	215	26	TN	44	37	NE	3	48	МТ	0
5	MD	714	16	NV	209	27	AL	43	38	AR	1	49	NH	0
6	МІ	697	17	DE	194	28	RI	24	39	СТ	1	50	PR	0
7	ND	571	18	WI	193	29	VA	12	40	UT	1	51	SD	0
8	GA	345	19	NC	169	30	IL	10	41	NM	<1	52	VI	0
9	тх	339	20	AZ	123	31	ME	10	42	AS	0	53	VT	0
10	со	333	21	SC	119	32	MA	9	43	DC	0	54	wv	0
11	СА	310	22	IN	101	33	LA	7	44	GU	0	55	WY	0

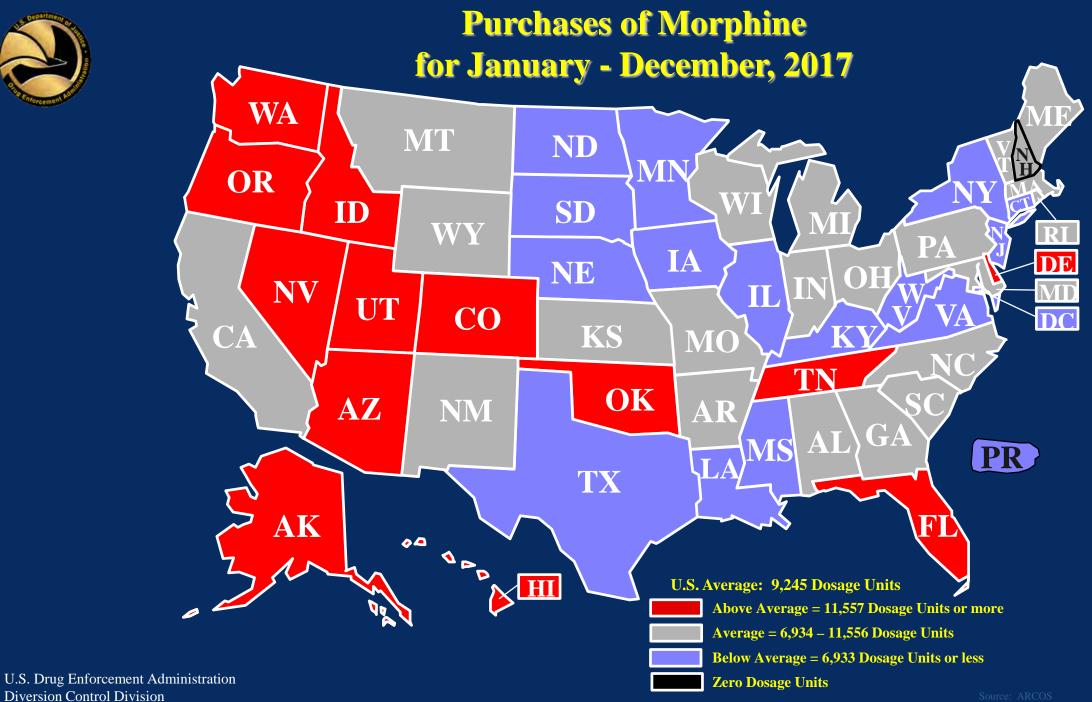
\* **Business Activity** – Practitioners

Source: Drug Enforcement Administration, Office of Diversion Control, Pharmaceutical Investigations Section, Targeting and Analysis Unit Most current ARCOS information as of 08/27/2016



#### Morphine Distribution 2012-2017 U.S. Totals





<sup>44</sup> 

Date Prepared: 07/19/2018



### **Morphine Distribution** Retail Pharmacies



#### State Ranking Average Per 100K Population\* Morphine January – December 2018

RANK	STATE	TOTAL												
1	DE	309,560	12	MI	204,317	23	МО	174,440	34	MS	136,518	45	MN	110,865
2	AZ	309,248	13	AR	197,608	24	СО	174,310	35	NE	130,204	46	NJ	104,662
3	OK	288,281	14	VT	192,735	25	MD	169,992	36	WV	128,171	47	ND	101,041
4	NV	281,845	15	AK	188,841	26	ME	163,782	37	IA	127,287	48	ТХ	97,170
5	TN	277,809	16	PA	186,194	27	NC	161,881	38	KY	123,626	49	IL	90,079
6	OR	268,950	17	WY	182,632	28	HI	155,542	39	MA	123,362	50	NY	88,803
7	FL	251,780	18	SC	182,074	29	IN	151,025	40	SD	120,836	51	DC	52,246
8	ID	242,980	19	NH	180,023	30	NM	150,568	41	ОН	120,709	52	GU	42,930
9	UT	231,859	20	KS	179,011	31	GA	144,684	42	СТ	117,384	53	VI	12,930
10	WA	224,540	21	WI	178,761	32	CA	140,747	43	VA	114,819	54	PR	3,791
11	MT	219,208	22	AL	176,818	33	LA	137,337	44	RI	114,554	55	AS	0

\* Business Activity – Retail Pharmacies

Source: Drug Enforcement Administration, Office of Diversion Control, Pharmaceutical Investigations Section, Targeting and Analysis Unit Most current ARCOS information as of 08/27/2016



### **Morphine Distribution** Practitioner's Office



#### State Ranking Average Per 100K Population\* Morphine January – December 2018

RANK	STATE	TOTAL												
1	HI	1,117	12	DE	51	23	PA	11	34	GU	0	45	NH	0
2	OK	820	13	UT	51	24	ТХ	7	35	IA	0	46	NM	0
3	MD	802	14	MI	42	25	NJ	6	36	IN	0	47	ОН	0
4	GA	270	15	AR	38	26	MN	3	37	KS	0	48	PR	0
5	СТ	260	16	МТ	30	27	МО	3	38	KY	0	49	RI	0
6	ID	249	17	VA	29	28	SC	2	39	LA	0	50	SD	0
7	AL	200	18	CA	20	29	AZ	1	40	MA	0	51	TN	0
8	СО	109	19	WA	19	30	IL	1	41	ME	0	52	VI	0
9	WI	85	20	FL	16	31	AK	0	42	MS	0	53	VT	0
10	NY	57	21	OR	13	32	AS	0	43	NC	0	54	WV	0
11	NV	56	22	NE	11	33	DC	0	44	ND	0	55	WY	0

\* **Business Activity** – Practitioners

Source: Drug Enforcement Administration, Office of Diversion Control, Pharmaceutical Investigations Section, Targeting and Analysis Unit Most current ARCOS information as of 08/27/2016



# **Drug Trends**



# **Heroin and Fentanyl**





- The raw material (opium) to manufacture heroin comes from the poppy plant.
- The raw material (opium) comes from outside of the U.S. Asia, Pakistan, Afghanistan.
- Heroin comes in through different drug routes primarily through Mexico.
- Production : 2011 (30 MT's), 2016 (81) 2017 (111)
- Opium market change \$1300 KG to \$200 KG

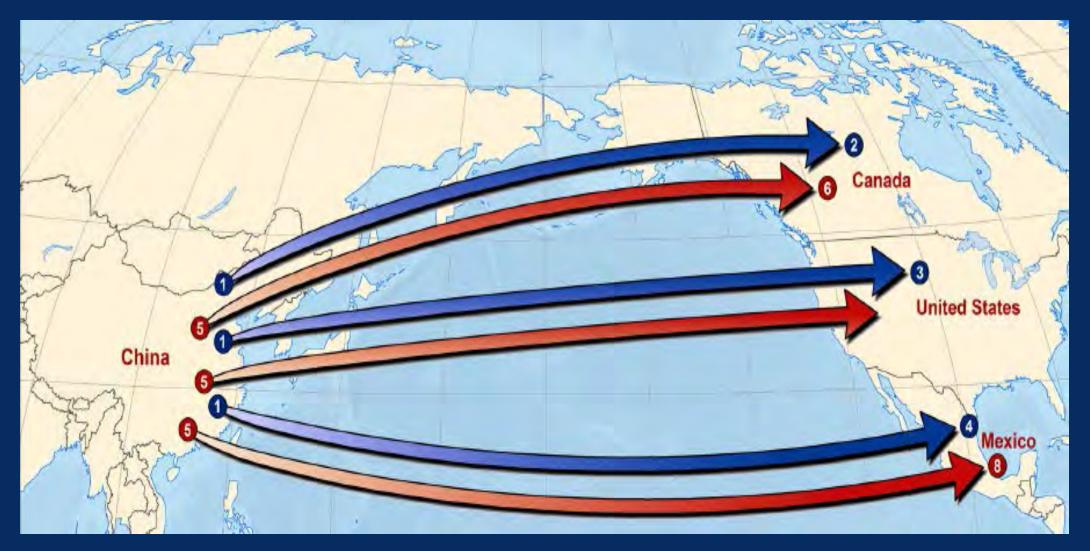




- Fentanyl is a synthetic opioid.
- Fentanyl is very powerful (50-100 times more potent than heroin).
- Dealers are combining Fentanyl with Heroin, pills, marijuana, counterfeit pills, etc.
- Carfentanil (100 times more potent than Fentanyl).



### Fentanyl





# Fentanyl

- Is purchased from China and shipped directly to the United States or smuggled through Mexico.
- May 2015 Chinese Customs seized 46 Kilos of Fentanyl and 26 Kilos of acetyl fentanyl.
- 6 customs officers became ill
- 1 in a coma after handling.





# Fentanyl

- Has been produced in clandestine labs in the United States.
  - DEA LA Field Division
  - Residential location
  - 3 pill presses
  - Powder mixing equipment
  - Ventilation equipment











Fentanyl Dangers to Practitioners

- Be cautious when inventorying personal items in ED or the hospital.

- Be cautious when touching patients.
- Be cautions when going through a patient's personal items.
- Don't ever take back a patient's medications.





#### **From Pills to Heroin**



U.S. Drug Enforcement Administration Diversion Control Division



## **From Pills to Heroin**

• 75% of heroin users switched after first using controlled substance prescription pain relievers. Heroin is much cheaper than prescription drugs. Deck: 1 small bag of heroin (\$8 to \$10) Bundle: 10 bags of heroin



## **Prescription Drug Abuse Trends**



#### **Prescription Drug Abuse**

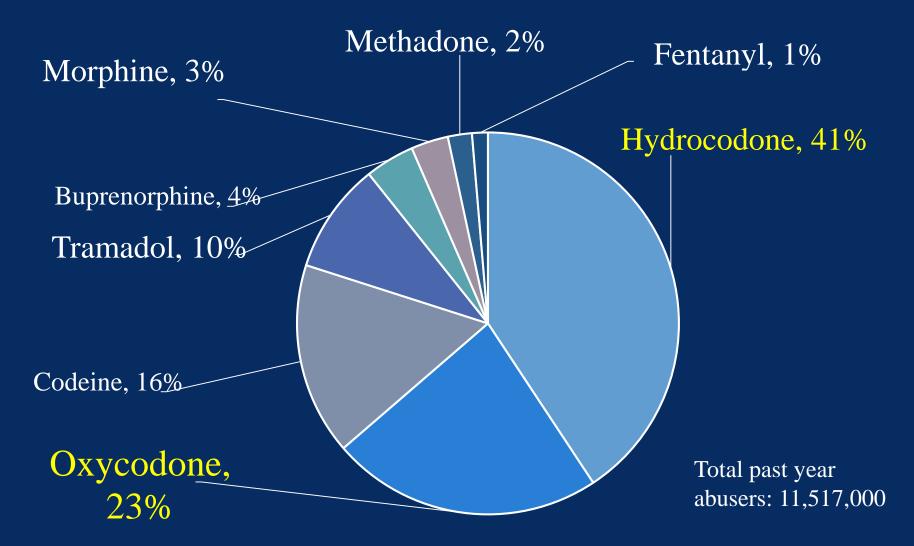
### Is Driven By-

## Indiscriminate Prescribing And Criminal Activity



#### **Prescription Pain Reliever Misuse**

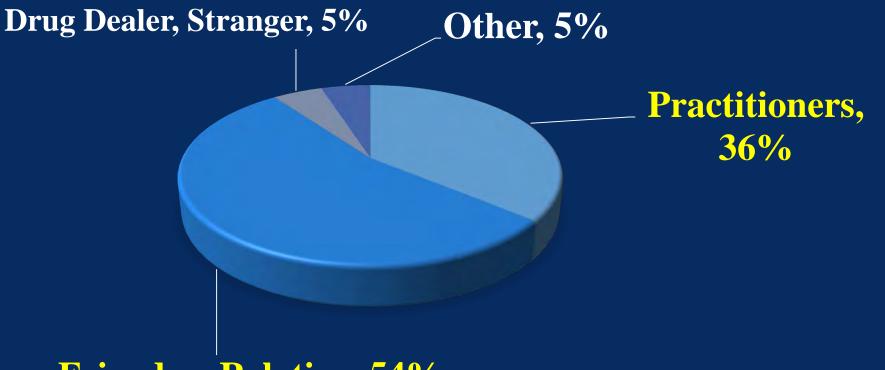
(Age 12 and Older)(2016)



Source: National Survey On Drug Use and Health (2016)



### Where Do They Come From?



#### Friend or Relative, 54%

Source: Department of Health and Human Services



**University of Pennsylvania Dental School Study:** 

 \*More than half of the narcotics prescribed for wisdom teeth removal go unused...findings suggest that more than 100 million pills prescribed go unused... leaving the door open for possible misuse or abuse.

> Source: <u>https://www.pennmedicine.org/news/news-</u> <u>releases/2016/september/100-million-prescription-opioid</u> https://www.nlm.nih.gov/medlineplus/news/fullstory\_159336.html

John Hopkins Study:

- +60% had leftover opioids they hung on for "future use"
- 20% shared their medications
- 8% likely will share w/ friend
- 14% likely will share w/ relative
- >10% securely lock their medication



John Hopkins Study:

- The study further explored adult attitudes towards controlled substances and found:

- 73 percent of adults agreed that children can overdose on opioids more easily than adults.



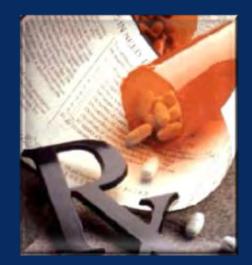
#### John Hopkins Study:

• Yet found that 13% of the respondents "worry" about their children accessing their opioid medications.

- With parents of older children reporting that they were significantly less likely to worry about children accessing medications than parents of younger children.



### Violence



U.S. Drug Enforcement Administration Diversion Control Division



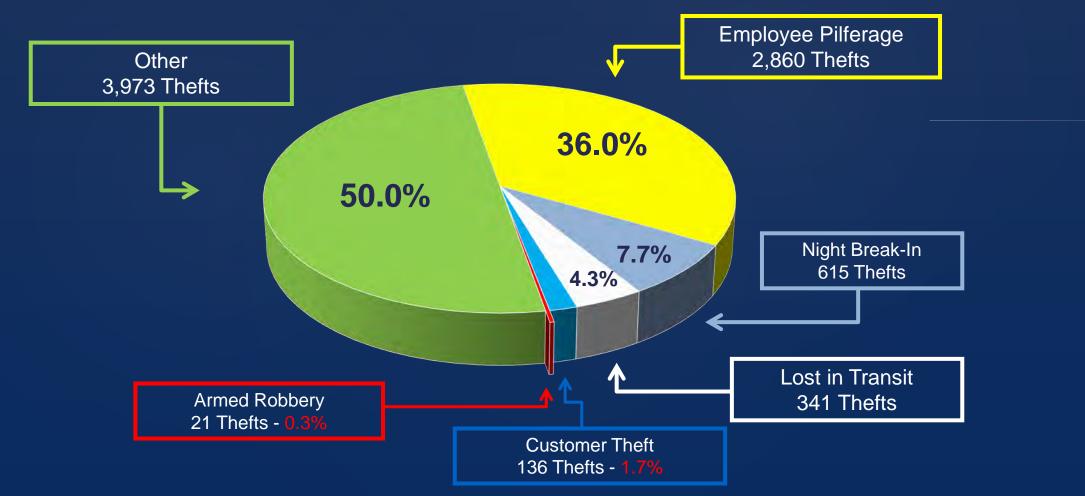
Violence Associated With Opiates

**Communities undergo:** 

- Drug related crimes
  - a. Robberies
  - **b. Burglaries/break ins**
  - c. Drug thefts
- Abuse and neglect of children
- Domestic violence in the home
- Increase of arrests



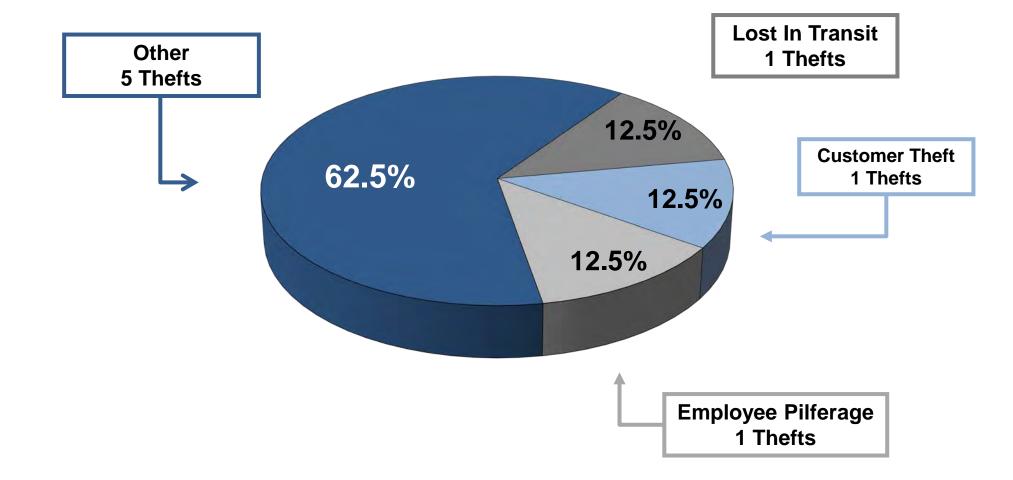
#### Nationwide Practitioners Thefts January 1, 2009 – December 31, 2017



U.S. Drug Enforcement Administration Diversion Control Division

Source: DTL Date Prepared: 04/19/2018

#### Delaware Practitioner Thefts January 1, 2014 – December 31, 2018





#### **Clinical Reminders:**

- Opioids are not first-line or routine therapy for chronic pain.
- Establish and measure goals for pain and function.
- Discuss benefits, risks and availability of non opioid therapies with patients.



#### **Clinical Reminders:**

- Use immediate-release opioids when starting.
- Start low and go slow.
- When opioids are needed for acute pain, prescribe no more than needed.

Source: CDC Morbidity & Mortality Weekly Report CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016, March 15, 2016 www.cdc.gov/drugoverdose/prescribing/guideline.html



**Clinical Reminders:** 

- Do not prescribe ER/LA opioids for acute pain.

- Follow-up and re-evaluate risk of harm; reduce dose or taper and discontinue if needed.

#### - Evaluate risk factors for opioid-related harms.

Source: CDC Morbidity & Mortality Weekly Report CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016, March 15, 2016 www.cdc.gov/drugoverdose/prescribing/guideline.html



#### **Clinical Reminders:**

- Check PDMP for higher dosages and prescriptions from other providers.
- Use urine drug testing to identify prescribed substances and undisclosed use.
- Avoid concurrent benzodiazepine and opioid prescribing.
- Arrange treatment for opioid use disorder if needed.



### Survey of Long-Term Painkiller Users

- Majority say their doctor talked about possibility of addiction or dependence – 61% say there was no discussion about plan to get them off.
- Majority say they used the drugs to relieve pain. Other major reasons for taking them:
  - 20% 'for fun or get high''
  - 14% "to deal with day-to-day stress"
  - 10% "to relax or relieve tension"



### Survey of Long-Term Painkiller Users

- Other Findings:
  - 34% admit being dependent or addicted.
  - 17% have taken painkillers that were not specifically prescribed for them.
  - 14% have given their painkillers to a family member or friend.
  - 20% know or suspect someone was using, taking or selling their painkillers.





1. Which country, per million population, has the largest amount of drug induced deaths ages 15-64?

A. Sweden
B. Germany
C. United States
D. Russia
E. China





# 2. Where does Delaware rate in the United States in the amount of hydrocodone dispensed?

A. 15th
B. 46th
C. 3rd
D. 21st





# **3.** What percentage of the world's hydrocodone production does the United States consume?

A. Less than 10%
B. 34%
C. 50%
D. More than <u>70%</u>





# 4. What is the most misused prescription controlled substance pain reliever in the United States?

A. OxycodoneB. MorphineC. HydrocodoneD. Codeine





# 5. What percent of heroin users began their addictions with prescribed pain relievers?

A. 15%
B. 40%
C. 75%
D. 90%
E. 99%



# Thank-you for your time and attention !

