

Practitioner Diversion Awareness Conference

Drugs of Abuse and Trends

Antonio R Guzman, Associate Section Chief
Liaison Section





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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 New Mexico rate in the United States in the amount of Hydrocodone dispensed?**

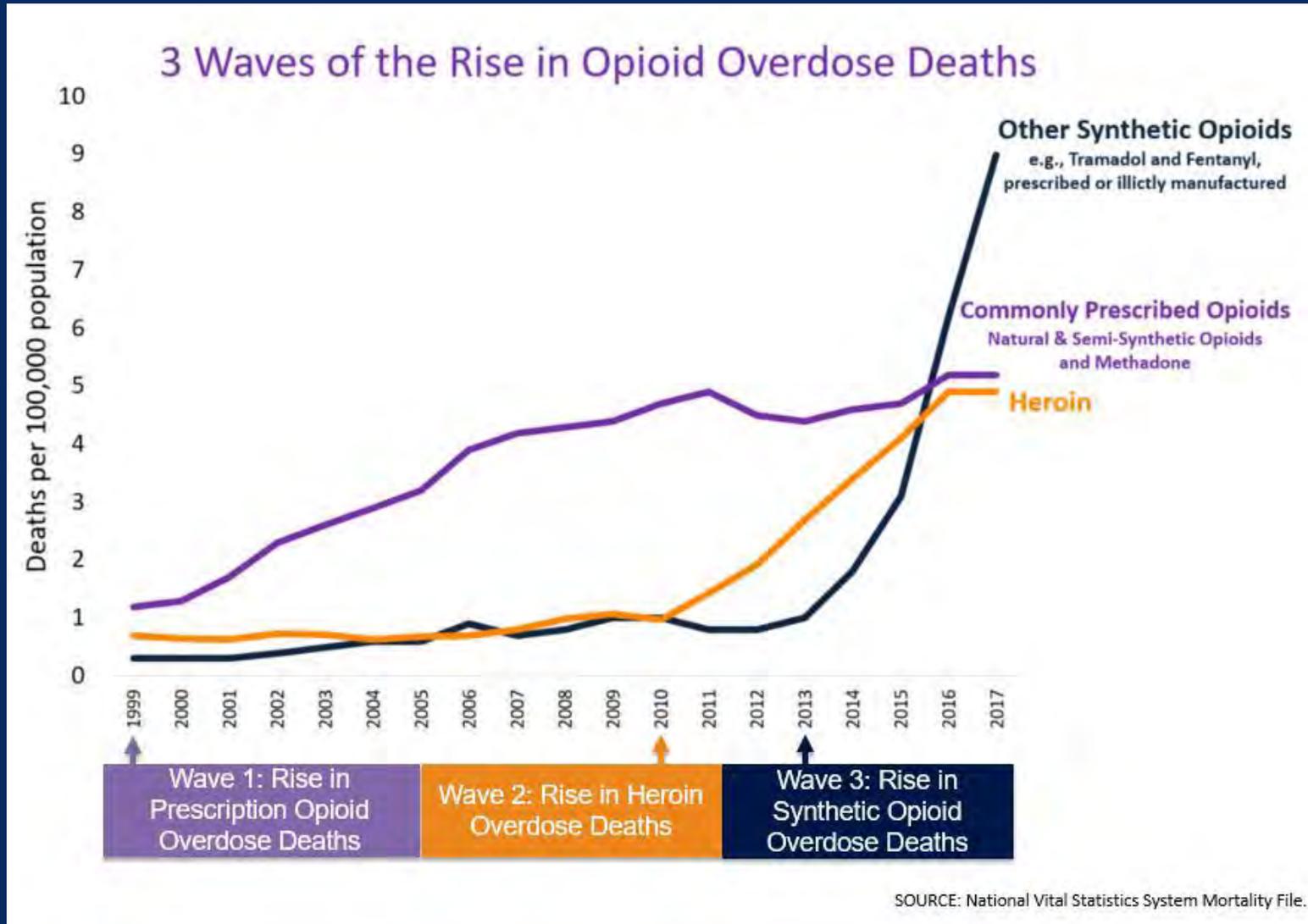


Questions to Discuss

- 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?**

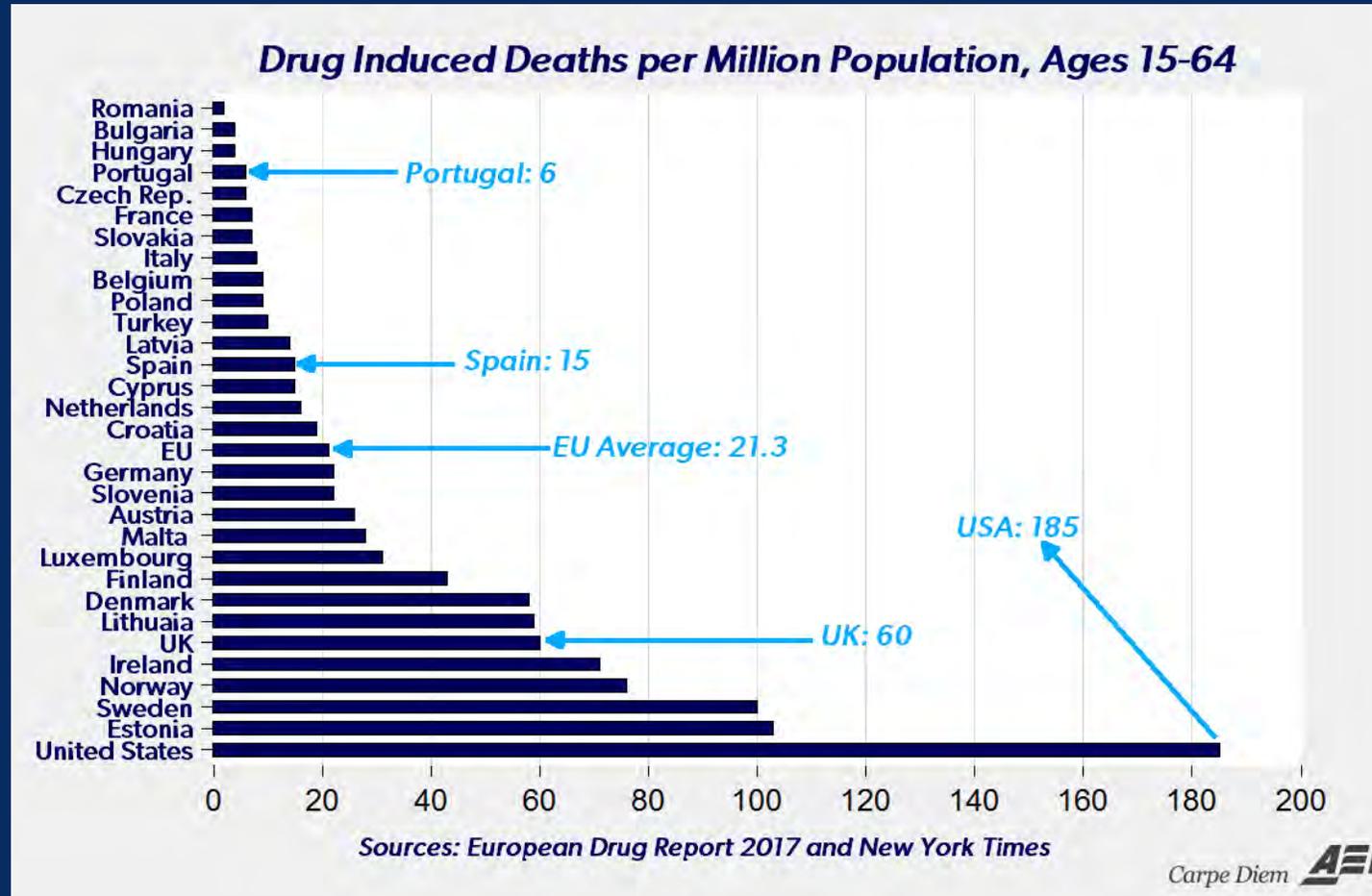


The Problem – People Are Dying





The Problem – People Are Dying





Public Health Epidemic

In 2014, there were **47,055** drug overdose deaths

In 2015, there were **52,404** drug overdose deaths

In 2016, there were **63,632** drug overdose deaths

1. Rudd R, et al. MMWR Morb Mortal Wkly Rep. 2016 Jan 1;64:1378-82.
2. CDC. <https://www.cdc.gov/drugoverdose/data/analysis.html>. Feb 2017. Accessed May 2017.



Public Health Epidemic

In 2017, there were **70,237** drug overdose deaths,
...one death every **7.5** minutes,
...approximately **192** per day,
...**28,466** were due to fentanyl and other synthetic
analogs, other than methadone.



CDC Drug Overdose Data 2018

4.1 % drop in drug overdose deaths (70,237 --- 67,367)

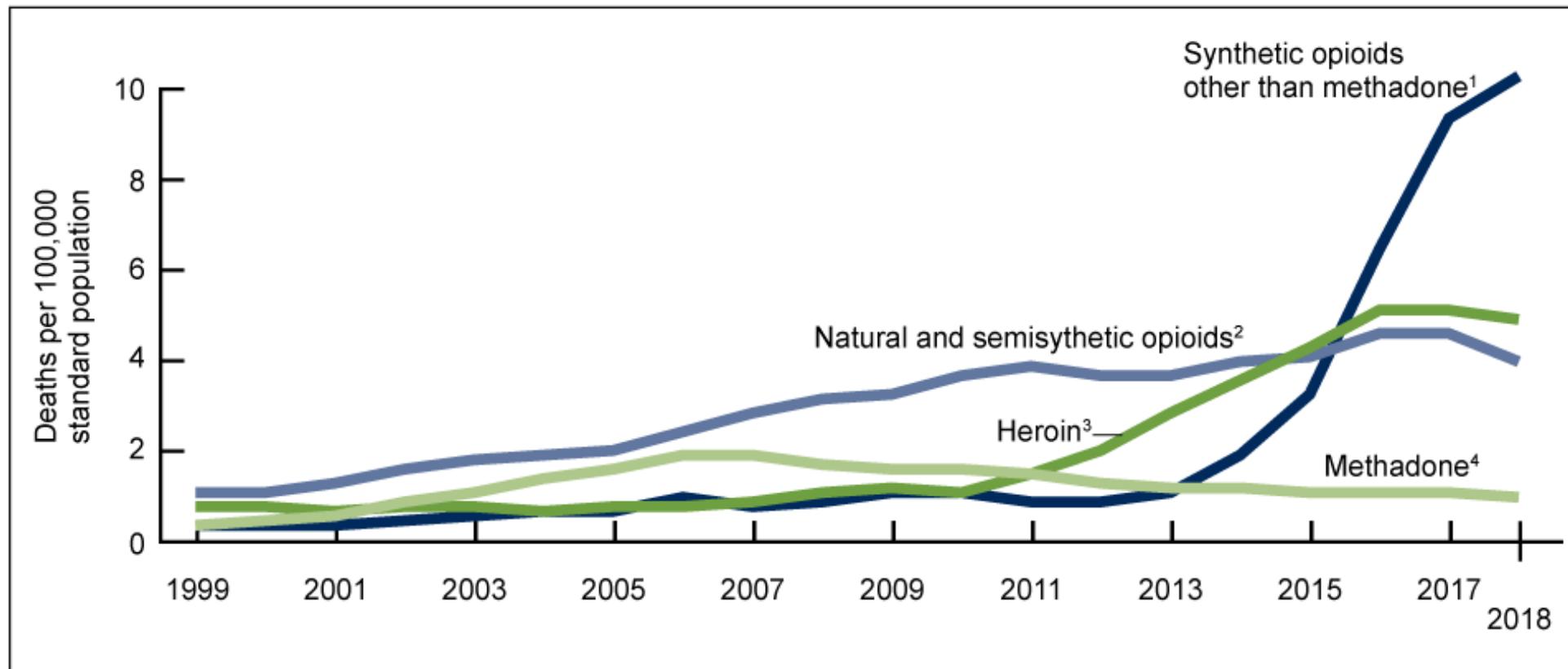
7% decline in prescription opioid deaths 14,495 – 12,552)

10 % increase in deaths involving synthetic opioids(fentanyl, etc)

Rate of deaths involving cocaine more than tripled;

psychostimulants increased nearly five fold

Figure 3. Age-adjusted drug overdose death rates involving opioids, by type of opioid: United States, 1999–2018



¹Significant increasing trend from 1999 through 2006 and 2013 through 2018, with different rates of change over time, $p < 0.05$.

²Significant increasing trend from 1999 through 2018, with different rates of change over time, $p < 0.05$.

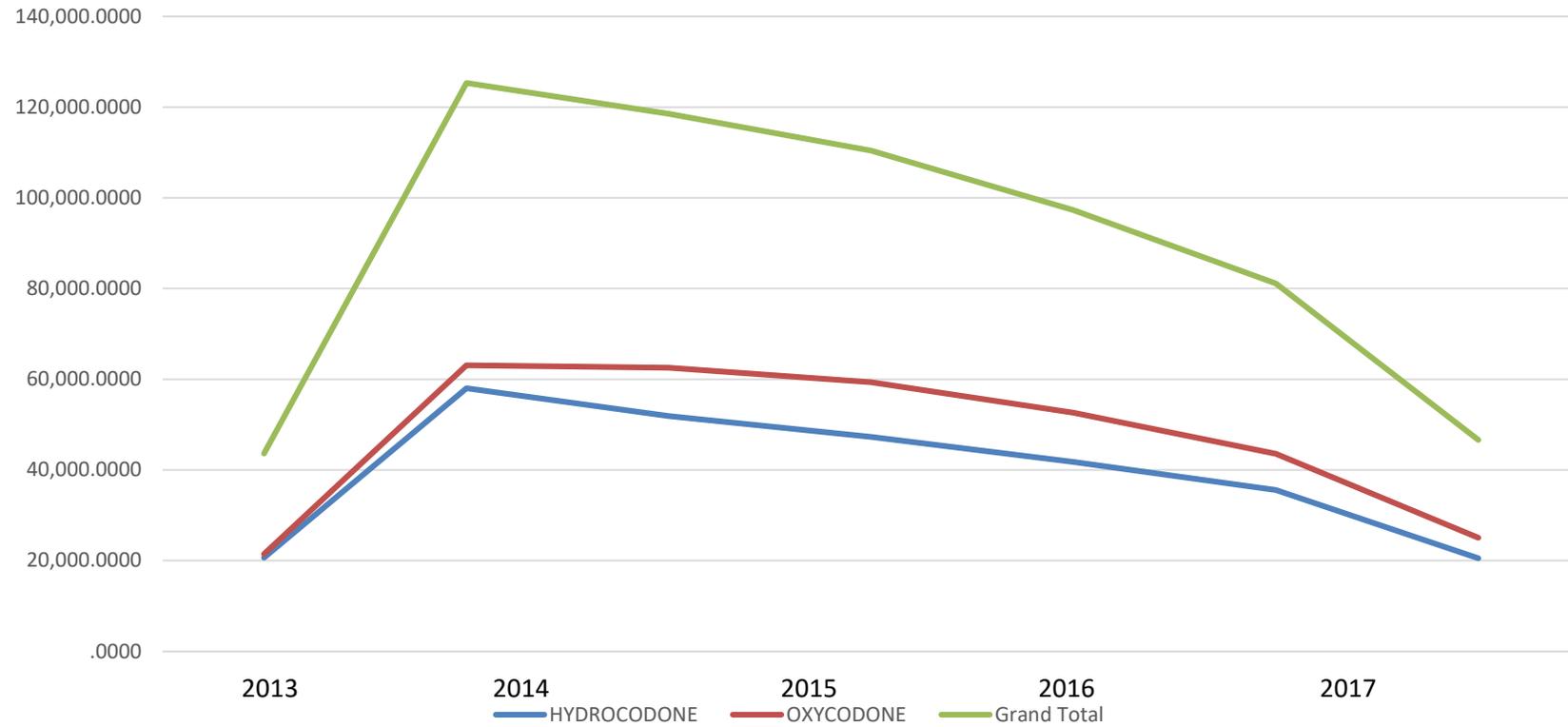
³Significant increasing trend from 2005 through 2015, with different rates of change over time, $p < 0.05$.

⁴Significant increasing trend from 1999 through 2006, then significant decreasing trend from 2006 through 2018, with different rates of change over time, $p < 0.05$.

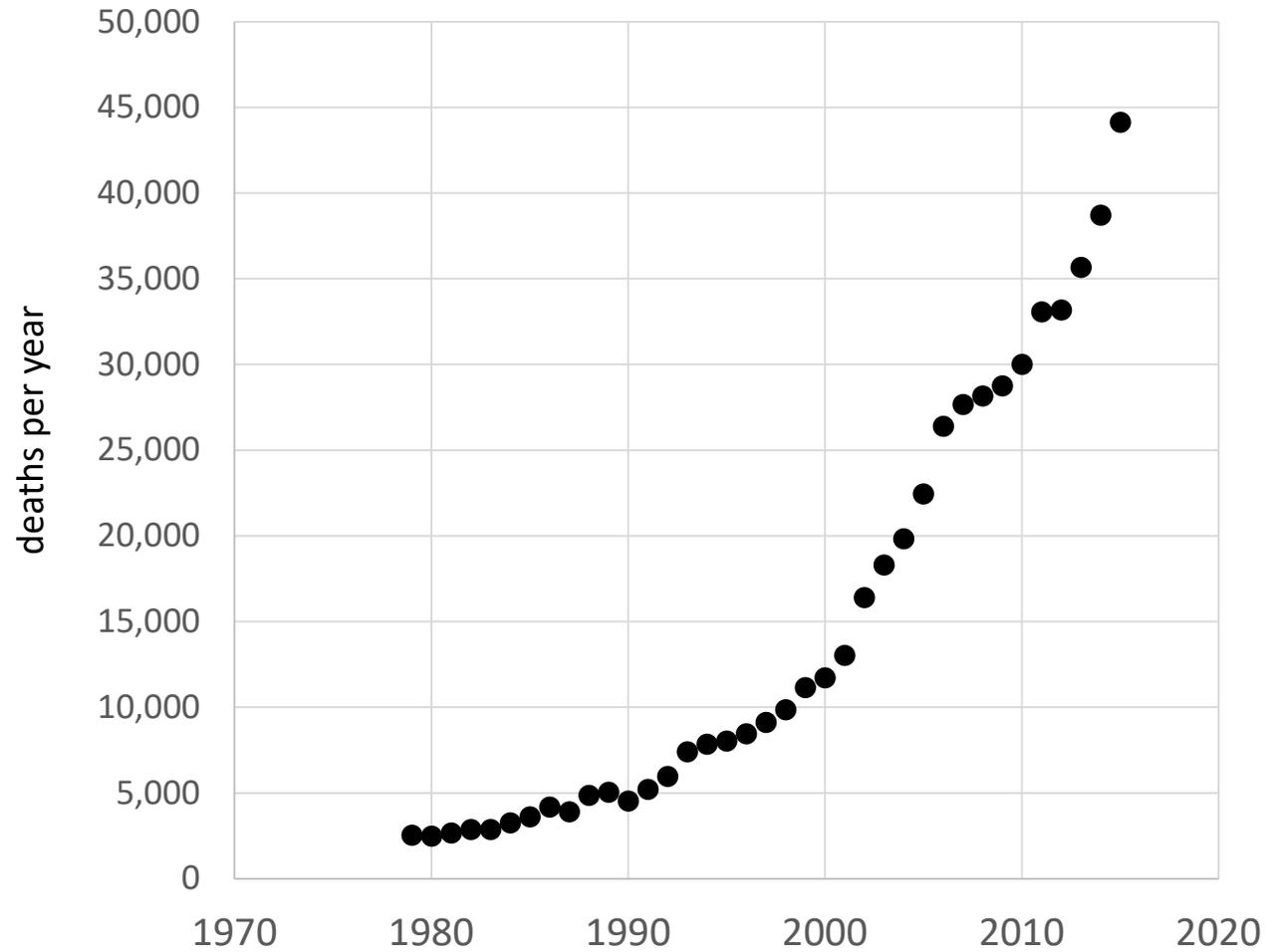
NOTES: Deaths are classified using the *International Classification of Diseases, 10th Revision*. Drug-poisoning (overdose) deaths are identified using underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14. Drug overdose deaths involving selected drug categories are identified by specific multiple-cause-of-death codes: heroin, T40.1; natural and semisynthetic opioids, T40.2; methadone, T40.3; and synthetic opioids other than methadone, T40.4. Deaths involving more than one opioid category (e.g., a death involving both methadone and a natural or semisynthetic opioid) are counted in both categories. Deaths may involve multiple drugs. The percentage of drug overdose deaths that identified the specific drugs involved varied by year, with ranges of 75%–79% from 1999 through 2013 and 81%–92% from 2014 through 2018. Access data table for Figure 3 at: https://www.cdc.gov/nchs/data/databriefs/db356_tables-508.pdf#3.

SOURCE: NCHS, National Vital Statistics System, Mortality.

Opioids Sales

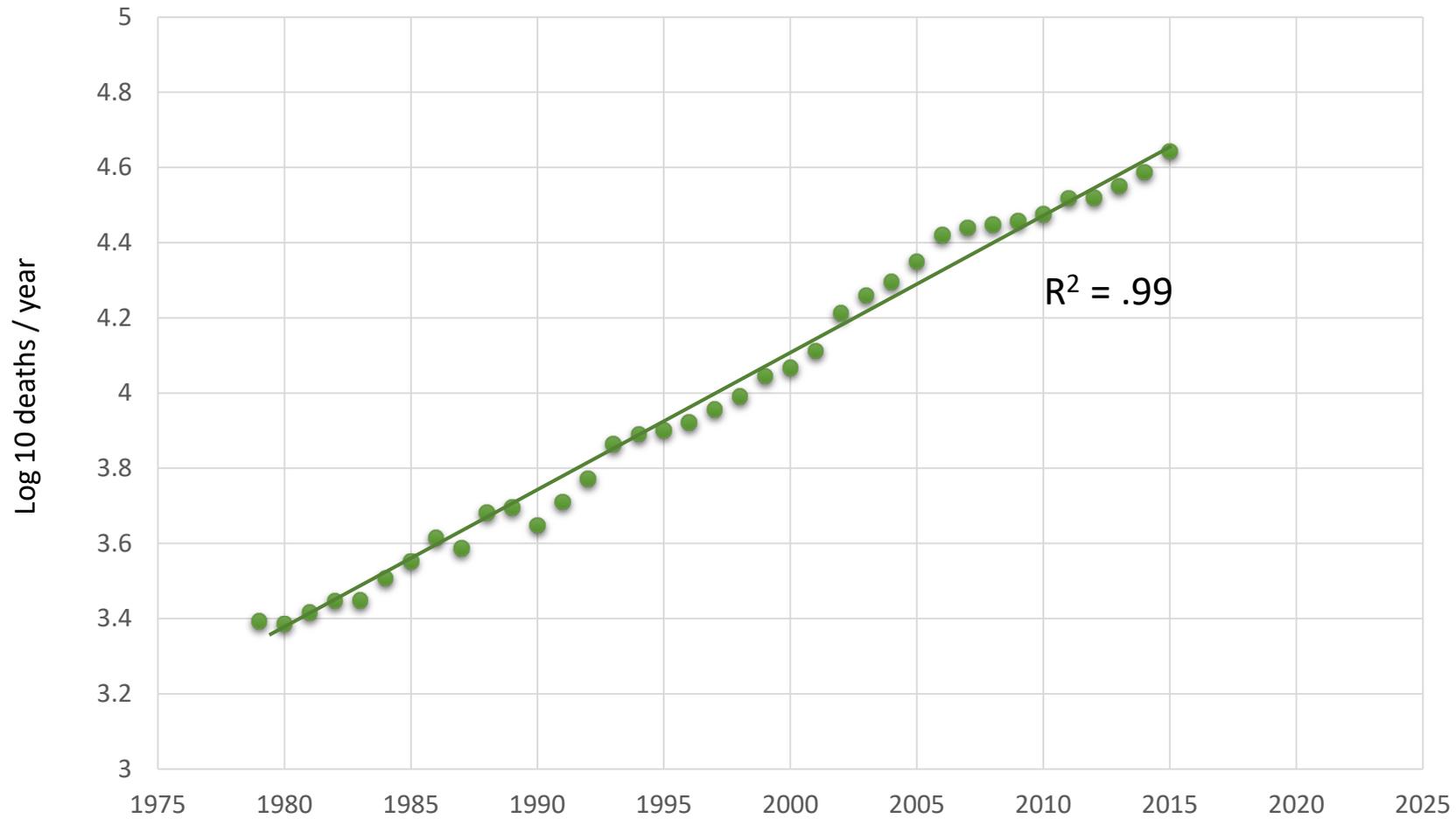


USA Deaths Due to Accidental Poisoning (Drug Overdoses)

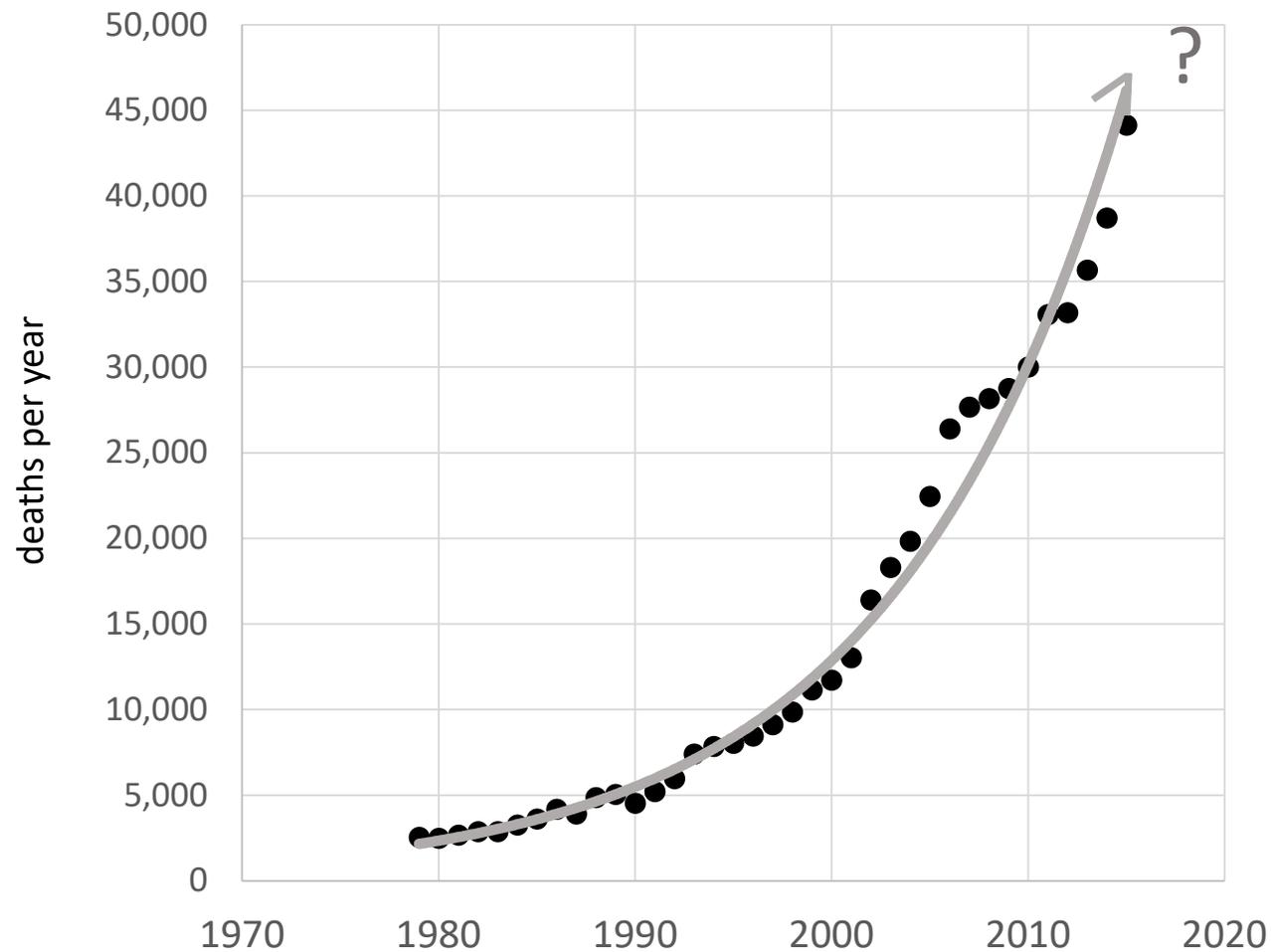


(excludes alcohol and suicides)

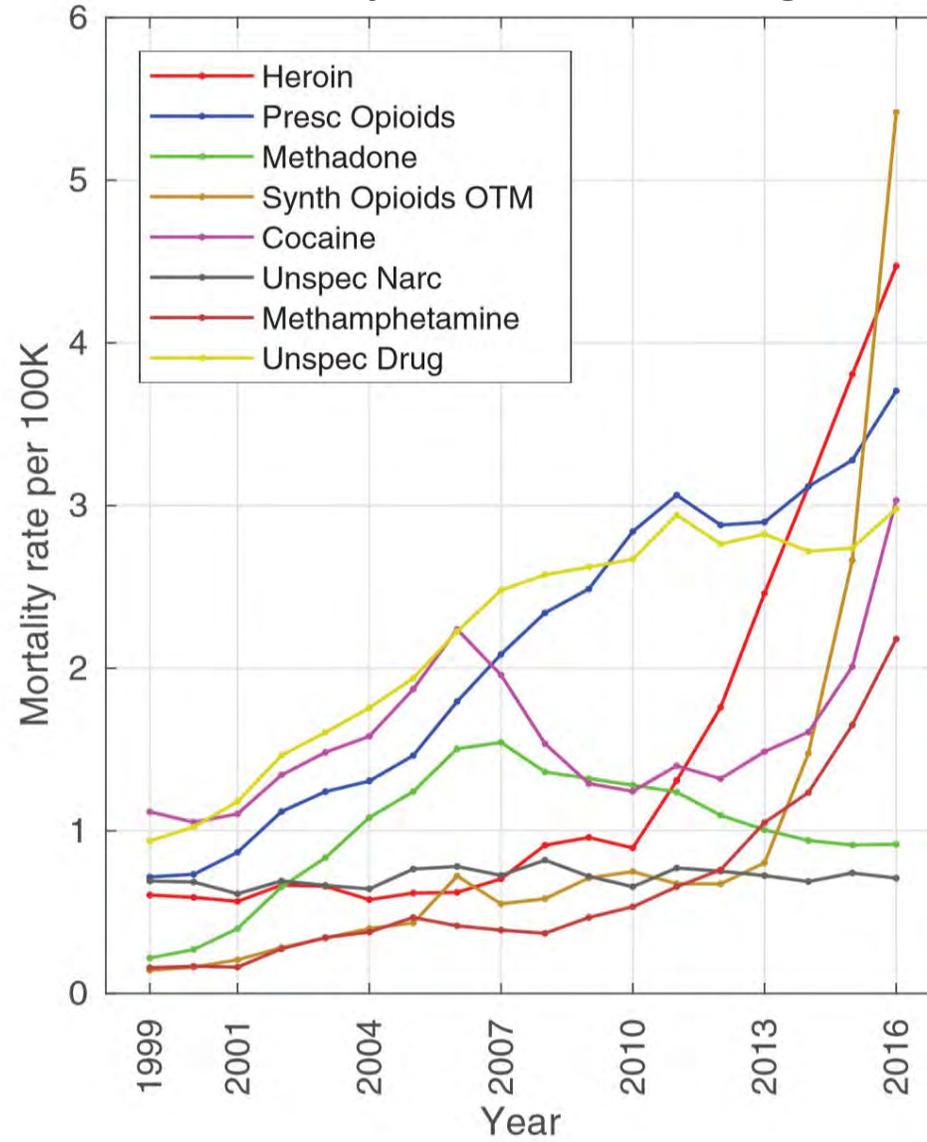
USA Deaths Due to Accidental Poisoning, Re-plotted on a logarithmic scale



Will the epidemic curve follow this remarkable exponential growth pattern into the future?



Mortality from individual drugs



Conclusions

- **The epidemic of overdose deaths in the USA has been growing, inexorably and exponentially, for four decades.**
- Paradoxically, this overall long term smooth epidemic curve is a composite of multiple heterogeneous sub-epidemics which differ according location, age, drugs used, gender, race, and urbanicity. The mechanism(s) whereby these sub-epidemics seamlessly merge into a single smooth curve is **unknown**.
- **Without effective new interventions, this overall pattern of predictable exponential growth is likely to continue into the future.**
- Data analytics and modeling are valuable tools to understand and forecast the epidemic trajectory, and to guide and evaluate policies.



Drugs of Abuse

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

- 1. Hydrocodone (e.g. Vicodin, Lorcet)**
- 2. Oxycodone (e.g. Percocet, Roxicodone)**
- 3. Amphetamines (e.g. Adderall, Dexedrine)**
- 4. Methylphenidate (e.g. Ritalin, Concerta)**
- 5. Morphine (e.g. MS Contin, Oramorph)**

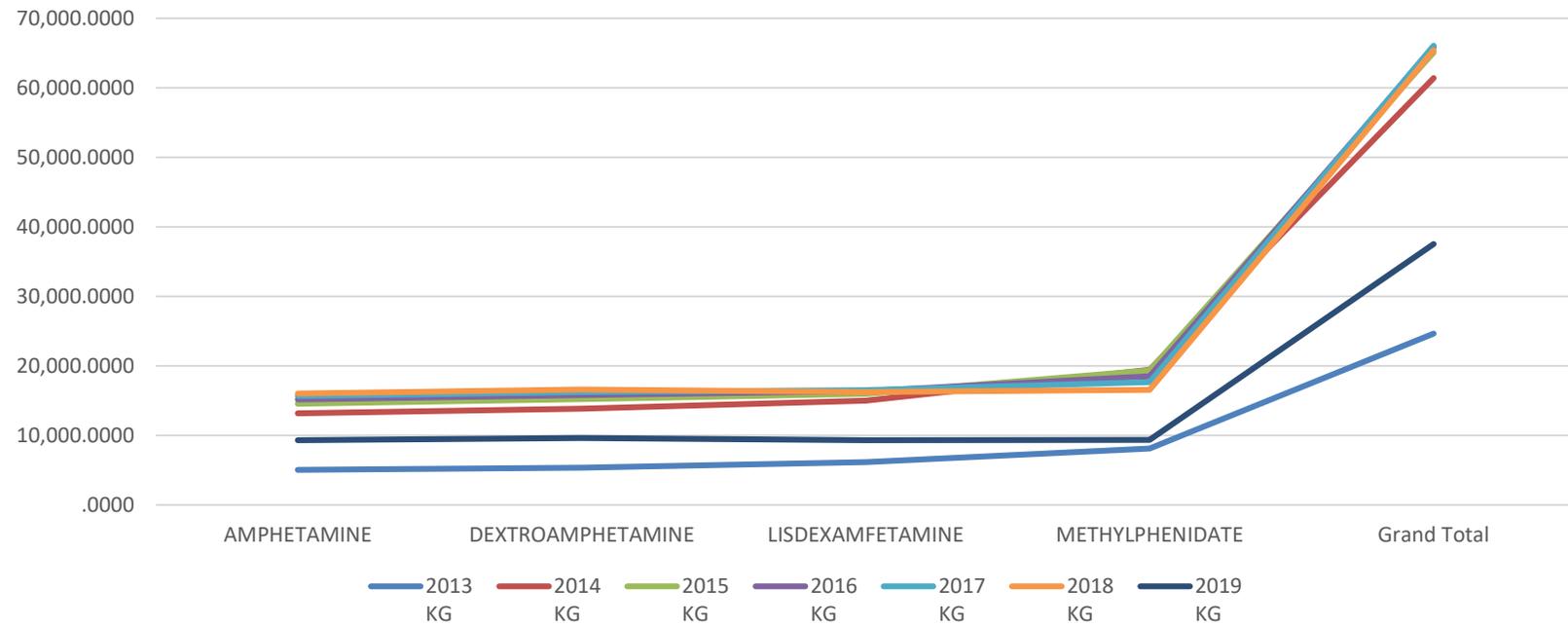
ADHD IMS Sales



Molecule	2013 KG	2014 KG	2015 KG	2016 KG	2017 KG	2018 KG	2019 KG
AMPHETAMINE	5,044.5389	13,163.5883	14,556.2456	15,161.4036	15,645.002	16,004.8904	9,278.1342
DEXTROAMPHETAMINE	5,332.6418	13,837.4792	15,219.9872	15,796.7813	16,249.5469	16,595.879	9,600.9465
LISDEXAMFETAMINE	6,156.486	14,970.0844	15,947.0114	16,381.8074	16,512.4236	16,223.3032	9,278.1766
METHYLPHENIDATE	8,095.7899	19,426.5148	19,351.6846	18,489.5126	17,644.7643	16,547.7673	9,356.9582
Grand Total	24,629.4566	61,397.6667	65,074.9288	65,829.505	66,051.7369	65,371.8399	37,514.2155



ADHD



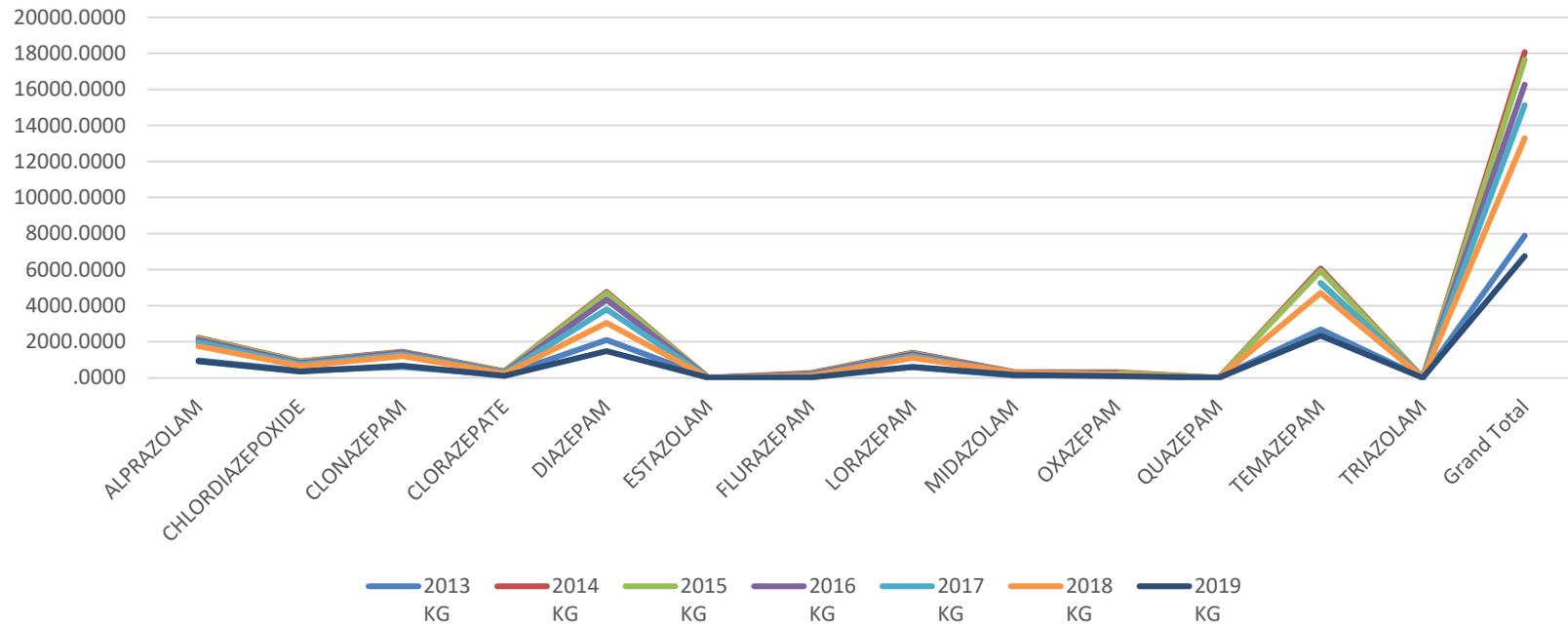
Benzodiazepines IMS Sales



Molecule	2013 KG	2014 KG	2015 KG	2016 KG	2017 KG	2018 KG	2019 KG
ALPRAZOLAM	956.4827	2,213.2177	2,180.199	2,101.0301	1,954.3955	1,754.4955	917.5703
CHLORDIAZEPOXIDE	394.4599	907.7797	897.4885	825.5925	738.8521	660.7365	344.6944
CLONAZEPAM	603.5052	1,443.6621	1,418.7313	1,402.5809	1,306.0921	1,205.0275	668.181
CLORAZEPATE	153.5066	366.5635	349.6849	294.2896	259.5623	223.4996	109.4306
DIAZEPAM	2,105.9345	4,763.9768	4,689.7231	4,331.2454	3,794.1312	3,043.9433	1,482.7604
ESTAZOLAM	5.5954	12.1385	8.5674	8.0639	6.4459	6.2306	2.5914
FLURAZEPAM	123.8088	259.1295	224.733	189.3195	130.3095	107.1255	18.6795
LORAZEPAM	586.3562	1,400.8536	1,353.2474	1,299.7456	1,209.6726	1,105.7198	604.5104
MIDAZOLAM	123.8649	306.0847	302.5392	287.4669	275.4734	295.2692	163.8825
OXAZEPAM	156.1615	317.93	282.4245	248.3385	195.2395	173.2965	88.2395
QUAZEPAM	0.0555	0.1029	0.1785			1.308	1.7355
TEMAZEPAM	2,673.2823	6,070.6838	5,938.0242	5,260.2554	5,253.0643	4,700.996	2,337.641
TRIAZOLAM	3.7736	7.7671	7.2304	6.6426	5.9584	5.0783	2.6199
Grand Total	7,886.7872	18,069.8899	17,652.7714	16,254.5709	15,129.1968	13,282.7264	6,742.5364



Benzodiazepines





Where Does the United States Rank In Consumption?

Drug Name	United States (Pop. 320 Mil.)		China (Pop. 1.37 Billion)		World (7.3 Bil)
	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[®], Lortab[®], Lorcet[®]**





Hydrocodone

- **October 6, 2014 moved to SCHEDULE II**
- **Street prices: \$2 to \$10 per tablet depending on strength & region**





The Trinity Cocktail



Opioid



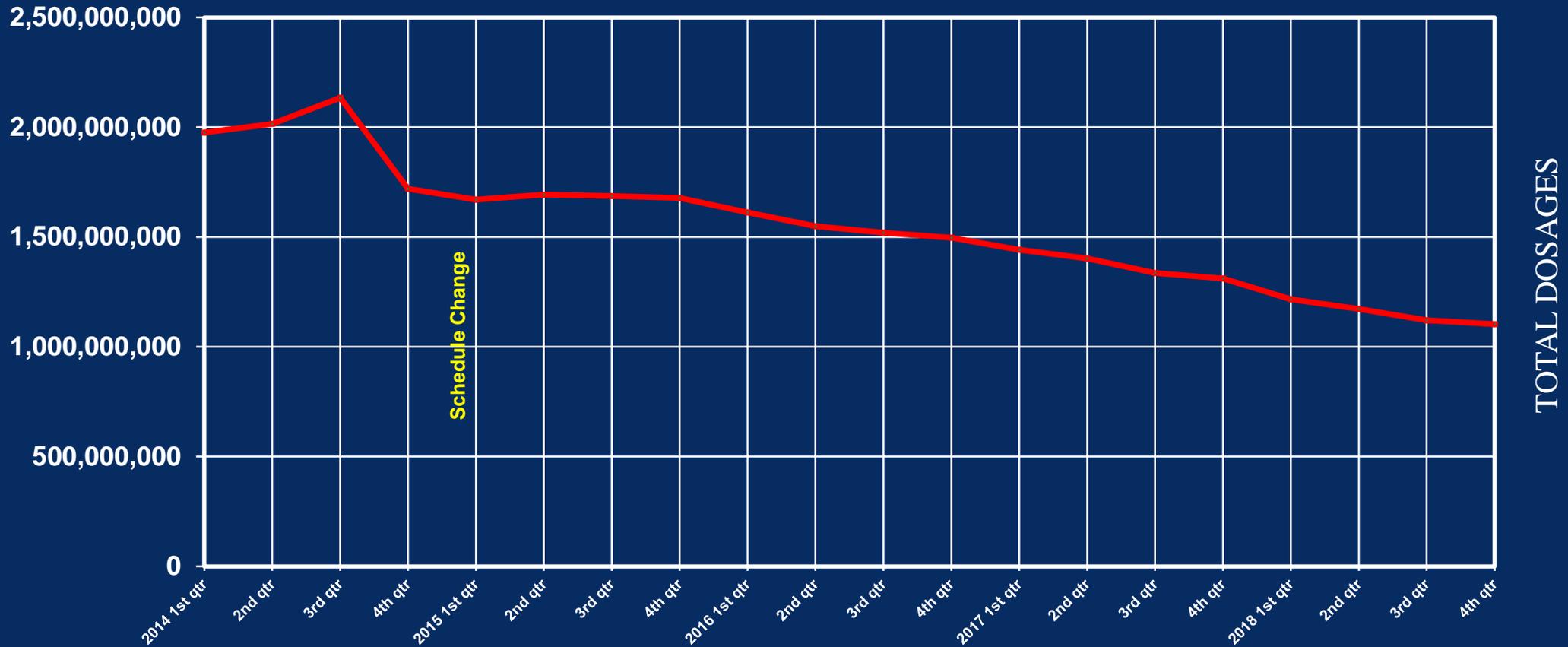
Muscle Relaxant



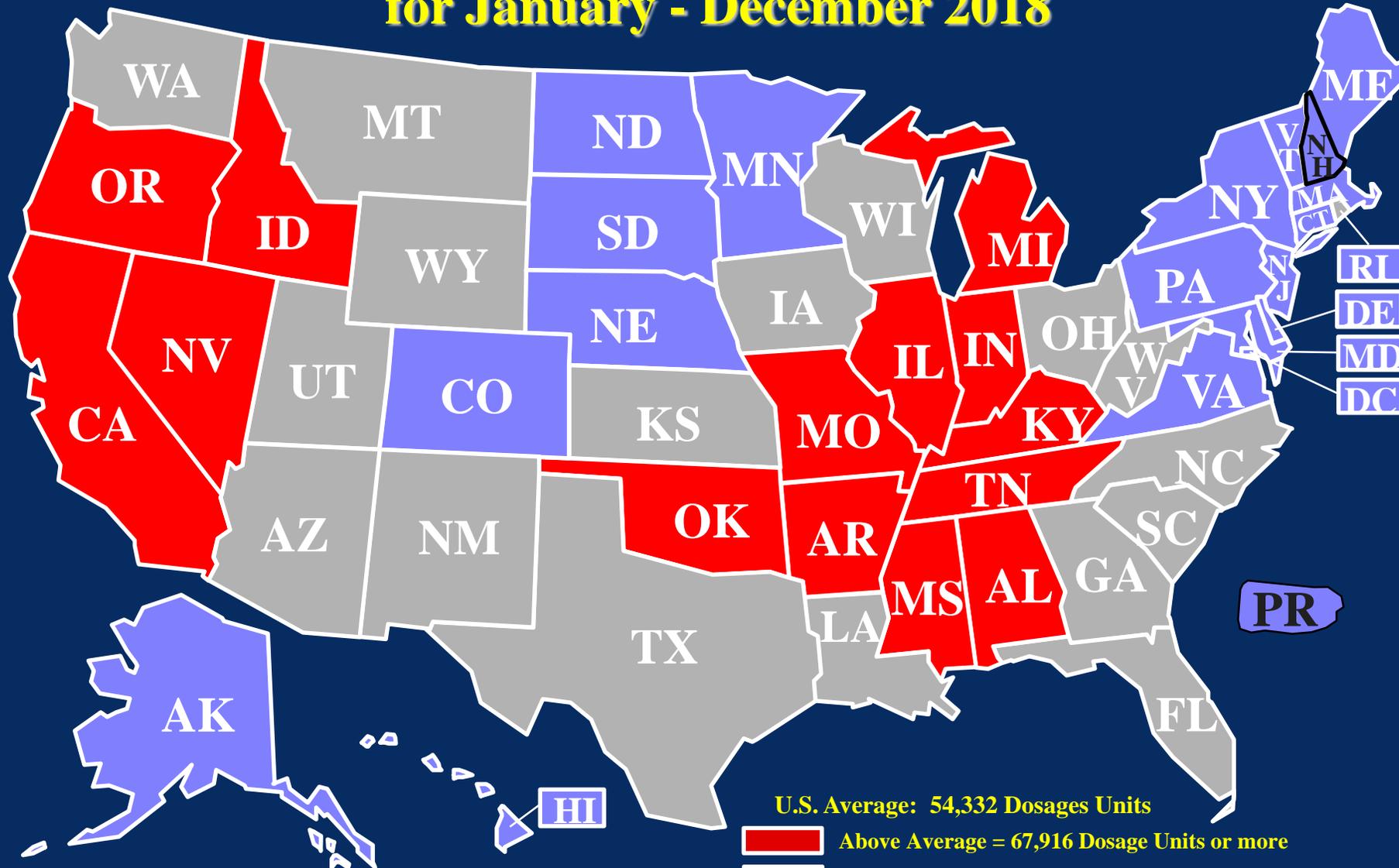
Benzodiazepine



Hydrocodone Distribution 2014 - 2018 U.S. Totals



Purchases of Hydrocodone for January - December 2018



U.S. Average: 54,332 Dosages Units

- Above Average = 67,916 Dosage Units or more
- Average = 40,749 – 67,915 Dosage Units
- Below Average = 40,748 Dosage Units or less
- Zero Dosage Units



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	KY	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	OK	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	PA	876,791	48	CT	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	MT	1,664,945	28	FL	1,192,959	39	CO	830,638	50	NJ	253,277
7	MI	2,370,022	18	TX	1,585,340	29	OH	1,168,451	40	HI	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	CA	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	MO	1,994,749	22	WA	1,392,248	33	WI	1,067,834	44	VT	545,467	55	AS	0

* *Business Activity – Retail Pharmacies*

Source: Drug Enforcement Administration, Diversion Control Division,
Pharmaceutical Investigations Section, Targeting and Analysis Unit
Date Prepared: 1/10/2020



Hydrocodone Distribution Practitioner's Office



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	HI	25,091	12	NV	4,893	23	IA	3,488	34	LA	2,482	45	KS	1,635
2	GA	8,376	13	FL	4,766	24	NJ	3,100	35	SD	2,456	46	AR	1,594
3	MO	7,351	14	MT	4,760	25	WI	3,053	36	NY	2,134	47	SC	1,028
4	WY	6,988	15	WA	4,593	26	MN	2,990	37	OH	2,082	48	VT	991
5	CA	6,775	16	ID	4,333	27	UT	2,951	38	MA	2,053	49	DC	897
6	ND	6,551	17	AL	4,114	28	CT	2,667	39	GU	2,018	50	NM	883
7	MD	6,484	18	AZ	4,089	29	NE	2,602	40	TX	2,015	51	MS	571
8	IL	6,041	19	TN	3,925	30	MI	2,576	41	DE	1,993	52	NH	135
9	AK	5,300	20	VA	3,815	31	RI	2,537	42	ME	1,882	53	AS	0
10	CO	5,219	21	OK	3,670	32	IN	2,528	43	WV	1,867	54	PR	0
11	OR	5,173	22	KY	3,511	33	PA	2,508	44	NC	1,718	55	VI	0

* *Business Activity – Retail Practitioners*



OxyContin®

The
1990s





OxyContin®

- **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.**



OxyContin®

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

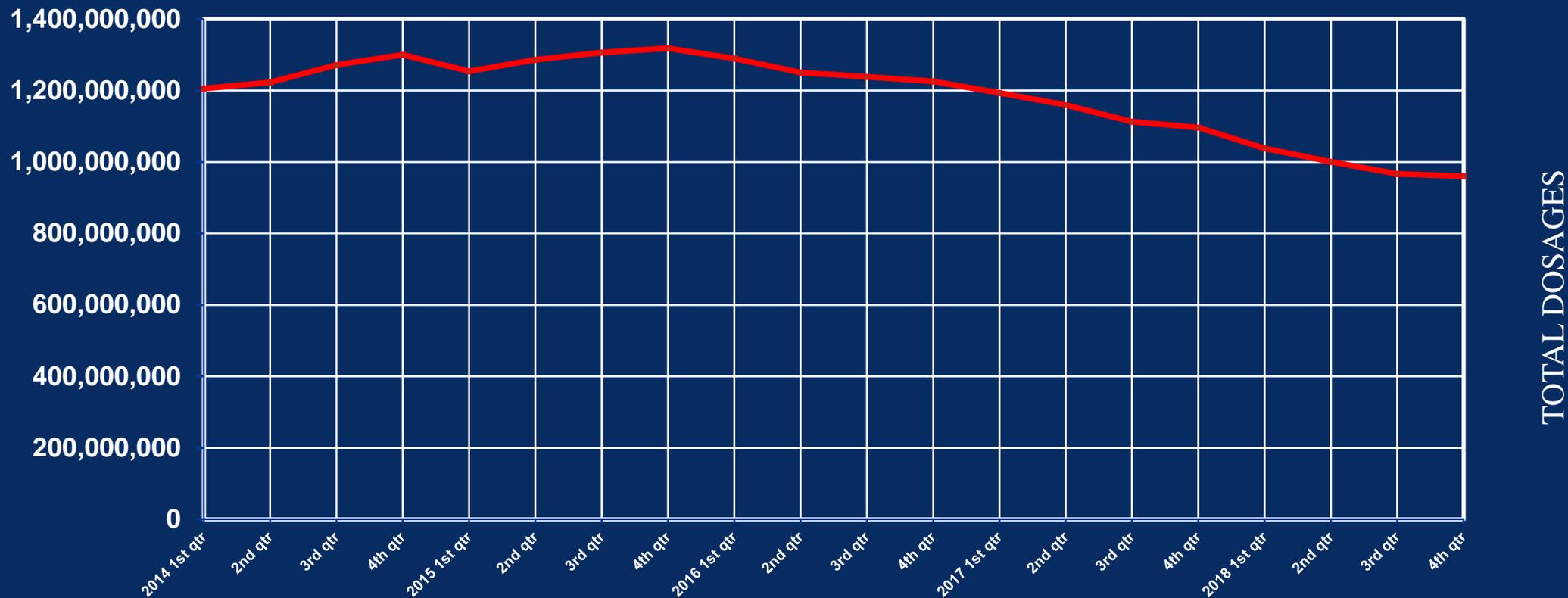


OxyContin®

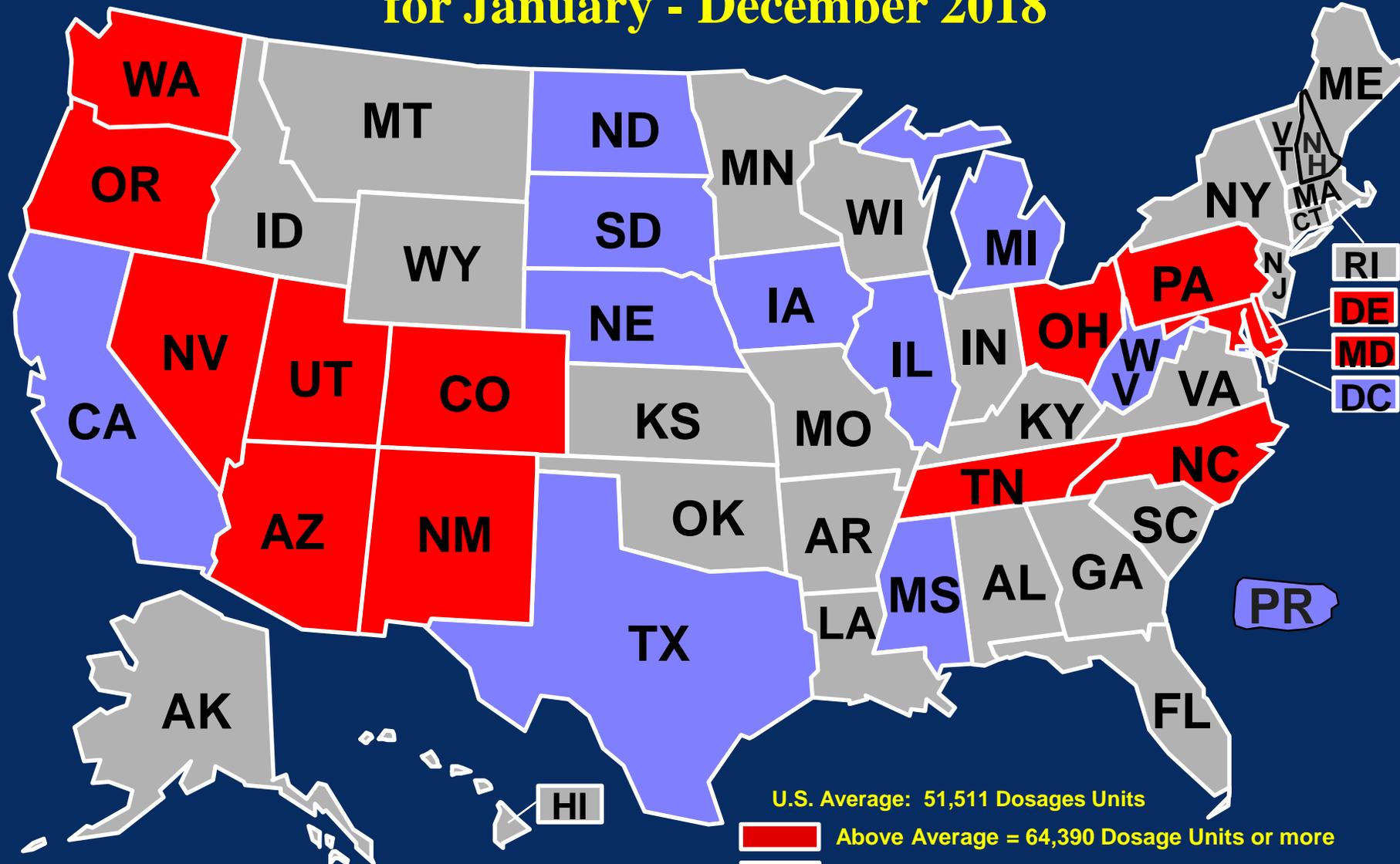
- **Street price: Approx. \$80 per 80mg tablet**
- **90 tabs prescribed a month =**
- **\$7200 a month income.**
- **\$86,400 year.**



Oxycodone Distribution 2014 - 2018 U.S. Totals



Purchases of Oxycodone for January - December 2018



U.S. Average: 51,511 Dosages Units

- Above Average = 64,390 Dosage Units or more
- Average = 38,633 – 64,389 Dosage Units
- Below Average = 38,632 Dosage Units or less
- Zero Dosage Units

Source: ARCOS
Date Prepared: 1/10/2020



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	OK	1,612,469	23	ME	1,351,121	34	VA	1,154,898	45	MI	745,202
2	DE	2,184,853	13	FL	1,573,010	24	CO	1,340,700	35	IN	1,145,469	46	ND	719,122
3	AZ	1,981,541	14	OH	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	CT	1,331,781	37	RI	1,109,030	48	CA	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	MO	1,421,093	29	MA	1,263,347	40	MS	1,070,969	51	TX	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	HI	914,721	53	VI	194,309
10	PA	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*



Oxycodone Distribution Practitioner's Office



State Ranking

Average Per 100K Population*

Oxycodone

January – December 2018

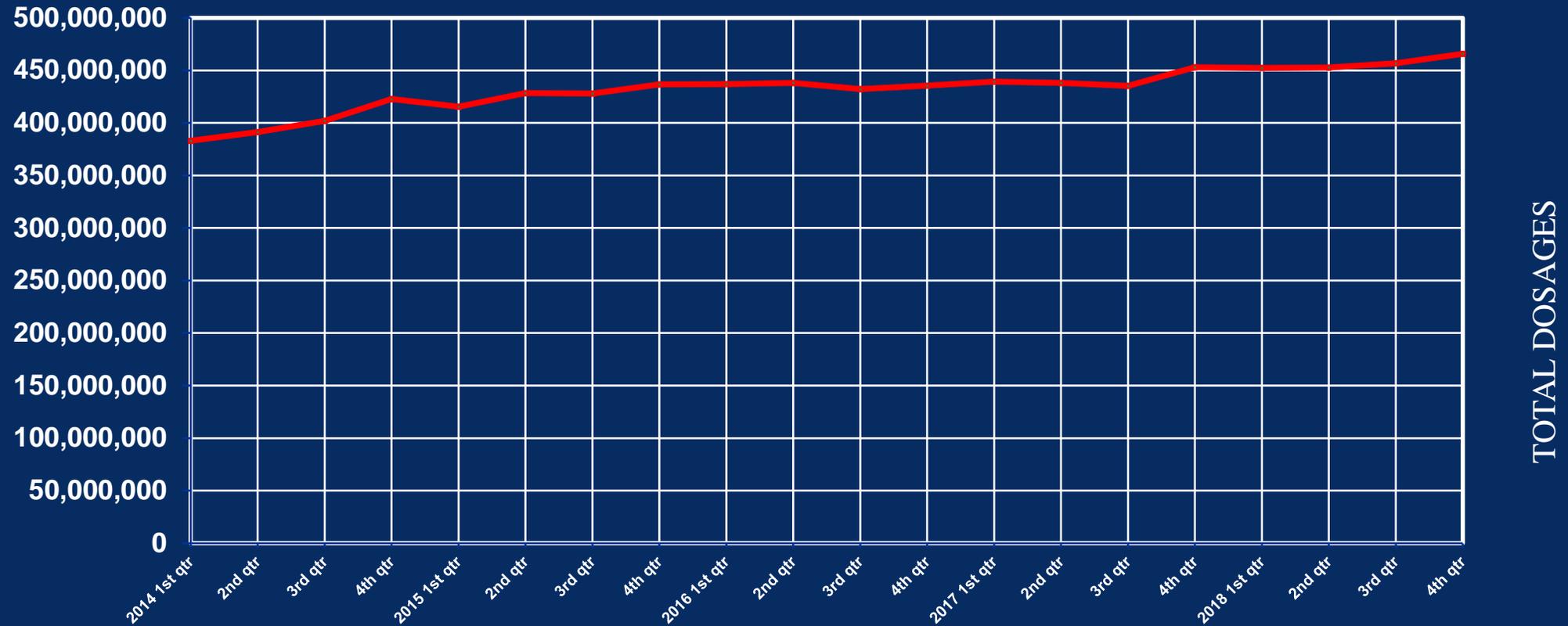
RANK	STATE	TOTAL	RANK	STATE	TOTAL	RANK	STATE	TOTAL	RANK	STATE	TOTAL	RANK	STATE	TOTAL
1	HI	15,444	12	OR	916	23	VA	412	34	IL	170	45	KY	78
2	KS	10,236	13	OK	906	24	MO	355	35	RI	154	46	SD	74
3	MD	4,916	14	NV	879	25	ME	346	36	NM	151	47	NC	71
4	GA	2,808	15	AZ	849	26	NJ	342	37	OH	143	48	DE	56
5	CT	2,711	16	ID	825	27	CA	296	38	MT	142	49	TX	48
6	CO	2,623	17	AK	703	28	PA	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	VT	0
11	MN	1,036	22	DC	432	33	WA	182	44	LA	86	55	VI	0

* *Business Activity – Retail Practitioners*

Source: Drug Enforcement Administration, Diversion Control Division, Pharmaceutical Investigations Section, Targeting and Analysis Unit
Date Prepared: 1/10/2020

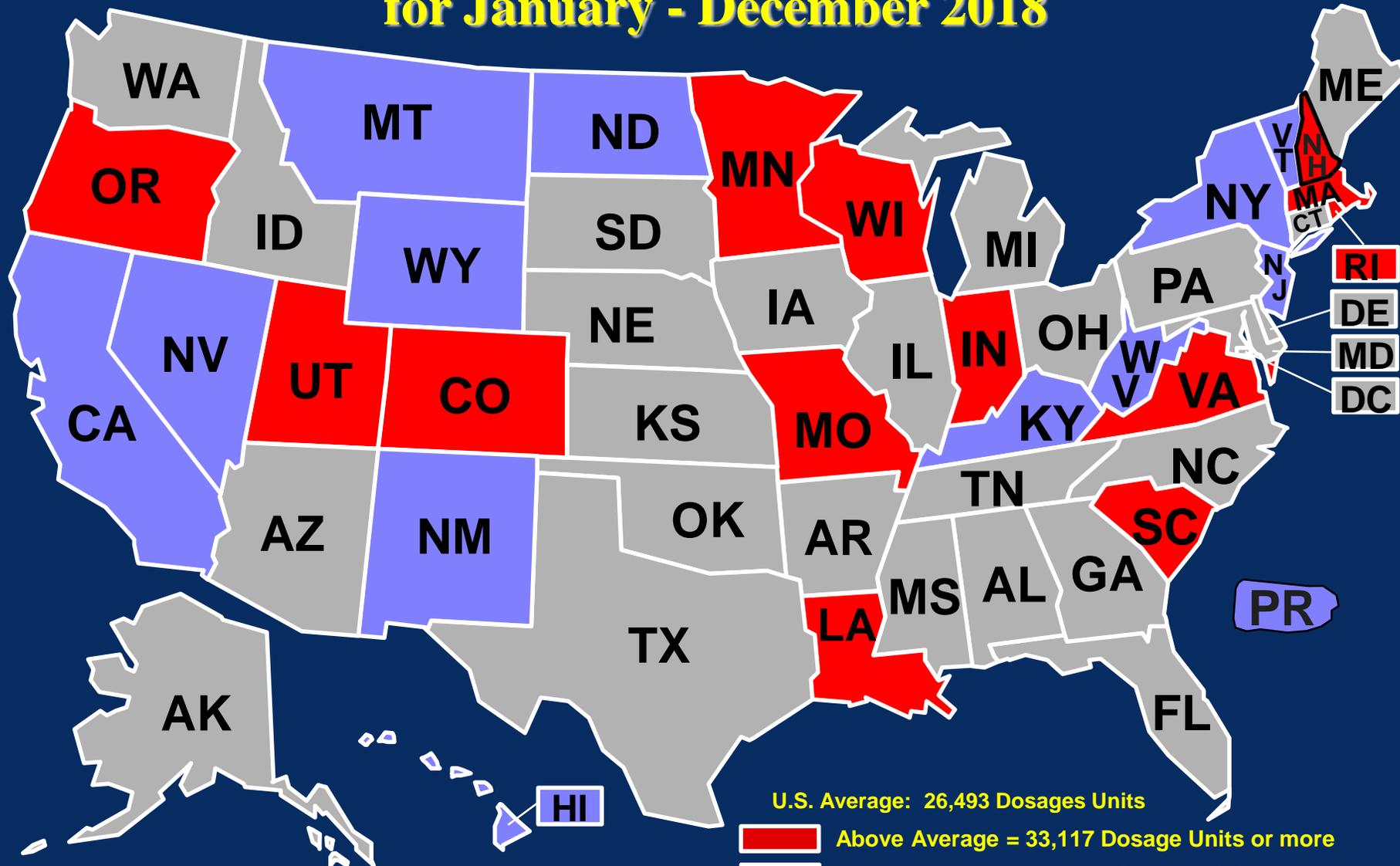


Amphetamines Distribution 2014 - 2018 U.S. Totals



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

Purchases of Amphetamines for January - December 2018



U.S. Average: 26,493 Dosage Units

- Above Average = 33,117 Dosage Units or more
- Average = 19,870 – 33,116 Dosage Units
- Below Average = 19,869 Dosage Units or less
- Zero Dosage Units



Amphetamines Distribution

Retail Pharmacies



State Ranking Average Per 100K Population* Amphetamines January – December 2018

RANK	STATE	TOTAL	RANK	STATE	TOTAL	RANK	STATE	TOTAL	RANK	STATE	TOTAL	RANK	STATE	TOTAL
1	RI	1,191,940	12	NC	719,758	23	SD	612,973	34	TX	530,221	45	NJ	418,290
2	LA	1,079,340	13	MN	716,808	24	WA	610,713	35	CO	520,885	46	WY	394,904
3	UT	1,016,629	14	WI	705,671	25	OH	599,556	36	IL	516,243	47	AK	351,557
4	NH	988,010	15	DE	699,196	26	ID	592,077	37	FL	516,009	48	NV	325,983
5	SC	931,252	16	KS	691,400	27	IA	578,211	38	NE	495,366	49	CA	291,193
6	MA	907,900	17	IN	661,094	28	PA	572,313	39	AZ	486,822	50	NM	246,956
7	AL	878,939	18	TN	660,160	29	MD	565,747	40	MT	479,641	51	HI	234,139
8	MO	784,789	19	GA	652,631	30	VT	564,045	41	OK	469,517	52	VI	99,140
9	MI	776,803	20	OR	627,744	31	AR	561,727	42	NY	461,670	53	PR	98,178
10	DC	756,591	21	MS	621,665	32	KY	543,709	43	ND	434,543	54	GU	55,148
11	VA	740,182	22	ME	614,970	33	CT	540,753	44	WV	425,873	55	AS	0

* *Business Activity – Retail Pharmacies*

Source: Drug Enforcement Administration, Diversion Control Division,
Pharmaceutical Investigations Section, Targeting and Analysis Unit
Date Prepared: 1/10/2020



Amphetamines Distribution Practitioner's Office



State Ranking

Average Per 100K Population*

Amphetamines

January – December 2018

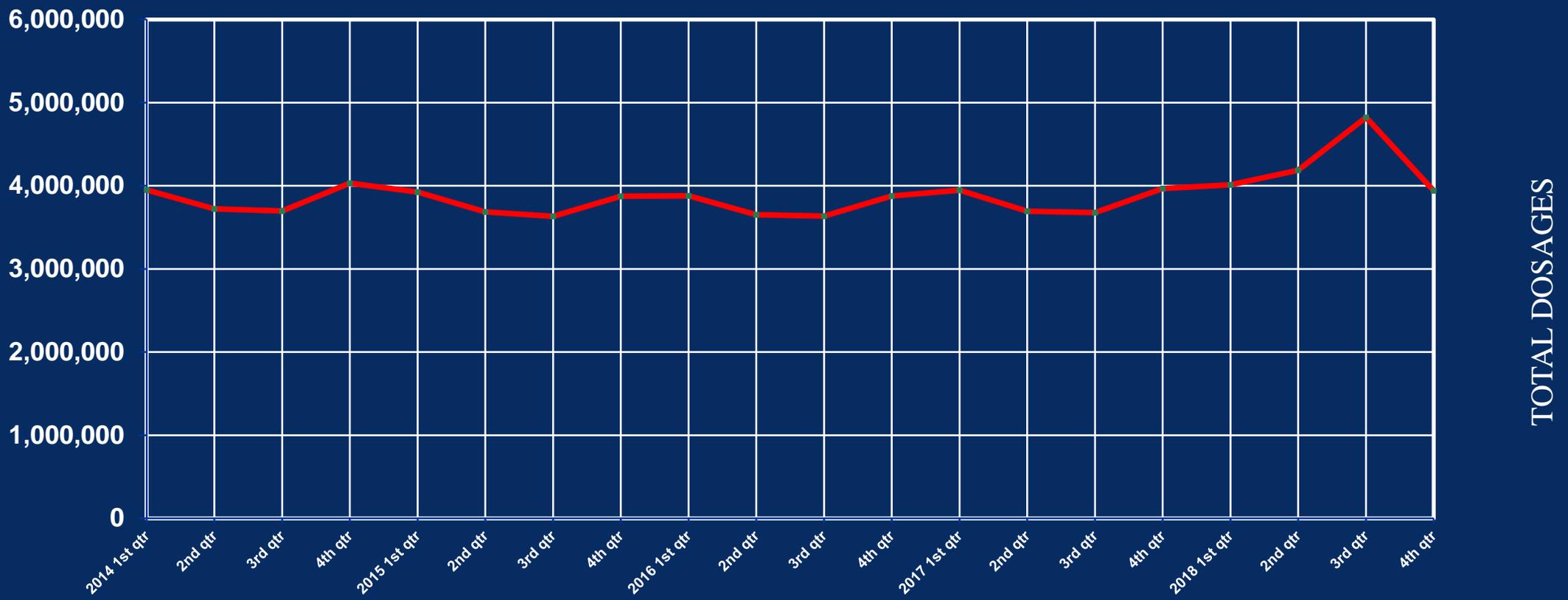
RANK	STATE	TOTAL												
1	TN	1,312	12	MD	18	23	UT	7	34	GU	0	45	NM	0
2	CA	181	13	ID	16	24	OK	7	35	HI	0	46	ND	0
3	VA	103	14	MN	15	25	NC	3	36	IA	0	47	OR	0
4	SC	94	15	AL	12	26	CO	2	37	LA	0	48	PR	0
5	FL	85	16	KY	12	27	IN	2	38	ME	0	49	RI	0
6	DC	66	17	WA	11	28	NY	1	39	MA	0	50	SD	0
7	GA	49	18	IL	10	29	AK	0	40	MS	0	51	VT	0
8	OH	43	19	TX	9	30	AS	0	41	MT	0	52	VI	0
9	KS	34	20	PA	9	31	AZ	0	42	NV	0	53	WV	0
10	AR	29	21	MO	8	32	CT	0	43	NH	0	54	WI	0
11	NE	29	22	MI	8	33	DE	0	44	NJ	0	55	WY	0

* *Business Activity – Retail Practitioners*

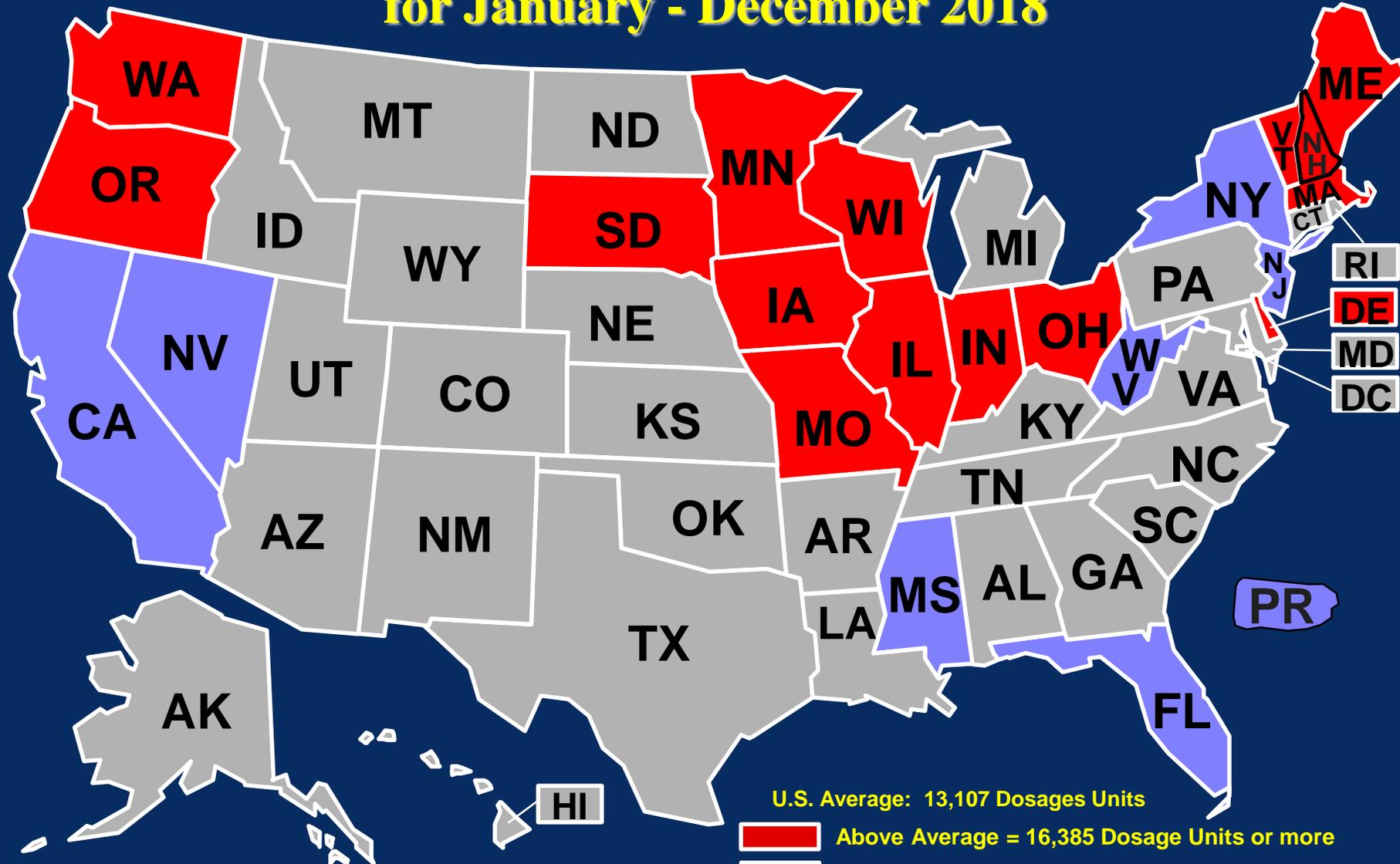
Source: Drug Enforcement Administration, Diversion Control Division,
 Pharmaceutical Investigations Section, Targeting and Analysis Unit
 Date Prepared: 1/10/2020



Methylphenidate Distribution 2014-2018 U.S. Totals



Purchases of Methylphenidate for January - December 2018



U.S. Average: 13,107 Dosages Units

- Above Average = 16,385 Dosage Units or more
- Average = 9,830 – 16,384 Dosage Units
- Below Average = 9,829 Dosage Units or less
- Zero Dosage Units



Methylphenidate Distribution

Retail Pharmacies



State Ranking

Average Per 100K Population*

Methylphenidate

January – December 2018

RANK	STATE	TOTAL												
1	VT	631,987	12	WI	370,580	23	MT	334,250	34	CT	306,889	45	NJ	202,963
2	ME	595,452	13	RI	369,390	24	PA	334,030	35	IL	293,133	46	FL	200,623
3	NH	513,415	14	NC	354,920	25	KS	330,245	36	MS	265,711	47	AK	192,701
4	IA	512,097	15	SC	353,820	26	WA	329,525	37	DC	264,241	48	NM	167,152
5	SD	462,150	16	OR	353,491	27	KY	324,285	38	OK	258,510	49	HI	145,973
6	MA	428,531	17	MI	349,432	28	AL	323,278	39	WY	256,903	50	CA	143,192
7	MO	420,737	18	WV	345,126	29	AR	320,587	40	TN	256,659	51	PR	119,902
8	ND	409,617	19	ID	341,584	30	UT	320,000	41	TX	253,988	52	NV	106,171
9	DE	393,215	20	OH	339,801	31	LA	319,097	42	AZ	253,266	53	VI	28,955
10	NE	378,170	21	IN	338,624	32	GA	317,033	43	NY	230,533	54	GU	25,439
11	MN	373,777	22	MD	335,895	33	VA	309,486	44	CO	214,766	55	AS	0

* *Business Activity – Retail Pharmacies*



Methylphenidate Distribution Practitioner's Office



State Ranking

Average Per 100K Population*

Methylphenidate

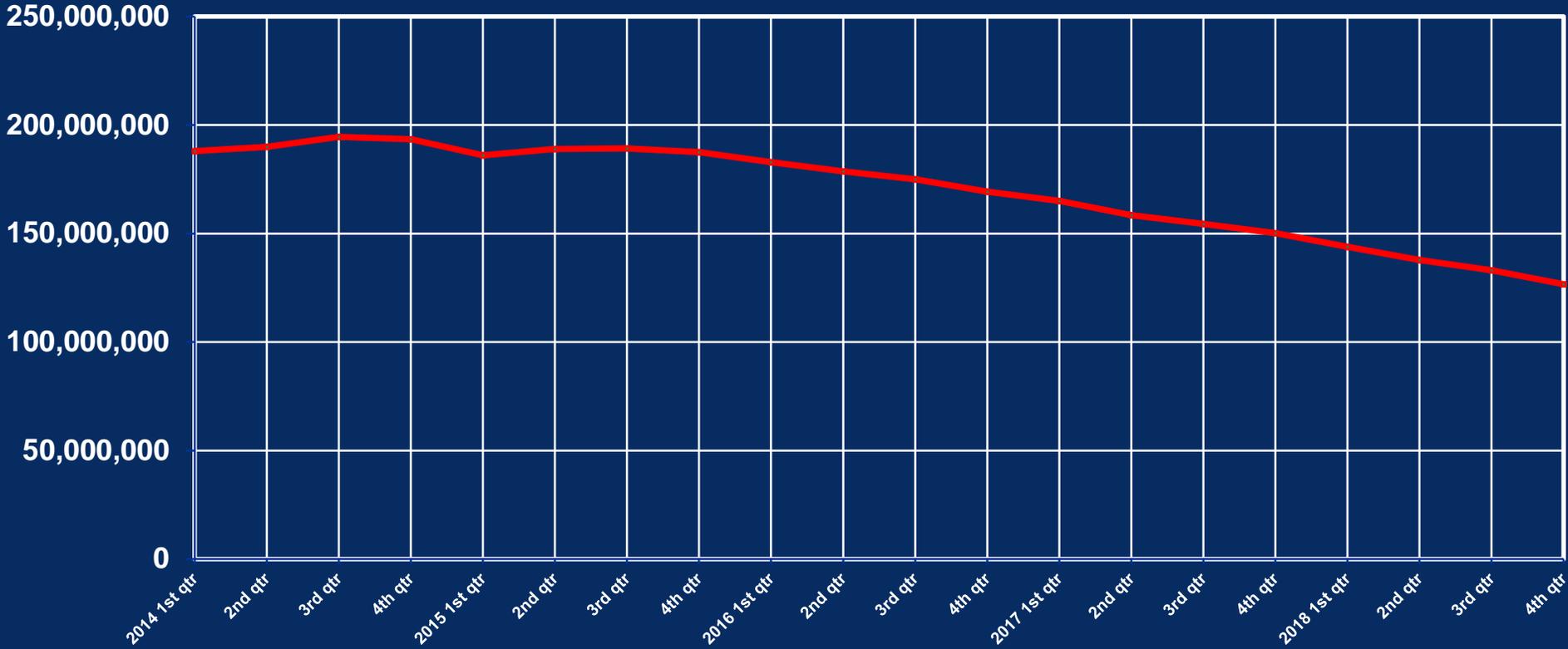
January – December 2018

RANK	STATE	TOTAL												
1	NV	495	12	VA	30	23	AK	0	34	LA	0	45	NM	0
2	TN	356	13	NC	14	24	AS	0	35	ME	0	46	ND	0
3	FL	228	14	AL	13	25	AZ	0	36	MD	0	47	OK	0
4	OR	209	15	PA	13	26	CT	0	37	MA	0	48	PR	0
5	AR	199	16	CA	13	27	DE	0	38	MI	0	49	RI	0
6	DC	133	17	WI	9	28	GU	0	39	MS	0	50	SC	0
7	KS	130	18	NY	8	29	HI	0	40	MO	0	51	SD	0
8	OH	102	19	UT	4	30	ID	0	41	MT	0	52	VT	0
9	TX	93	20	MN	4	31	IN	0	42	NE	0	53	VI	0
10	CO	74	21	WA	2	32	IA	0	43	NH	0	54	WV	0
11	IL	37	22	GA	1	33	KY	0	44	NJ	0	55	WY	0

* *Business Activity – Retail Practitioners*



Morphine Distribution 2014 - 2018 U.S. Totals



TOTAL DOSAGES

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



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	MO	174,440	34	MS	136,518	45	MN	110,865
2	AZ	309,248	13	AR	197,608	24	CO	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	TX	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	OH	120,709	52	GU	42,930
9	UT	231,859	20	KS	179,011	31	GA	144,684	42	CT	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, Diversion Control Division,
Pharmaceutical Investigations Section, Targeting and Analysis Unit
Date Prepared: 1/10/2020



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	NE	11	34	GU	0	45	NC	0
2	OK	820	13	UT	51	24	TX	7	35	IN	0	46	ND	0
3	MD	802	14	MI	42	25	NJ	6	36	IA	0	47	OH	0
4	GA	270	15	AR	38	26	MO	3	37	KS	0	48	PR	0
5	CT	260	16	MT	30	27	NM	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	ME	0	51	TN	0
8	CO	109	19	WA	19	30	IL	1	41	MA	0	52	VT	0
9	WI	85	20	FL	16	31	AK	0	42	MN	0	53	VI	0
10	NY	57	21	OR	13	32	AS	0	43	MS	0	54	WV	0
11	NV	56	22	PA	11	33	DC	0	44	NH	0	55	WY	0

* *Business Activity – Retail Practitioners*

Source: Drug Enforcement Administration, Diversion Control Division,
Pharmaceutical Investigations Section, Targeting and Analysis Unit
Date Prepared: 11/25/2019



Drug Trends



Heroin and Fentanyl



Heroin

- **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.**
- **Heroin use has increased in the last 5 years.**



Fentanyl

- **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).**
- **Carfentanil is stolen or diverted from legitimate channels.**



Fentanyl





Fentanyl Dangers to Practitioners

- Be cautious when inventorying personal items in ED or the hospital.
- Be cautious when touching patients.
- Be cautious when going through a patient's personal items.
- Don't **ever** take back a patient's medications.



From Pills to Heroin





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

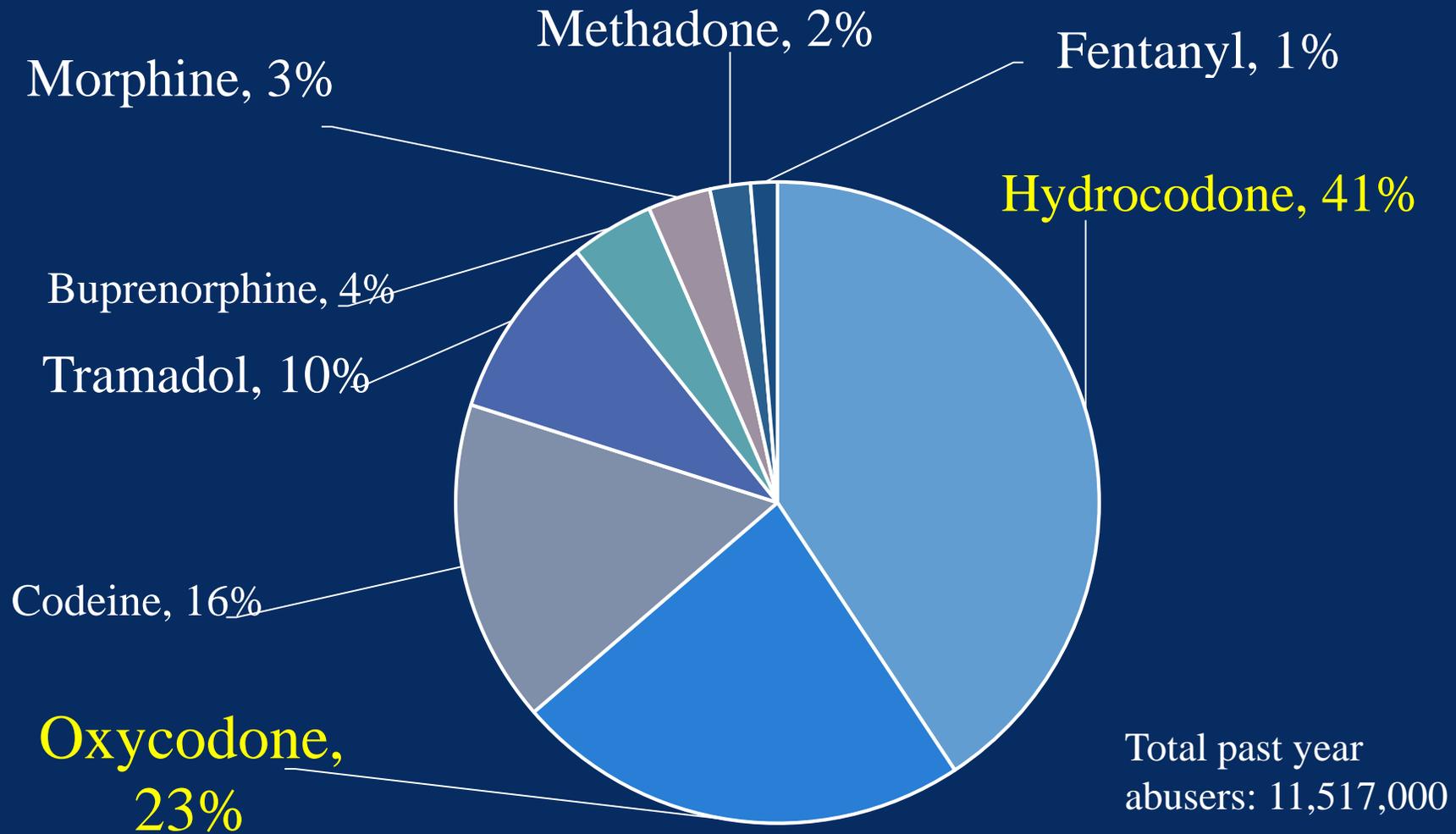
Is Driven By-

**Indiscriminate Prescribing And
Criminal Activity**



Prescription Pain Reliever Misuse

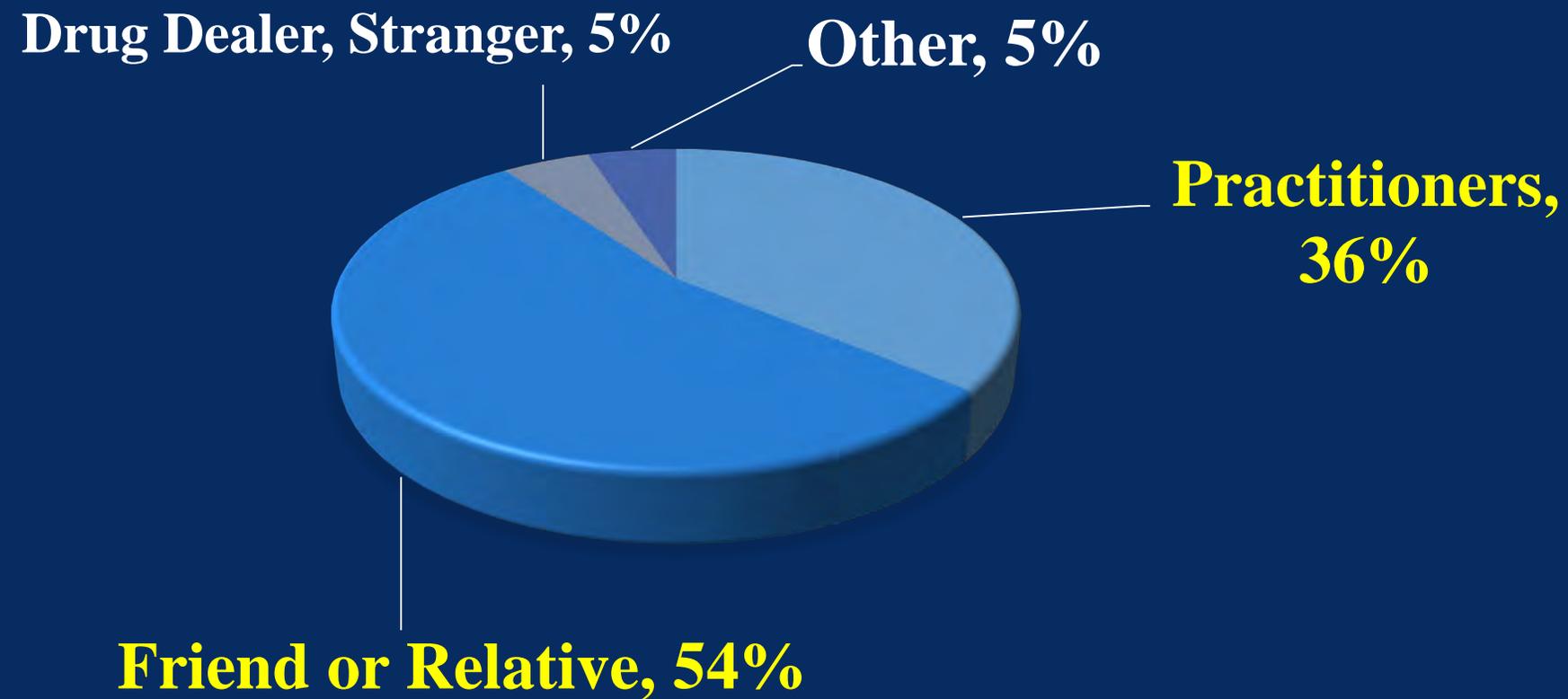
(Age 12 and Older)(2016)



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



Where Do They Come From?



Source: Department of Health and Human Services



Many Patients Share Prescribed Controlled Substances

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: <https://www.pennmedicine.org/news/news-releases/2016/september/100-million-prescription-opioid>
https://www.nlm.nih.gov/medlineplus/news/fullstory_159336.html



Many Patients Share Prescribed Controlled Substances

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**



Many Patients Share Prescribed Controlled Substances

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.

Source: <https://www.pennmedicine.org/news/news-releases/2016/september/100-million-prescription-opioid>
https://www.nlm.nih.gov/medlineplus/news/fullstory_159336.html



Many Patients Share Prescribed Controlled Substances

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.

Source: <https://www.pennmedicine.org/news/news-releases/2016/september/100-million-prescription-opioid>
https://www.nlm.nih.gov/medlineplus/news/fullstory_159336.html



Violence





Violence Associated With Opiates

Communities undergo:

- **Drug related crimes**
 - a. **Robberies**
 - b. **Burglaries/break ins**
 - c. **Drug thefts**

- **Abuse and neglect of children**

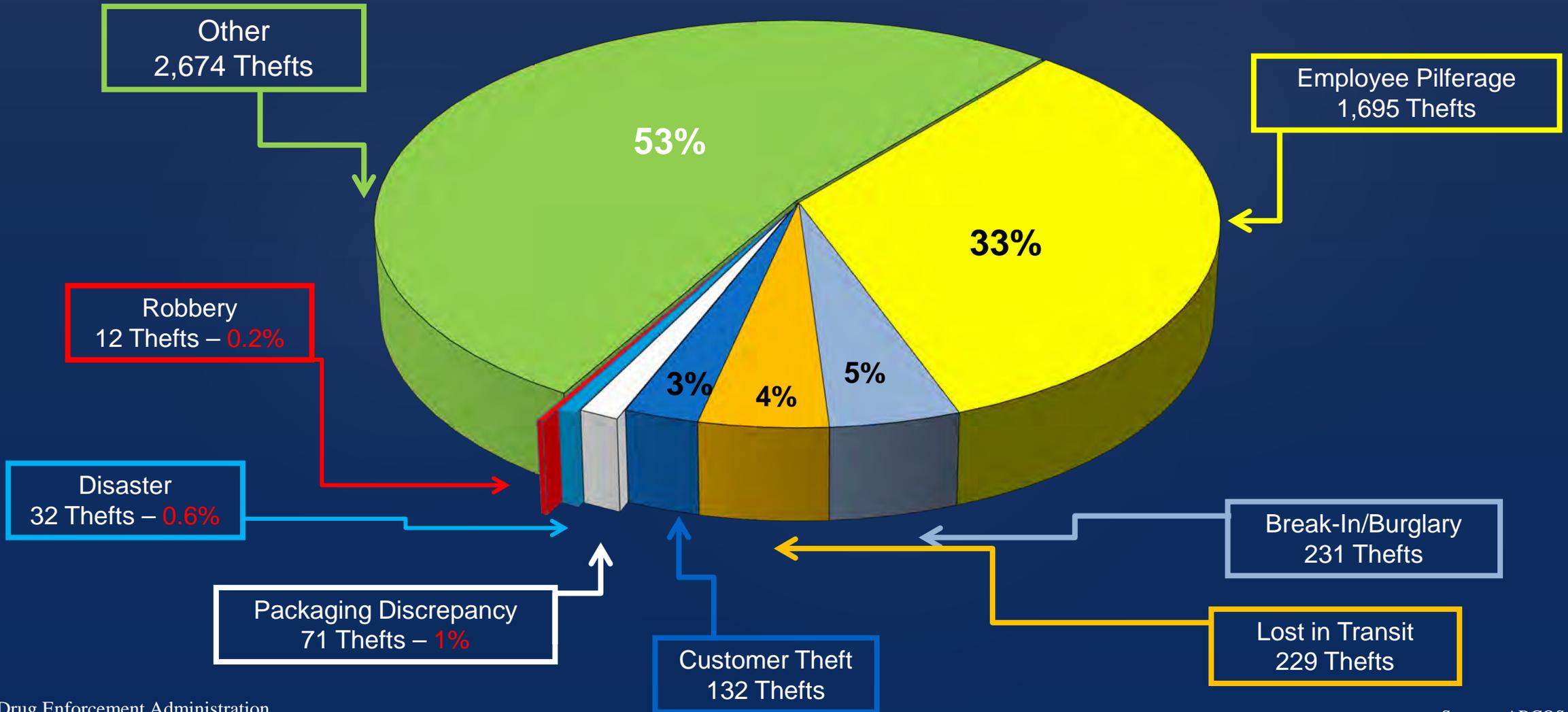
- **Domestic violence in the home**

- **Increase of arrests**



Nationwide Practitioners Thefts

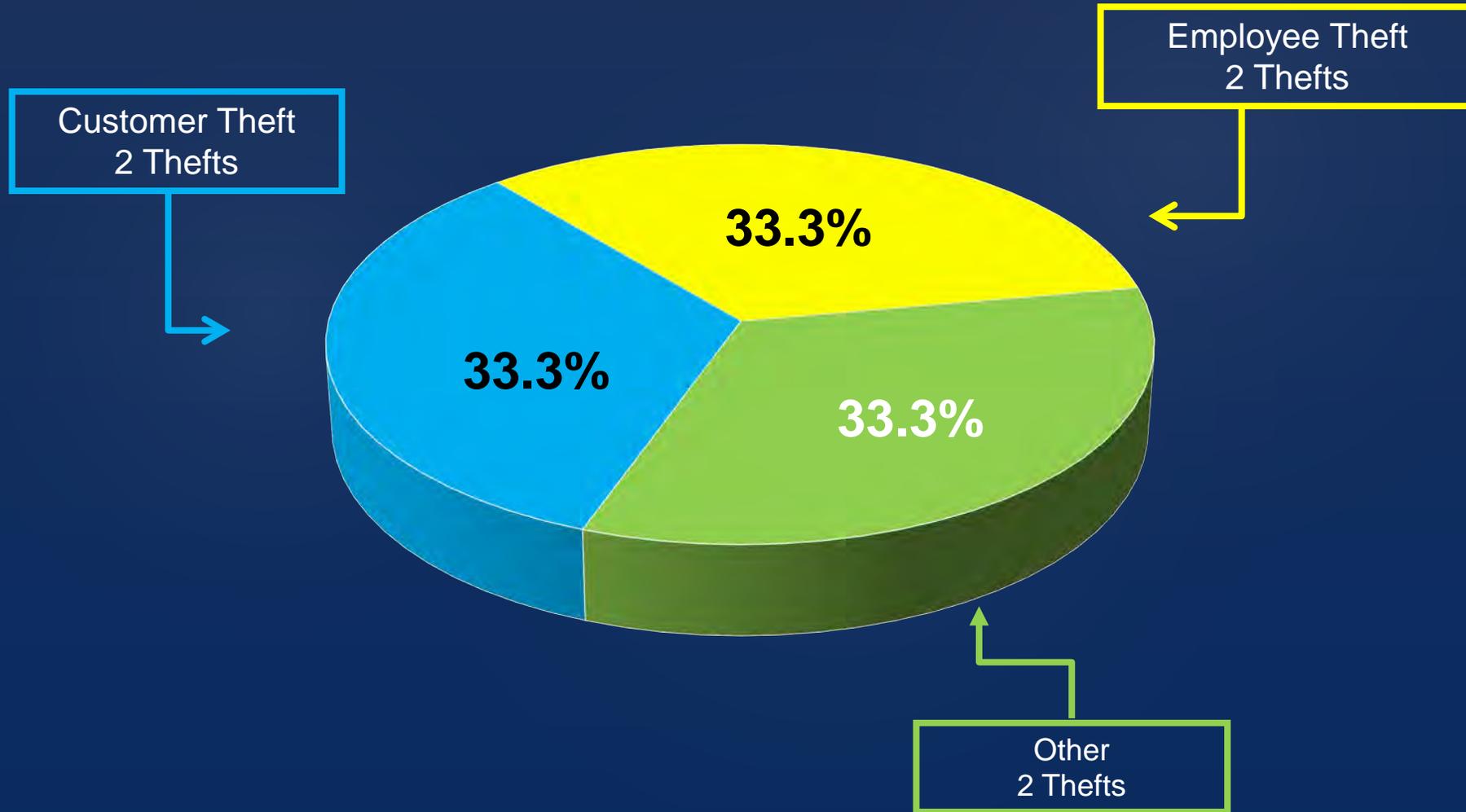
January 1, 2015 – September 30, 2019





District of Columbia Practitioner Thefts

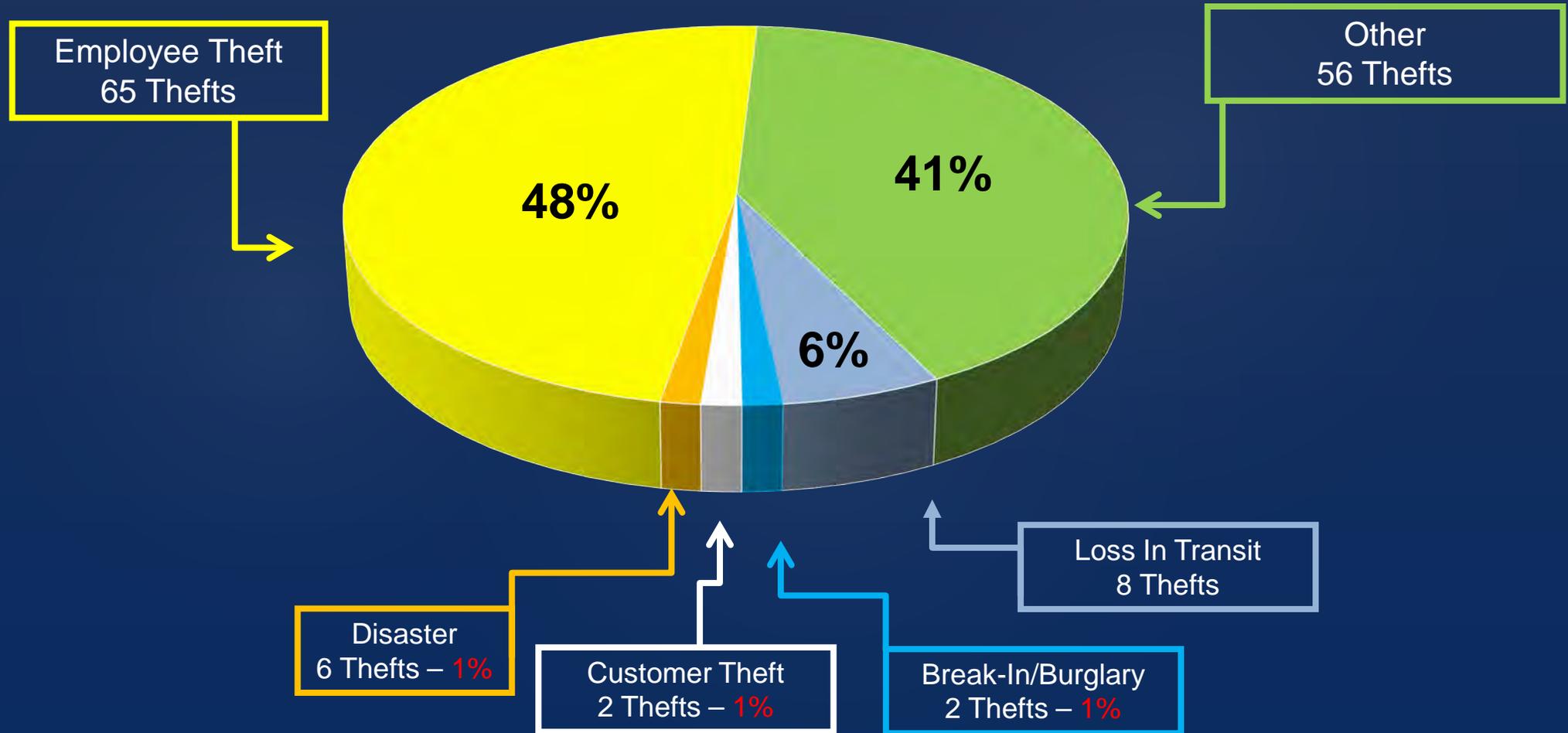
January 1, 2015 – September 30, 2019





Maryland Practitioner Thefts

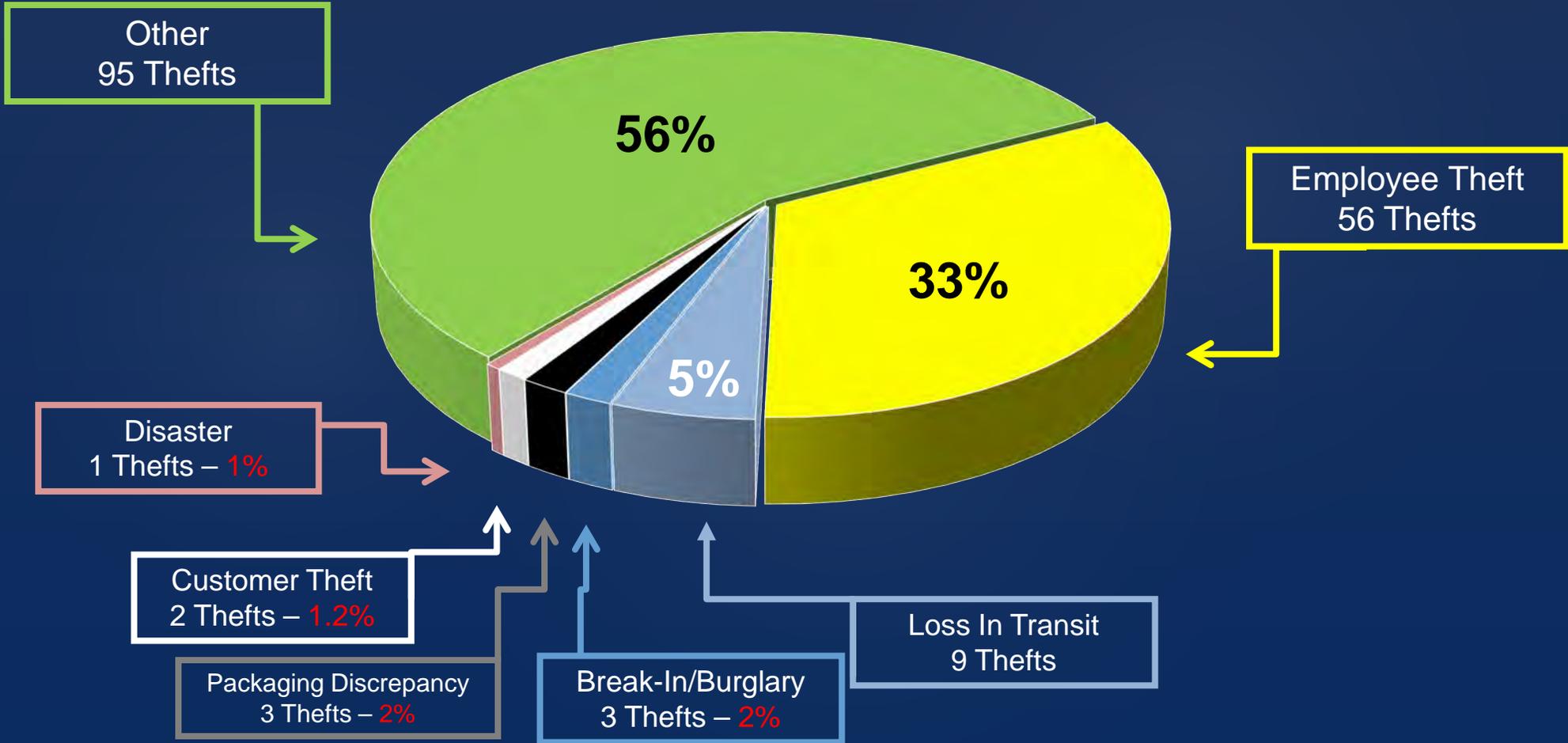
January 1, 2015 – September 30, 2019





Virginia Practitioner Thefts

January 1, 2015 – September 30, 2019





CDC Guidelines

Prescribing Opioids for Chronic Pain

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.**

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



CDC Guidelines

Prescribing Opioids for Chronic Pain

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.**



CDC Guidelines

Prescribing Opioids for Chronic Pain

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.**



CDC Guidelines

Prescribing Opioids for Chronic Pain

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.**



Post Questions

- 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**



Post Questions

2. Where does New Mexico rate in the United States in the amount of hydrocodone dispensed?

A. 15th

B. 2nd

C. 31st

D. 1st



Post Questions

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 70%**



Post Questions

- 4. What is the most misused prescription controlled substance pain reliever in the United States?**
- A. Oxycodone**
 - B. Morphine**
 - C. Hydrocodone**
 - D. Codeine**



Post Questions

- 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 !*

