

National Forensic Laboratory Information System (NFLIS)

Liqun L. Wong, M.S.

Chief, Data Analysis Unit

Drug and Chemical Evaluation Section

Office of Diversion Control

Drug Enforcement Administration

Washington, DC

Buprenorphine in the Treatment of Opioid Addiction: Reassessment 2010

Substance Abuse and Mental Health Services Administration (SAMHSA)

National Institute on Drug Abuse (NIDA)

Washington DC, May 11-12, 2010

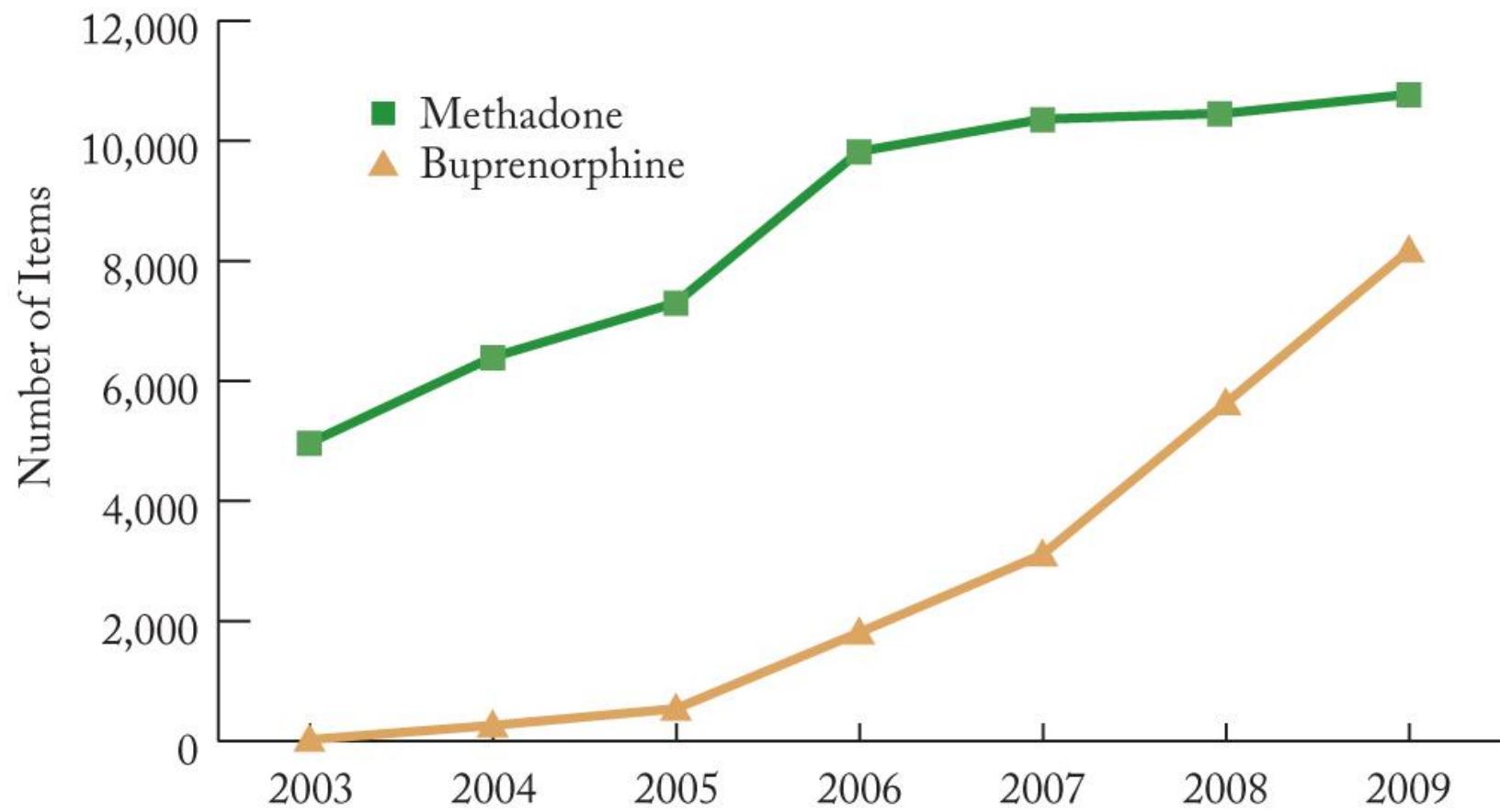
OVERVIEW OF NFLIS

- Collects drug analysis results from state and local crime labs.
- Database consists of information on over 10 million cases and drug items; case level data elements dating back to 1998.
- Currently, 283 of our Nation's 321 forensic labs have joined NFLIS.

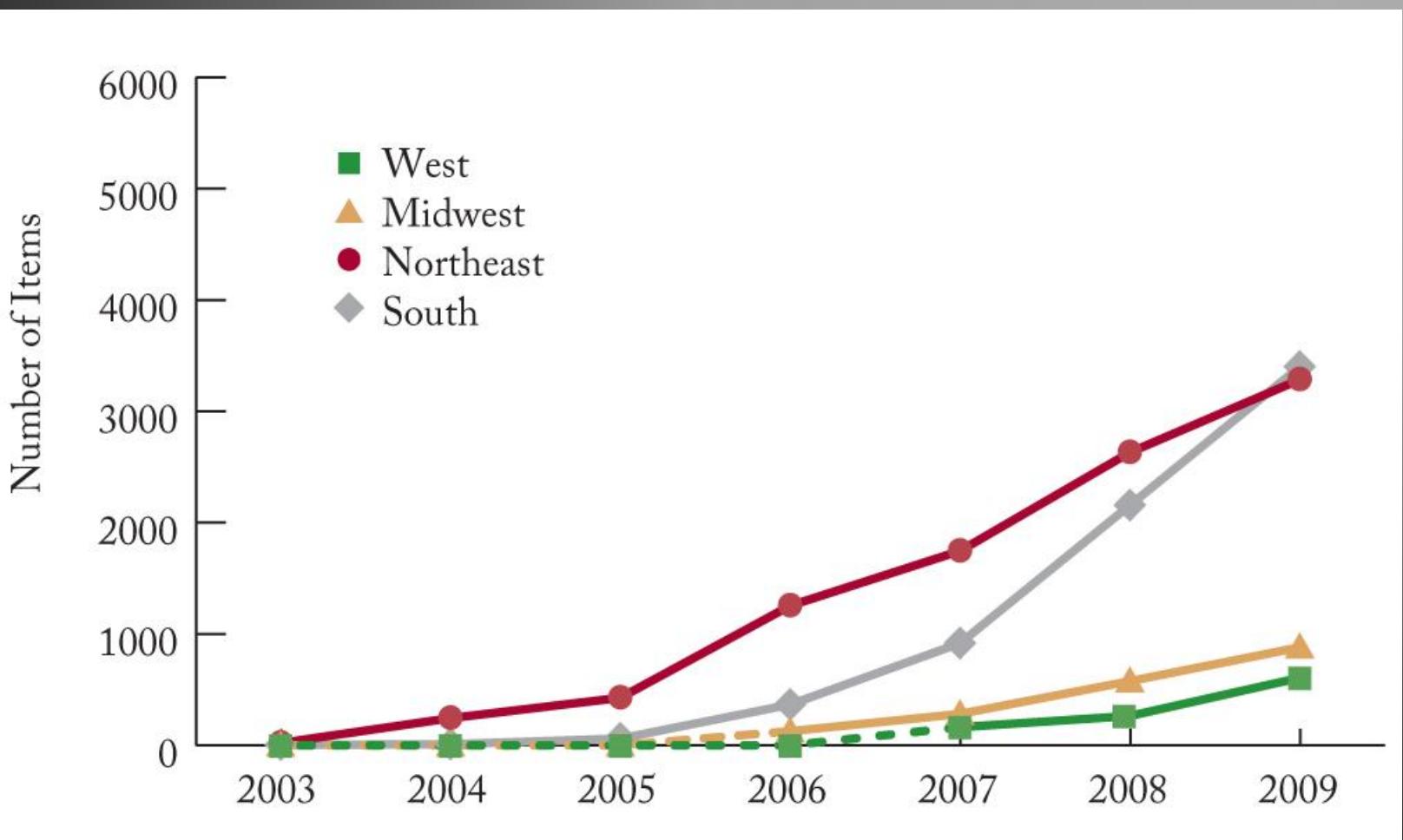
NFLIS Coverage Areas



National Trend Estimates – Methadone & Buprenorphine 2003-2009



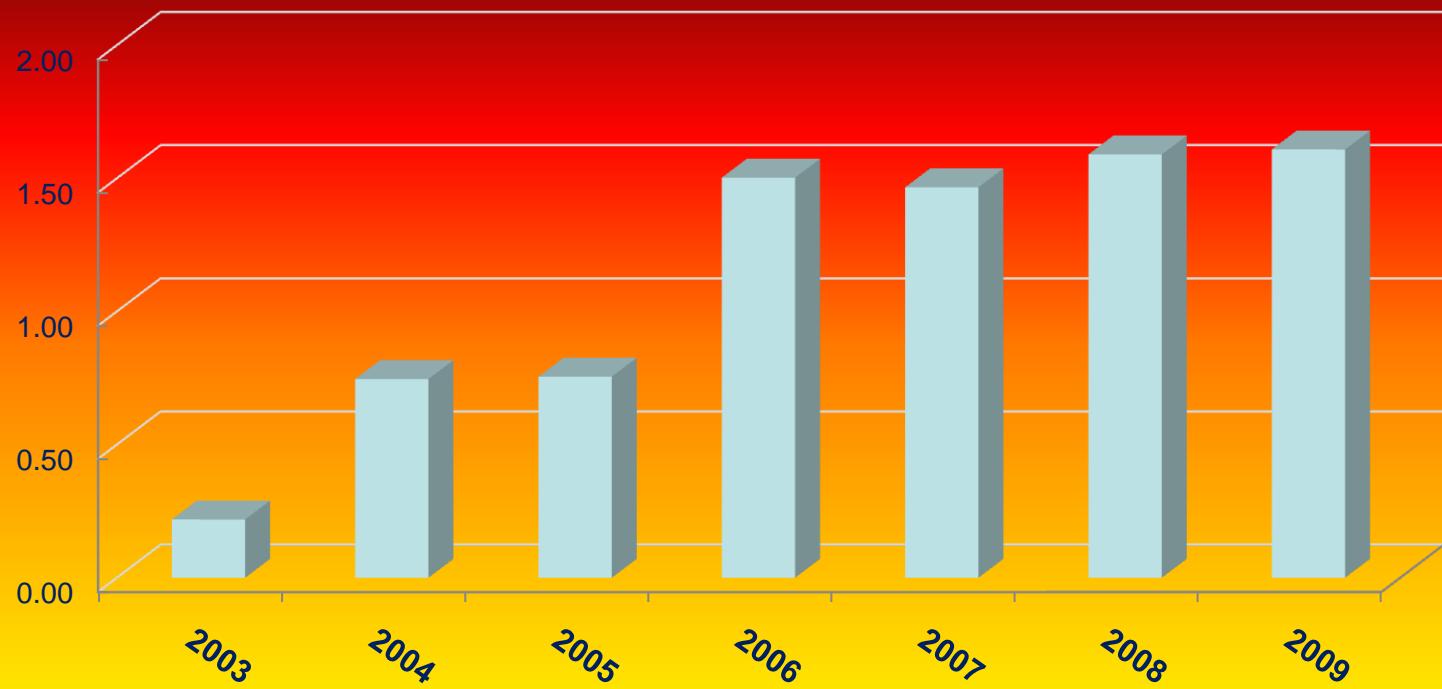
Regional Trend Estimates for Buprenorphine 2003-2009



A dashed trend line indicates that the trend estimate does not meet standards of precision and reliability.

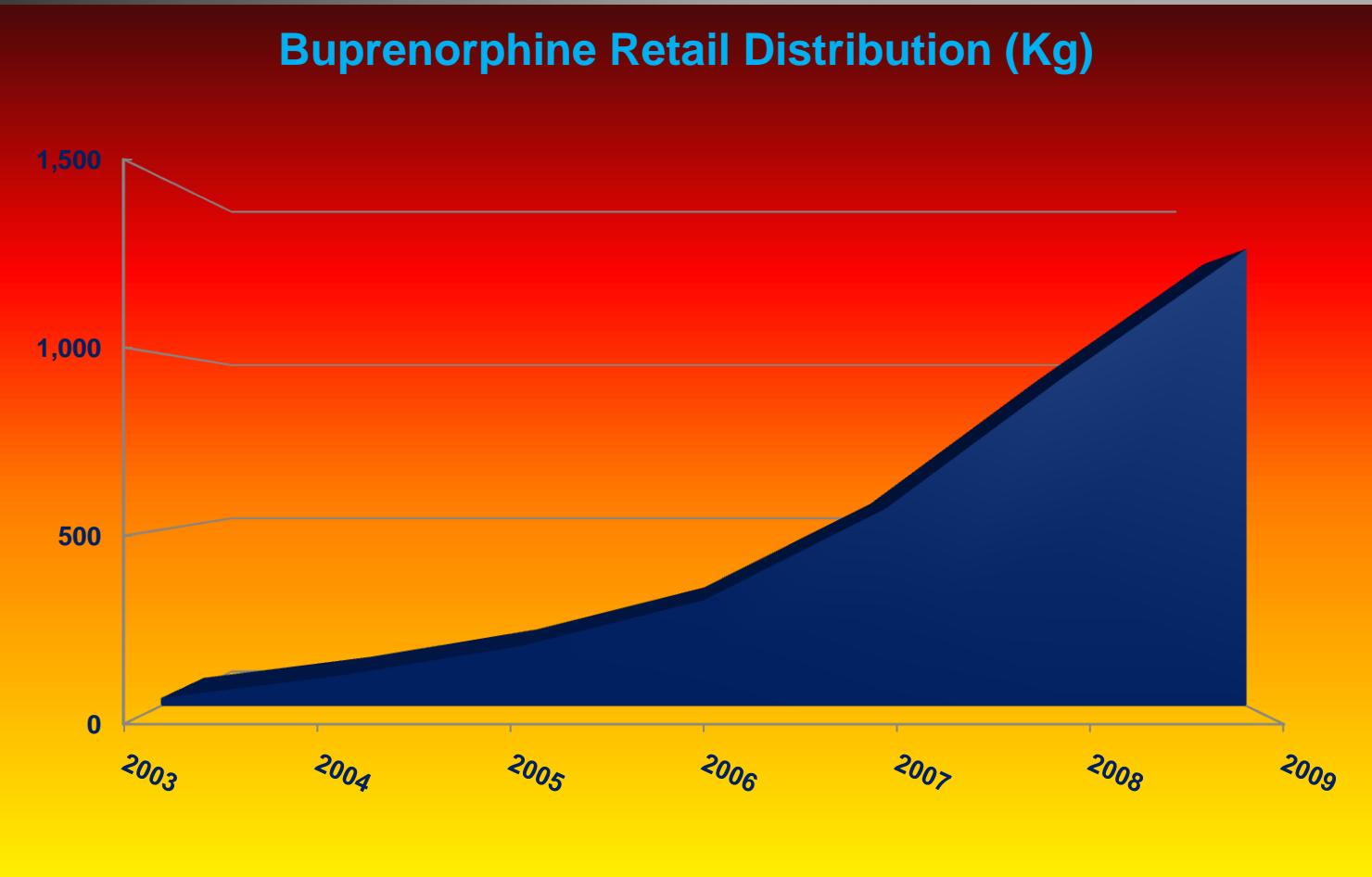
Diversion Rate - Buprenorphine

Number of NFLIS Seizure per 1000 Rx



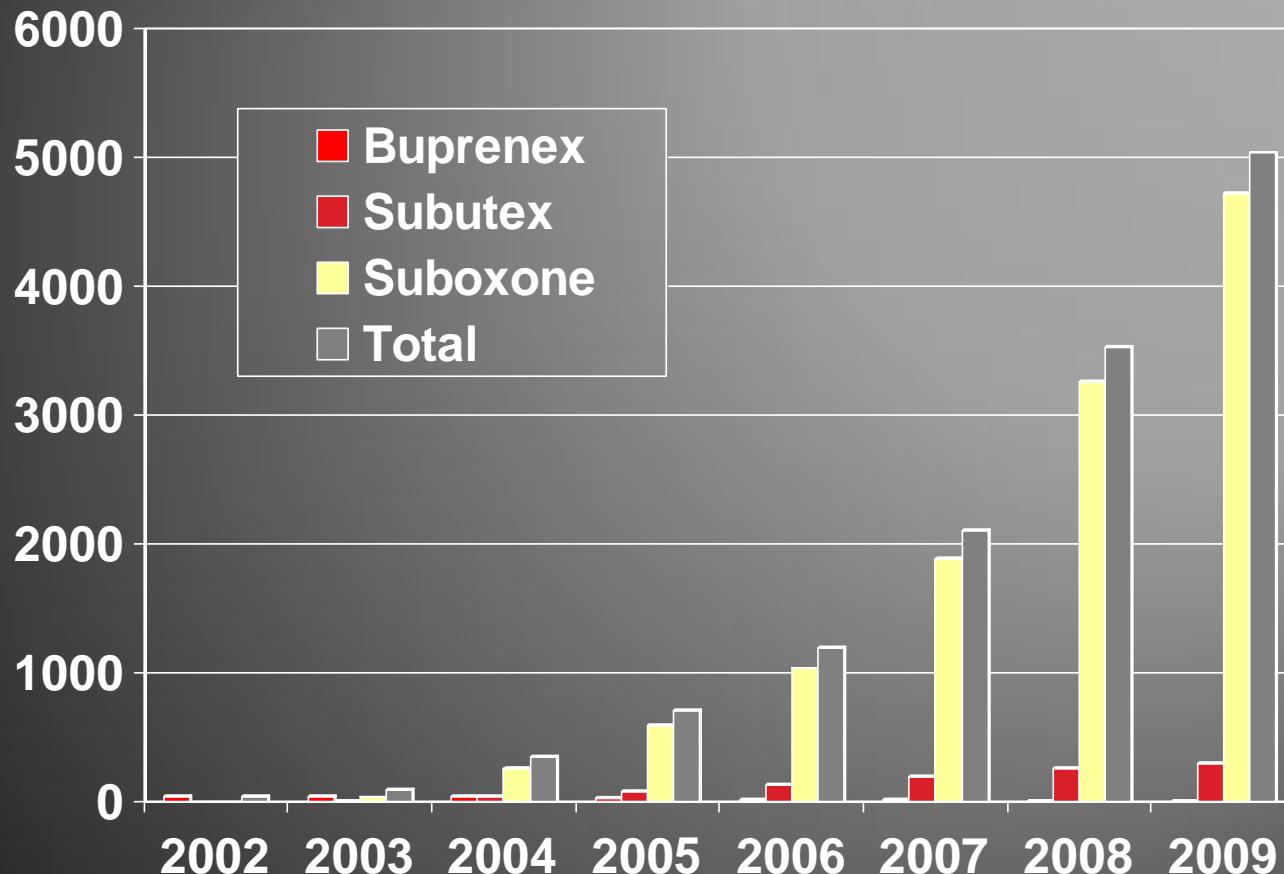
Retail Distribution

Buprenorphine Retail Distribution (Kg)



Data sources: IMS Health.

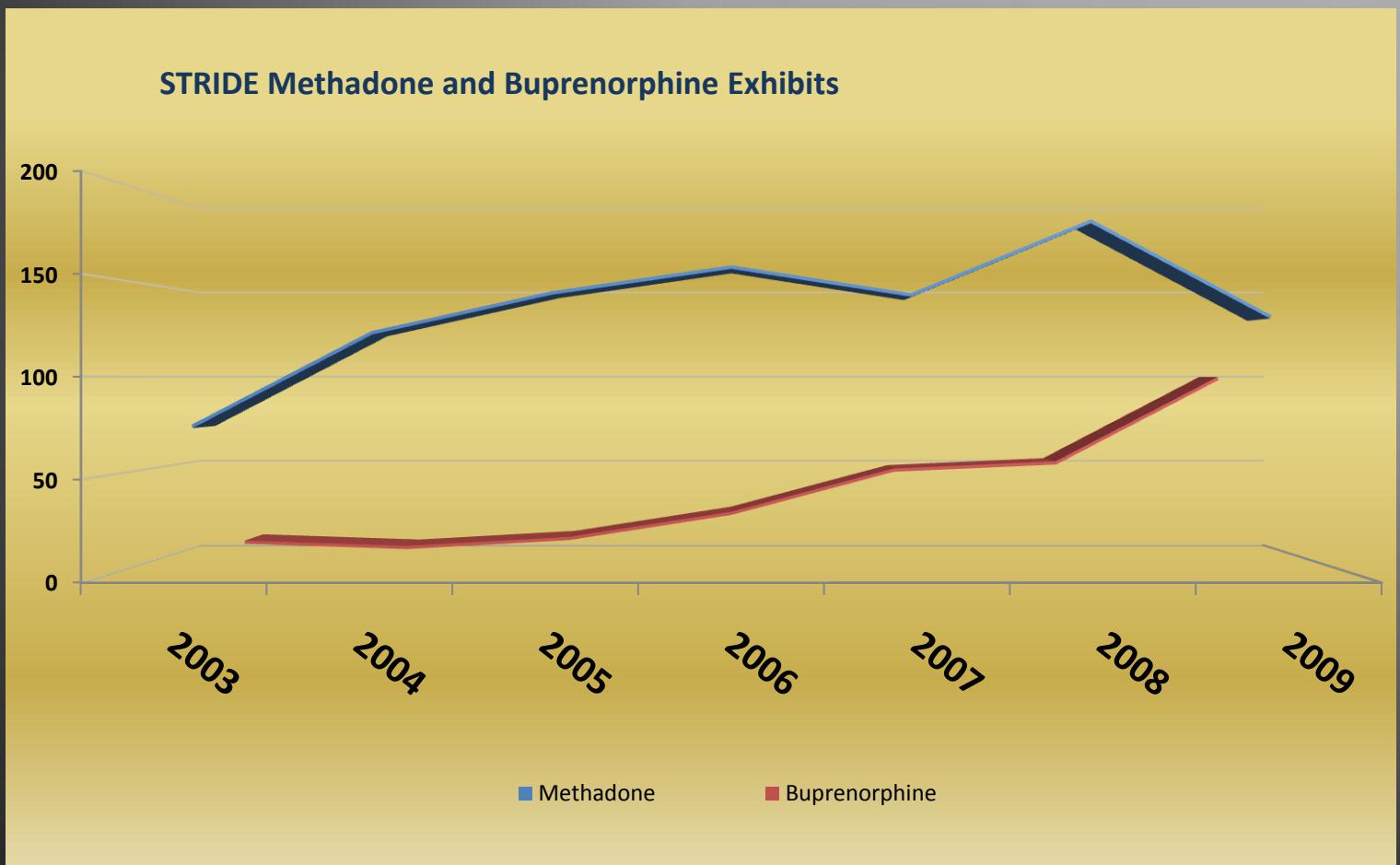
Buprenorphine Products Rx



From 2004 thru 2009 there was a 13 fold increase in buprenorphine prescriptions, and a 17 fold increase in Suboxone prescriptions.

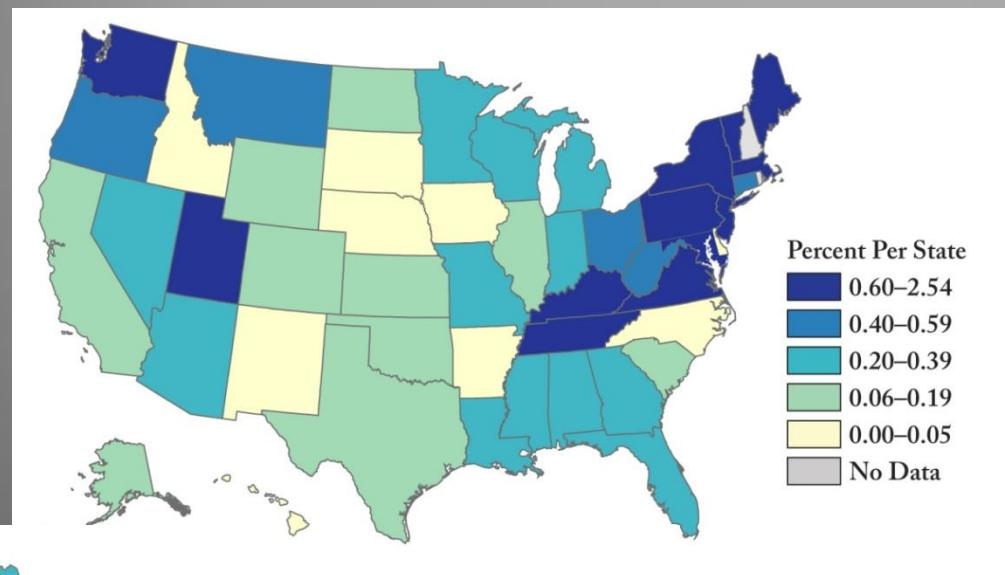
Source: IMS National Prescription Audit retrieved 05/04/2010.

STRIDE Drugs Seizure - by Year, 2003-2009

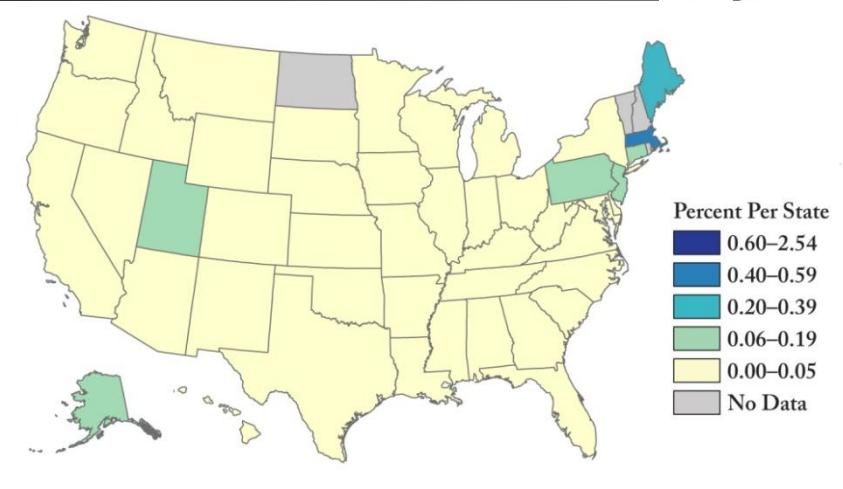


Percent of Analyzed Drug Items Identified as Buprenorphine, by State, 2005/2009

2009



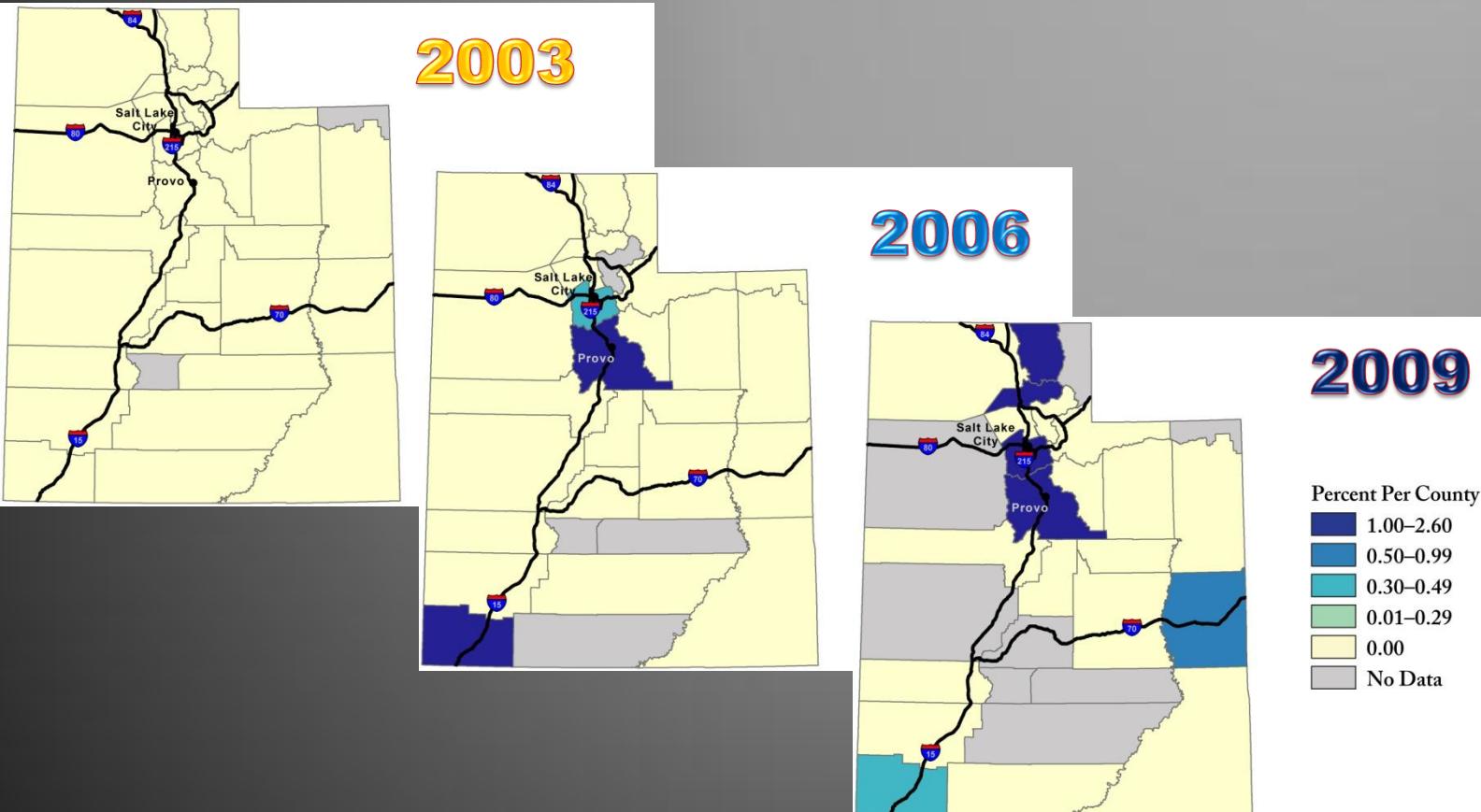
2005



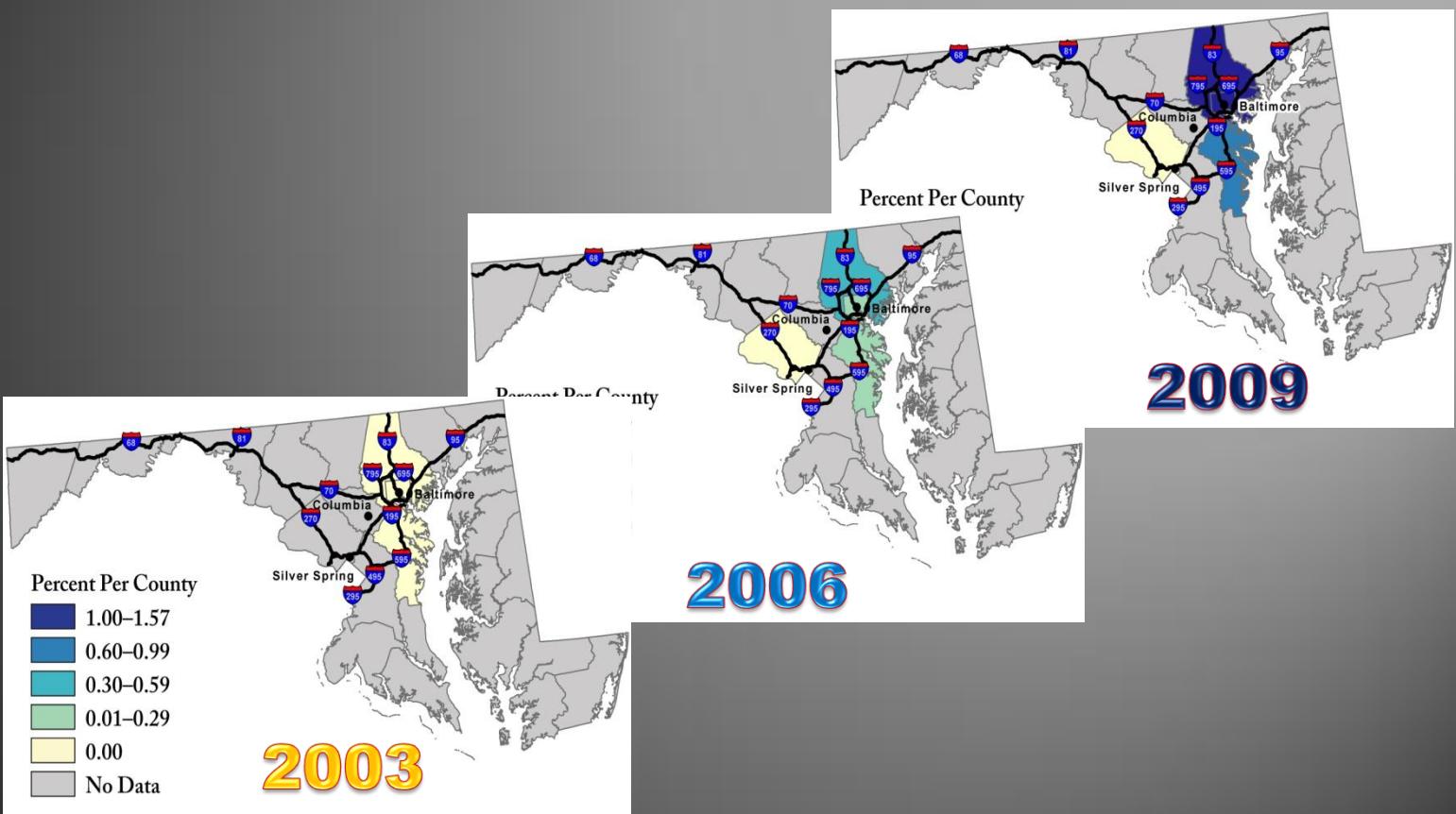
Percentage of analyzed drug items identified as buprenorphine KY, by county, 2003/2009



Percentage of analyzed drug items identified as buprenorphine Utah, by county, 2003/2006/2009



Percentage of analyzed drug items identified as buprenorphine Maryland, by county, 2003/2006/2009



Maryland State Police laboratories are not currently reporting to NFLIS.

Acknowledgements

DeMia Peters
NFLIS program officer

Artisha Polk
Mathematic Statistician

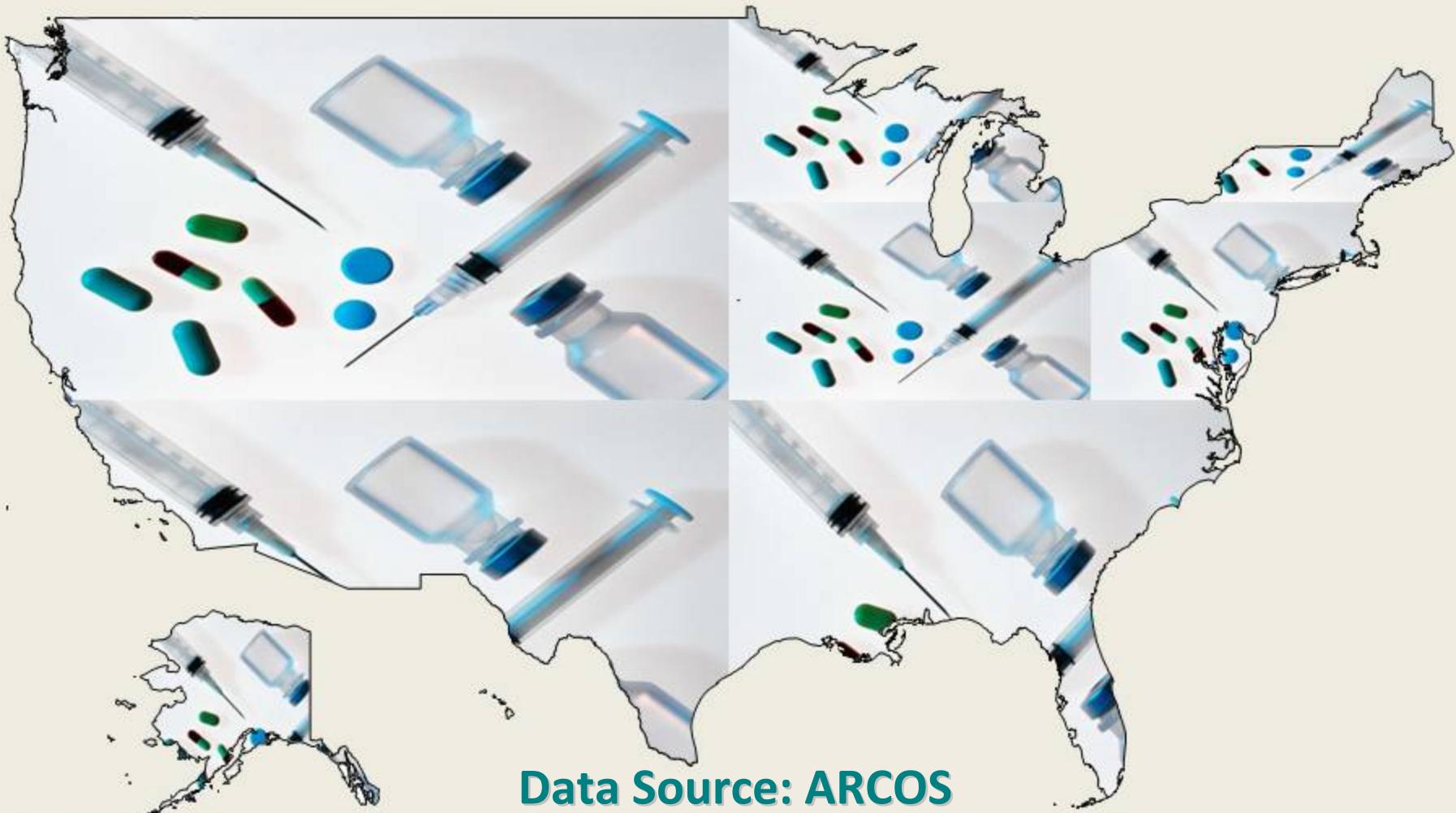
Contact Us

**Drug Enforcement Administration
Headquarters
Office of Diversion Control
Drug and Chemical Evaluation Section
8701 Morrissette Drive
Springfield, VA 22152**

**Tel: 202-307-7183
Fax: 202-353-1263
Email: ODE@usdoj.gov**



Buprenorphine Distribution Nationwide



Data Source: ARCOS

(Automation of Reports and Consolidated Orders System)

WHO MUST REPORT TO ARCos?

- Manufacturers
- Distributors

WHAT IS REPORTED?

- Inventories
- Acquisitions (i.e. Purchases, Returns)
- Dispositions (i.e. Sales, Destructions)
- Manufacturing Activities

DRUGS REPORTED TO ARCos

- All Schedules I & II
- Schedule III Narcotics
- Schedule III GHB Products
- Schedule III & IV Psychotropics
(Manufacturing Activities Only)

- Buprenorphine
- Hydrocodone
- Oxycodone
- Methadone
- Meperidine
- Fentanyl
- Codeine
- Hydromorphone
- Amphetamines
- Methylphenidate
- D-Methamphetamine
- Cocaine

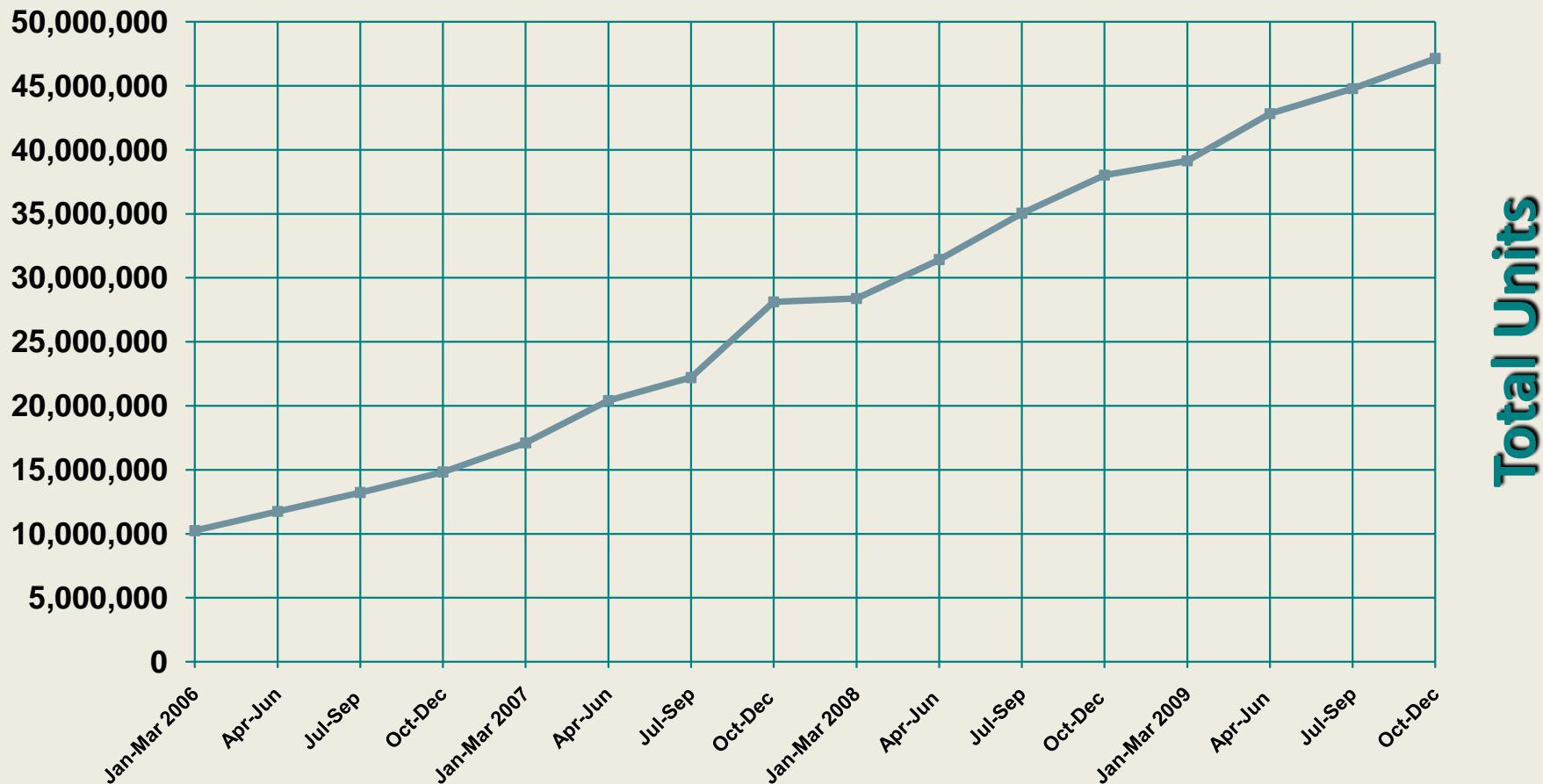
BUPRENORPHINE PRODUCTS INCLUDED IN THIS PRESENTATION

- **Suboxone, 2mg Tablets**
- **Suboxone, 8mg Tablets**
- **Subutex, 2mg Tablets**
- **Subutex, 8mg Tablets**
- **Generic Buprenorphine, 2mg Tablets**
- **Generic Buprenorphine, 8mg Tablets**
- **Buprenex Injectables**
- **Generic Buprenorphine Injectables**

DISTRIBUTION OF BUPRENORPHINE TO PHARMACIES, HOSPITALS, PRACTITIONERS, AND NARCOTIC TREATMENT PROGRAMS

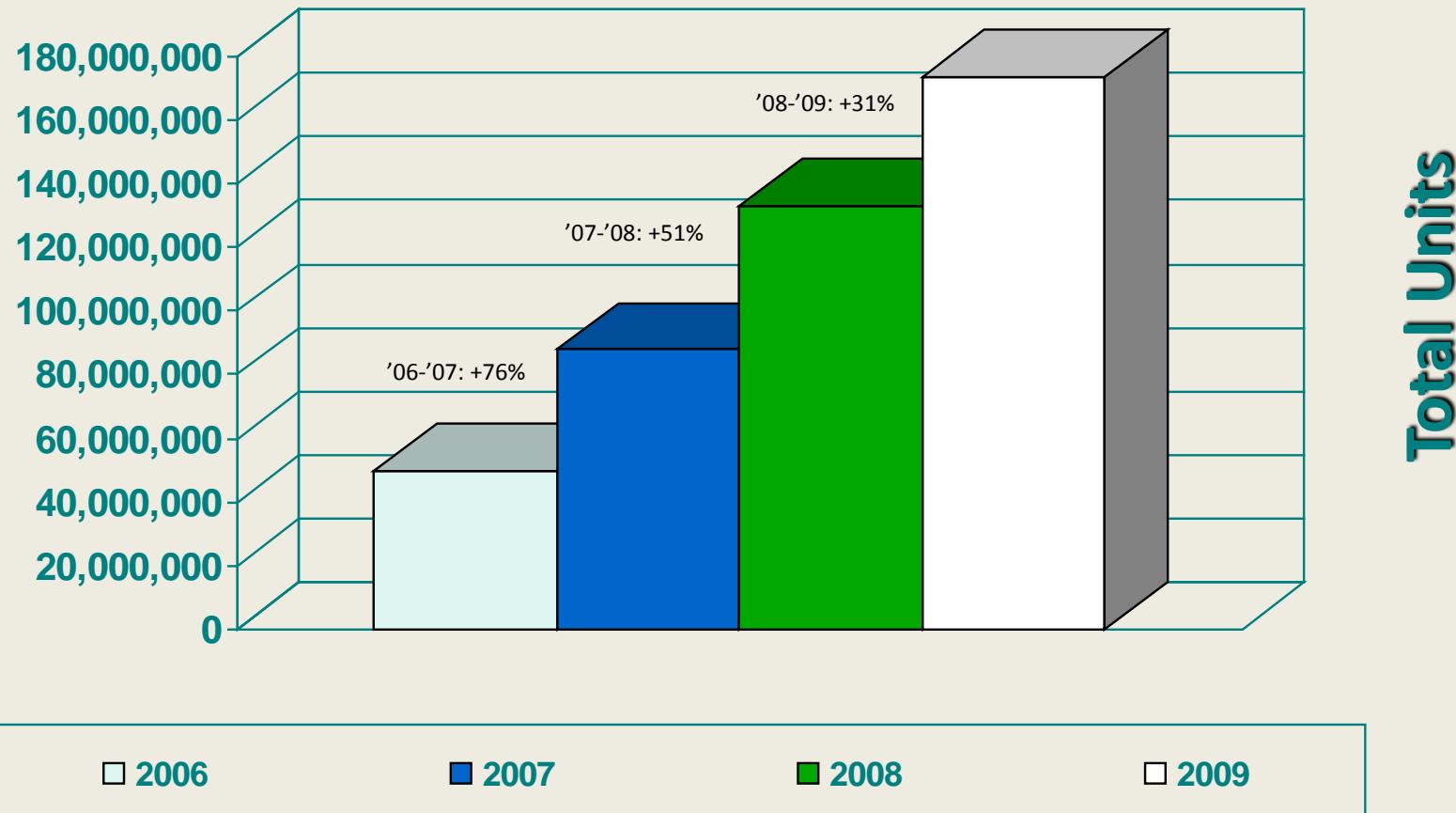
Nationwide Distribution* of Buprenorphine

January, 2006 – December, 2009



*Includes sales to Pharmacies, Hospitals, Practitioners, and NTP's

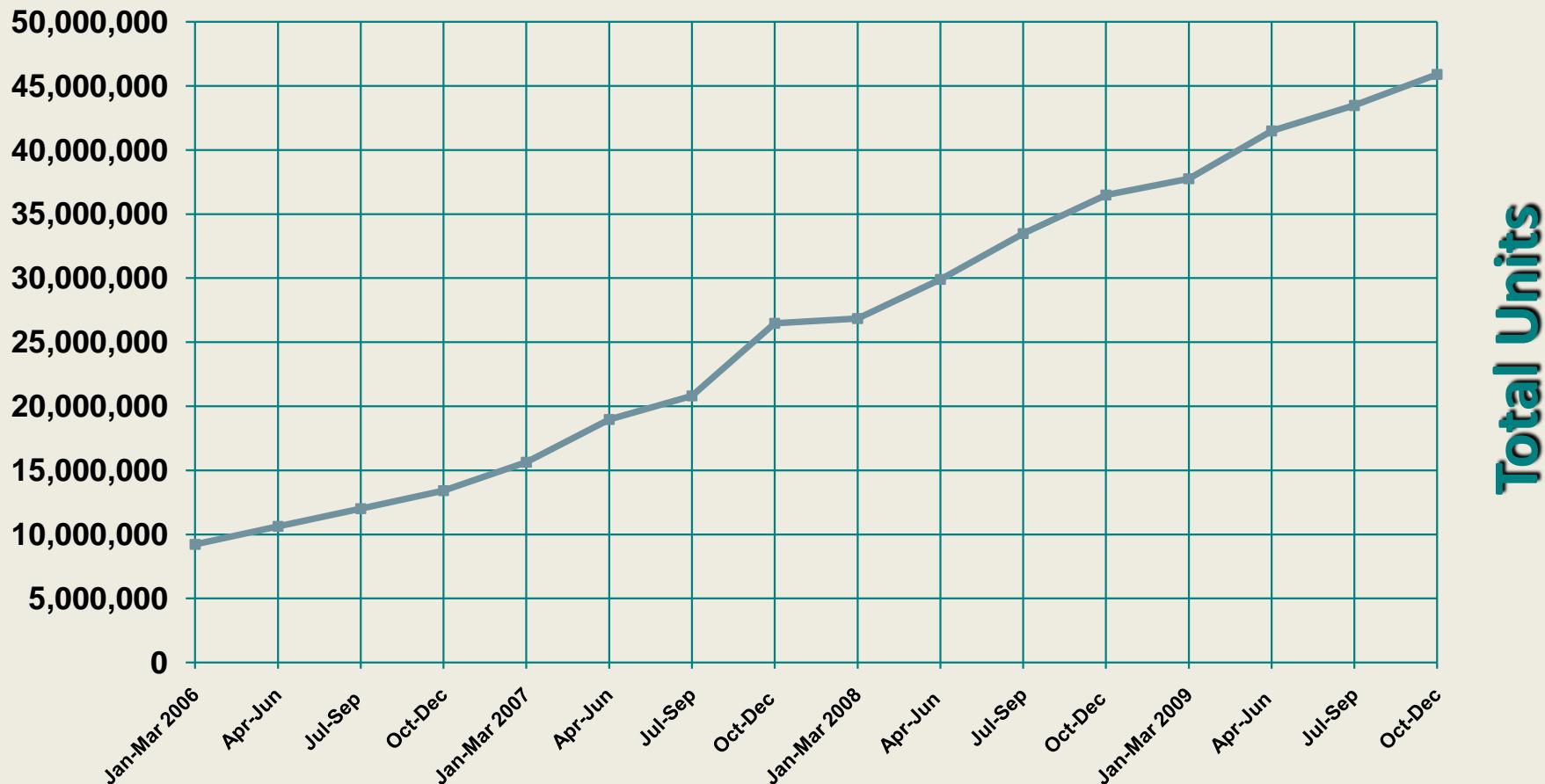
Yearly Comparison of Buprenorphine Distribution*



*Includes sales to Pharmacies, Hospitals, Practitioners, and NTP's

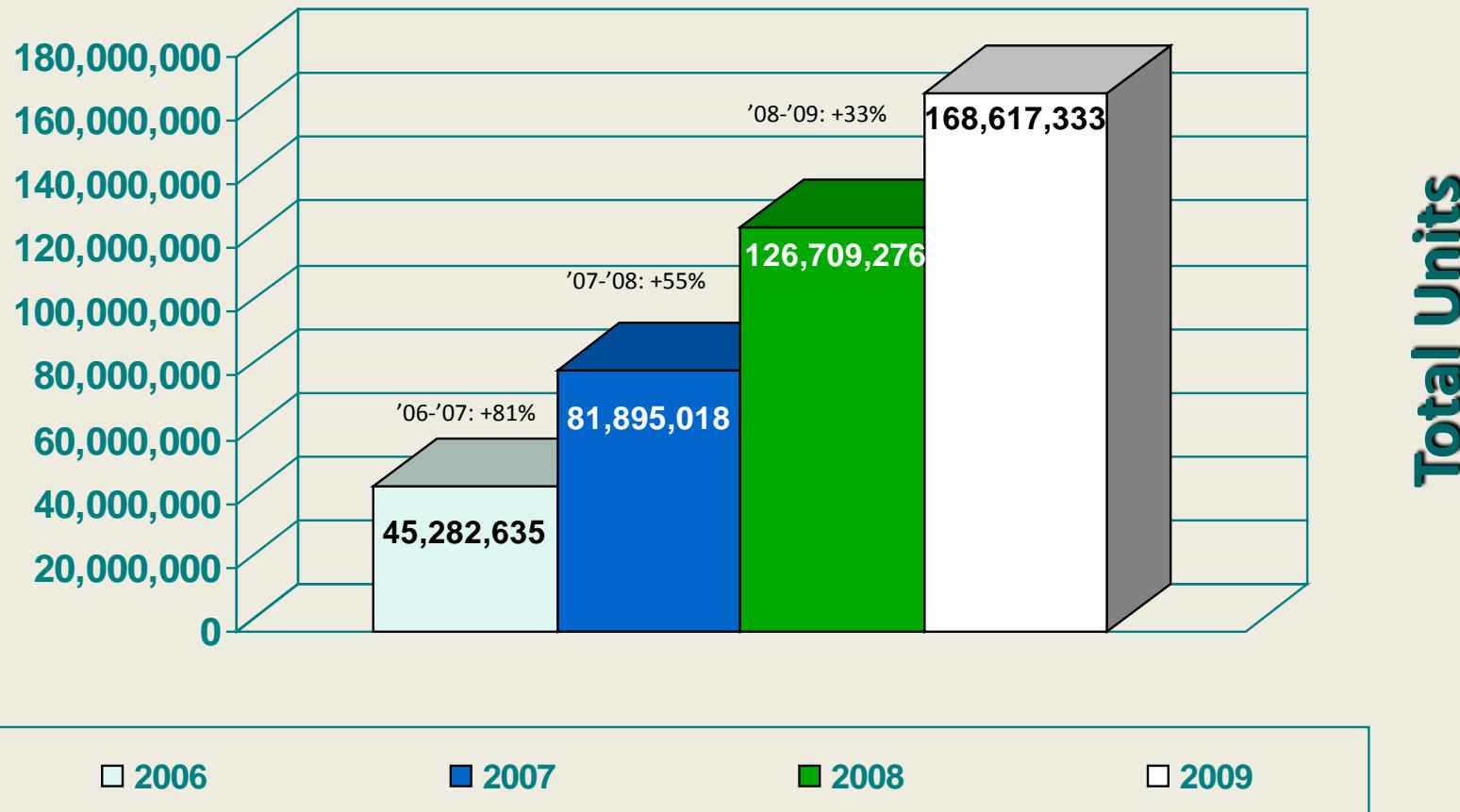
Nationwide Distribution* of Suboxone, Subutex and Generic Tablets

January, 2006 – December, 2009



*Includes sales to Pharmacies, Hospitals, Practitioners, and NTP's

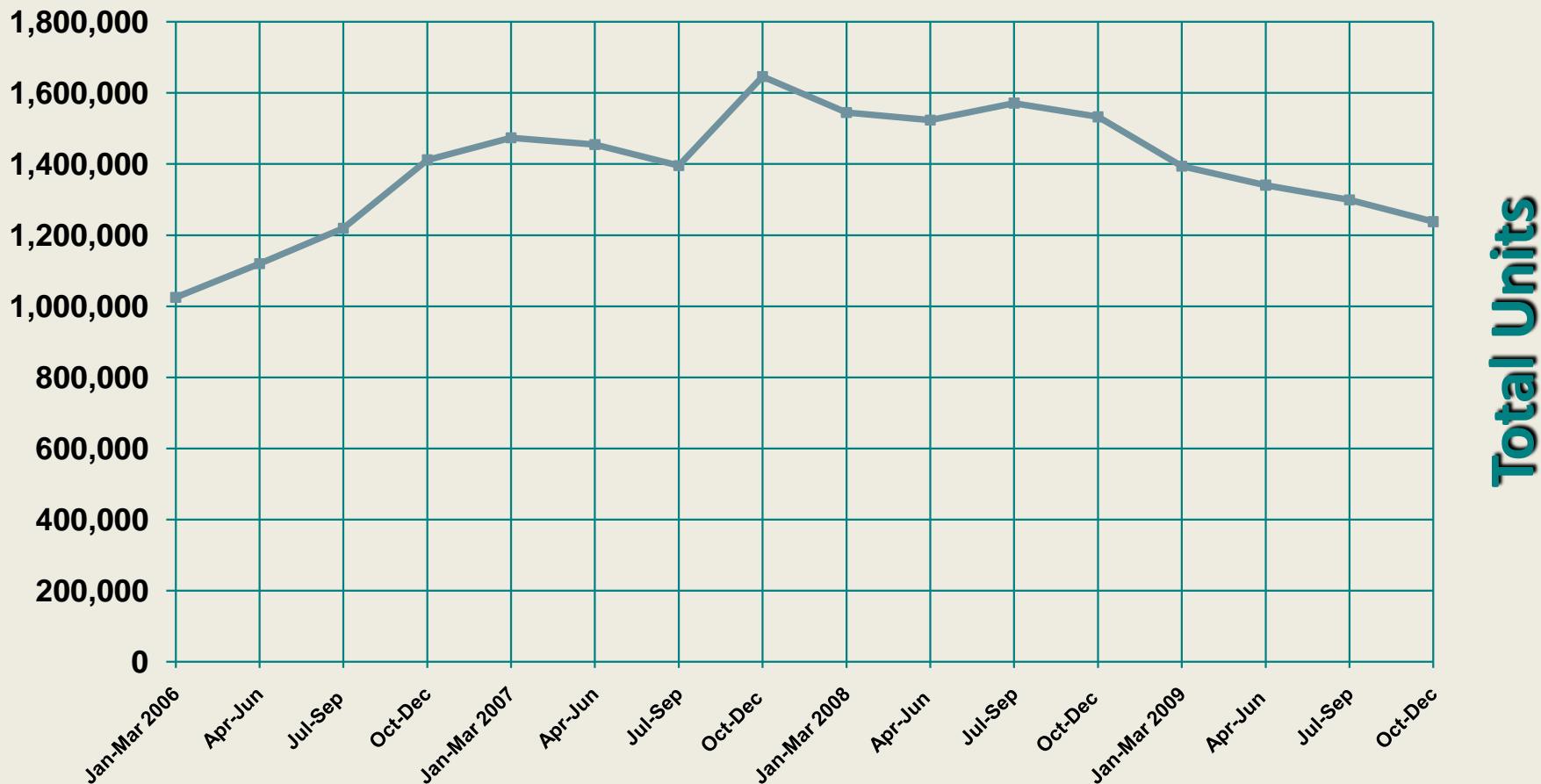
Yearly Comparison of Suboxone-Subutex and Generic Tablets



Includes sales to Pharmacies, Hospitals, Practitioners, and NTP's

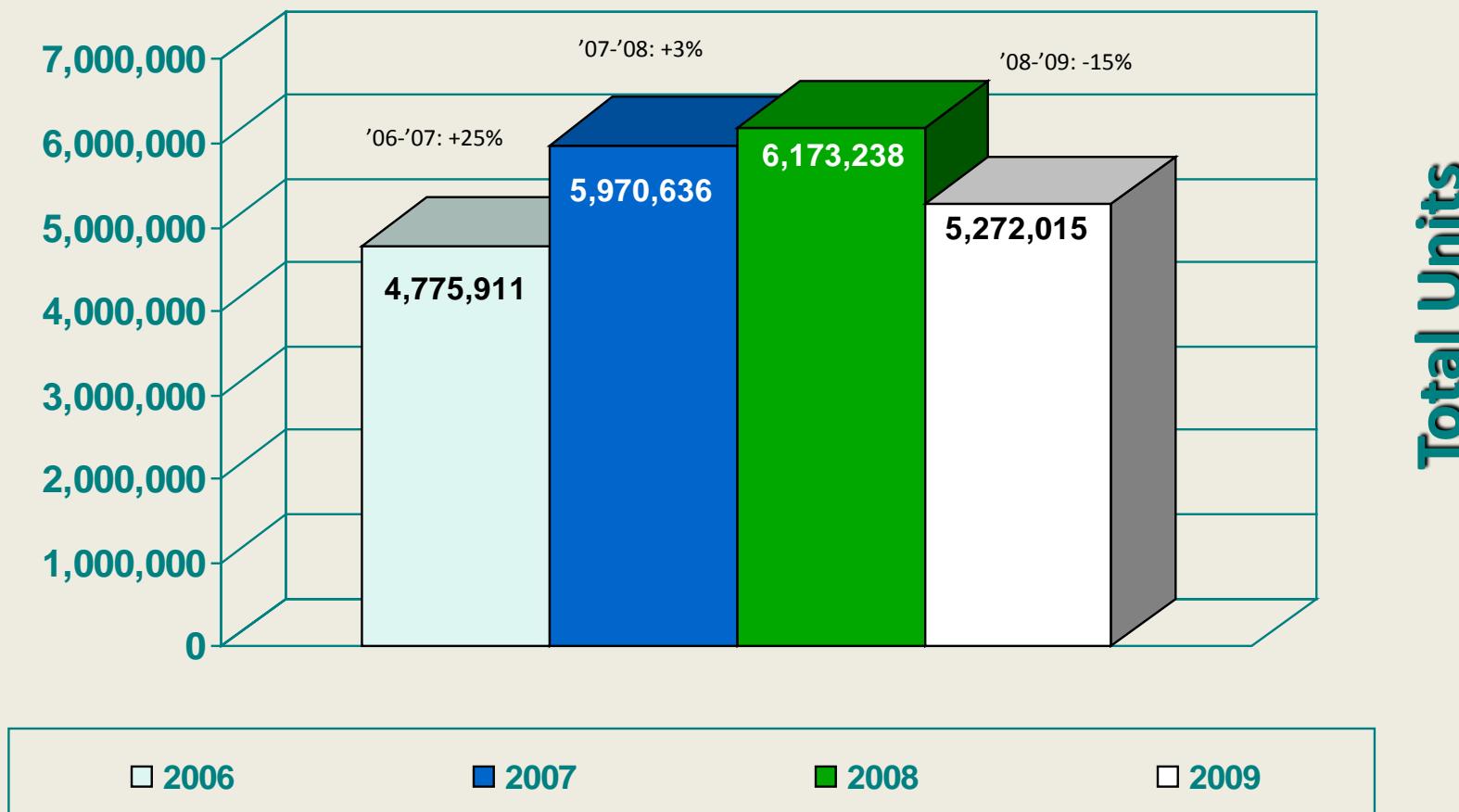
Nationwide Distribution* of Buprenex and Generic Injectables

January, 2006 – March, 2009



*Includes sales to Pharmacies, Hospitals, Practitioners, and NTP's

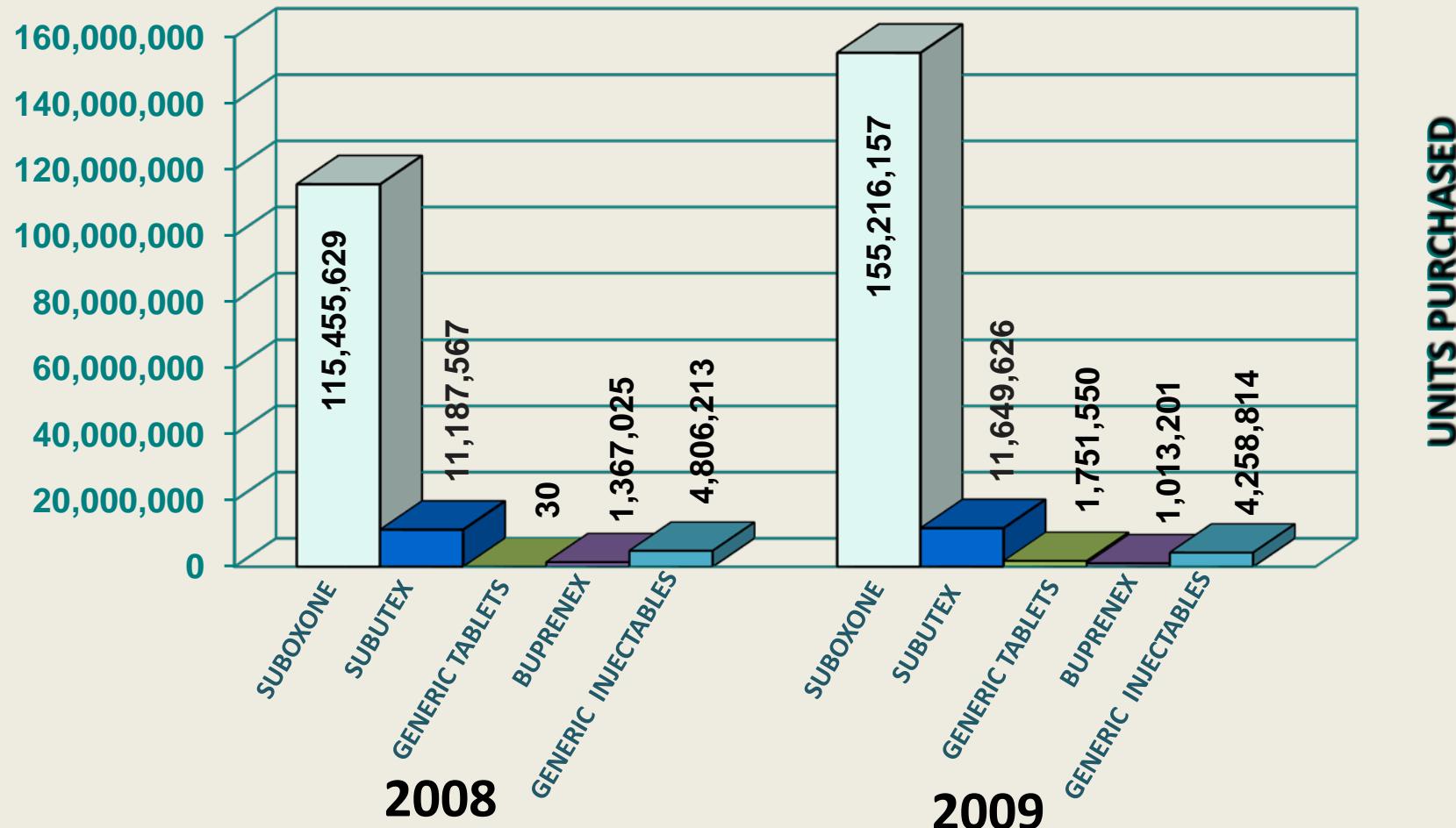
Yearly Comparison of Buprenex and Generic Injectables



Includes sales to Pharmacies, Hospitals, Practitioners, and NTP's

Nationwide Distribution* of Buprenorphine

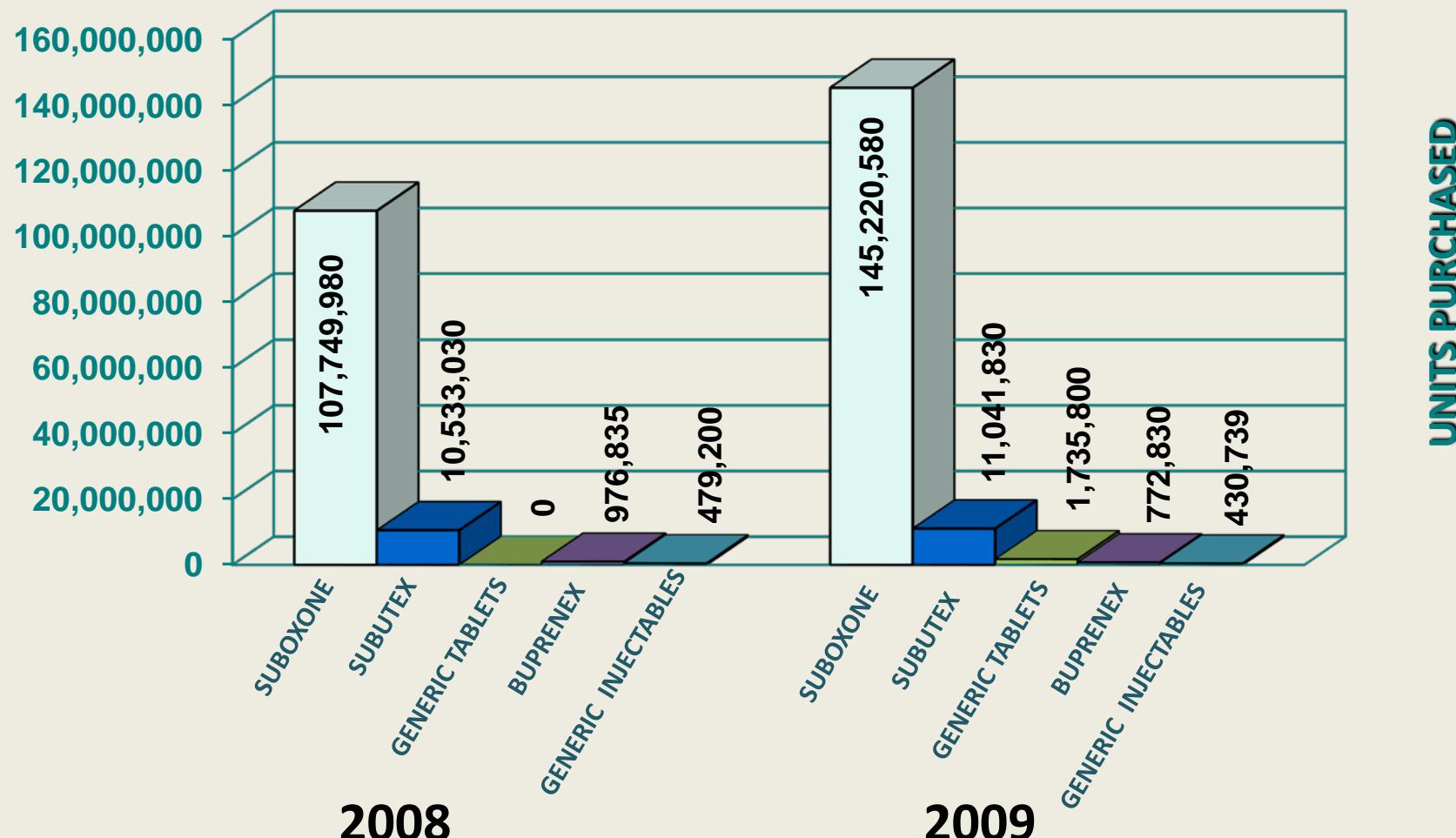
January, 2008 – December, 2009



*Includes sales to Pharmacies, Hospitals, Practitioners, and NTP's

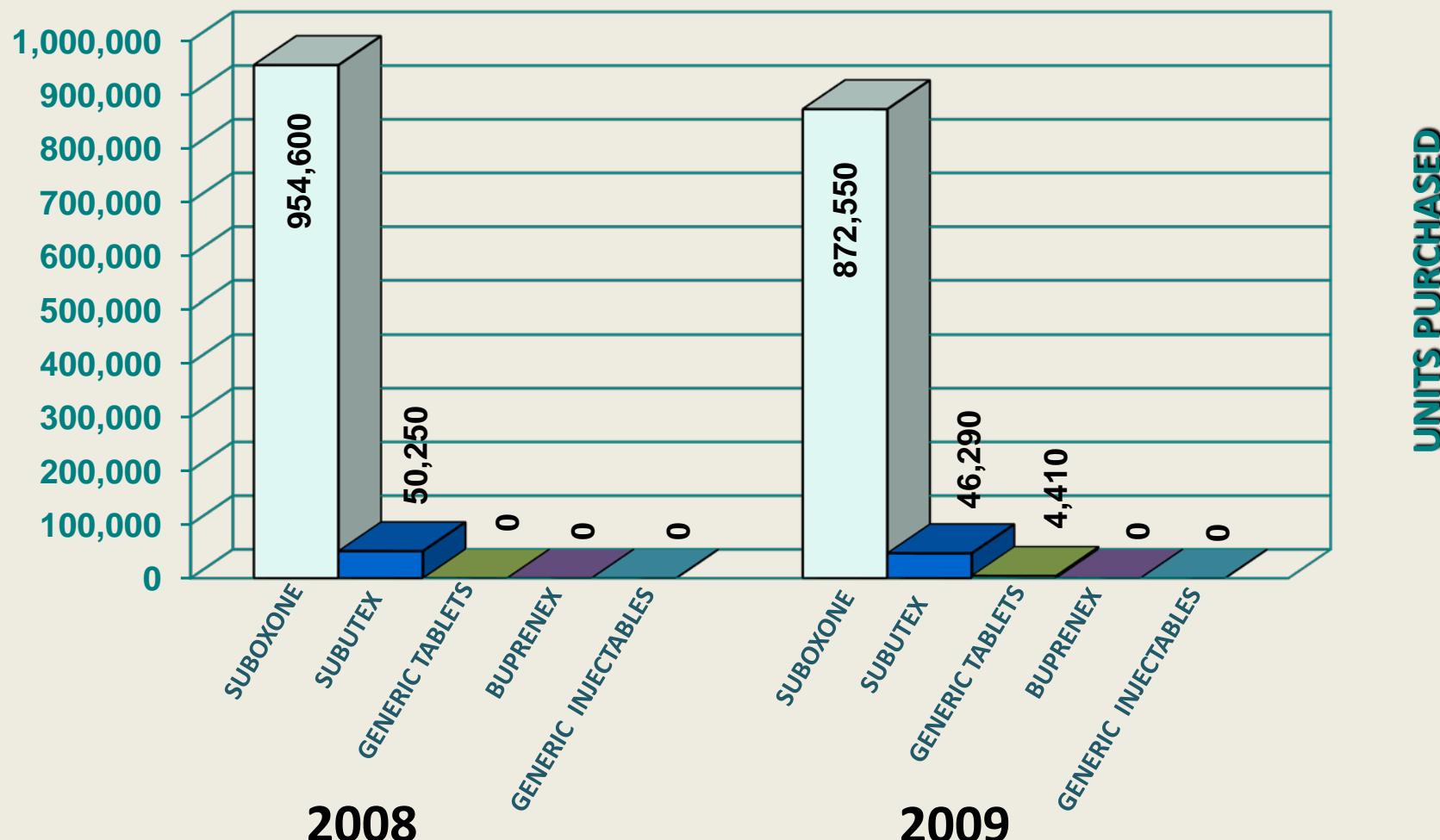
Nationwide Distribution of Buprenorphine to Pharmacies

January, 2008 – December, 2009



Nationwide Distribution of Buprenorphine to Narcotic Treatment Programs

January, 2008 – December, 2009

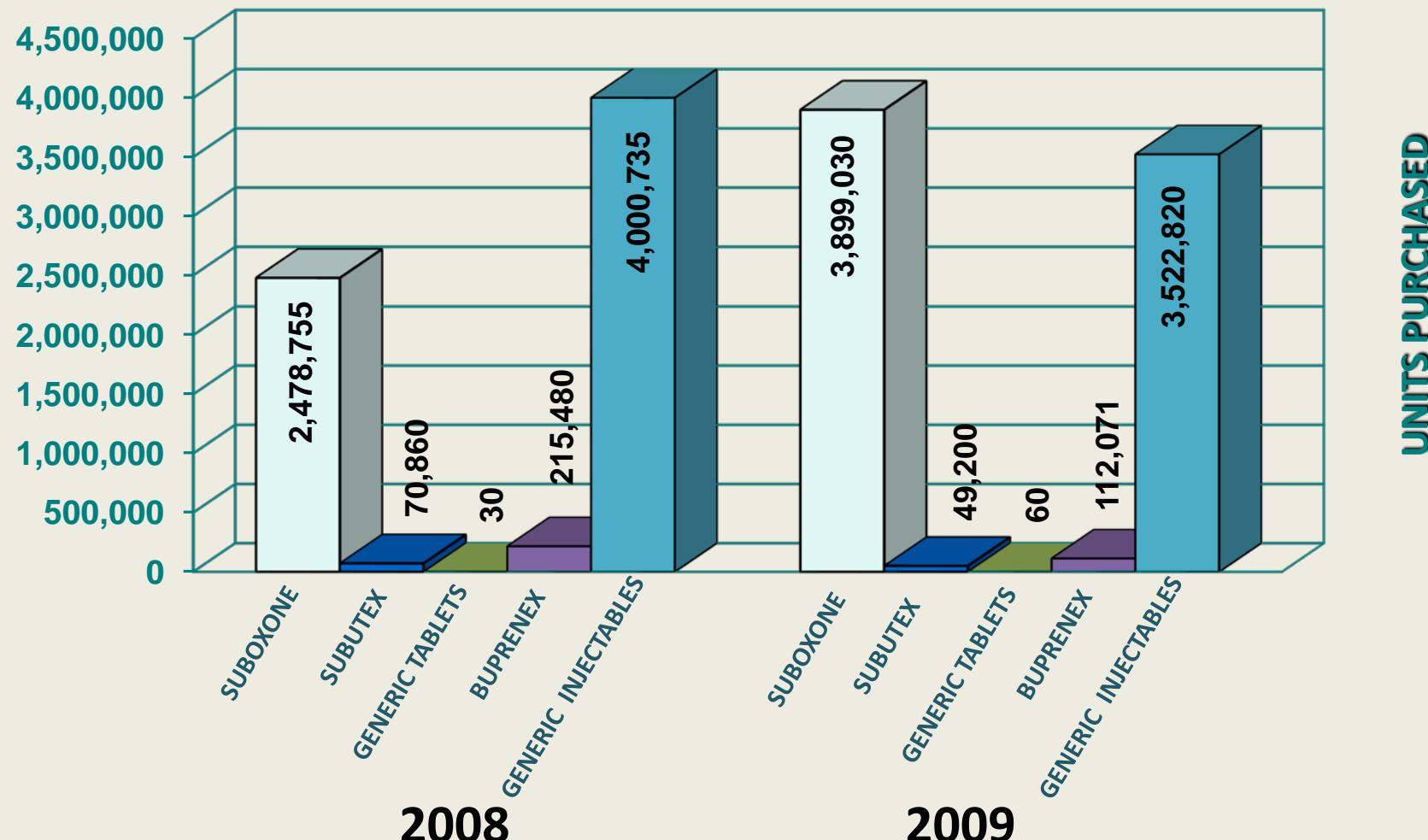


Source: ARCOS

Date Prepared: 05/07/2010

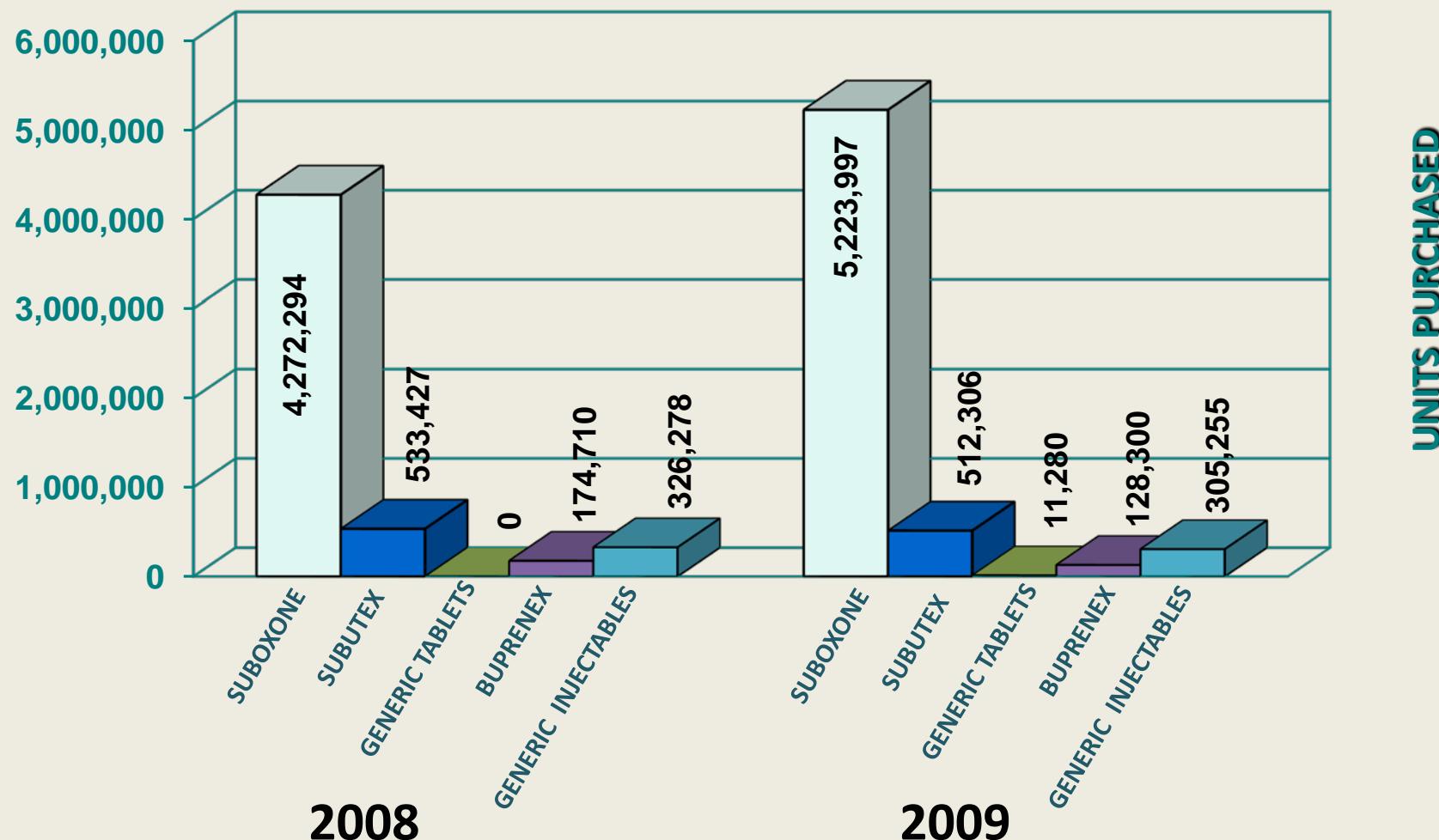
Nationwide Distribution of Buprenorphine to Practitioners

January, 2008 – December, 2009



Nationwide Distribution of Buprenorphine to Hospitals

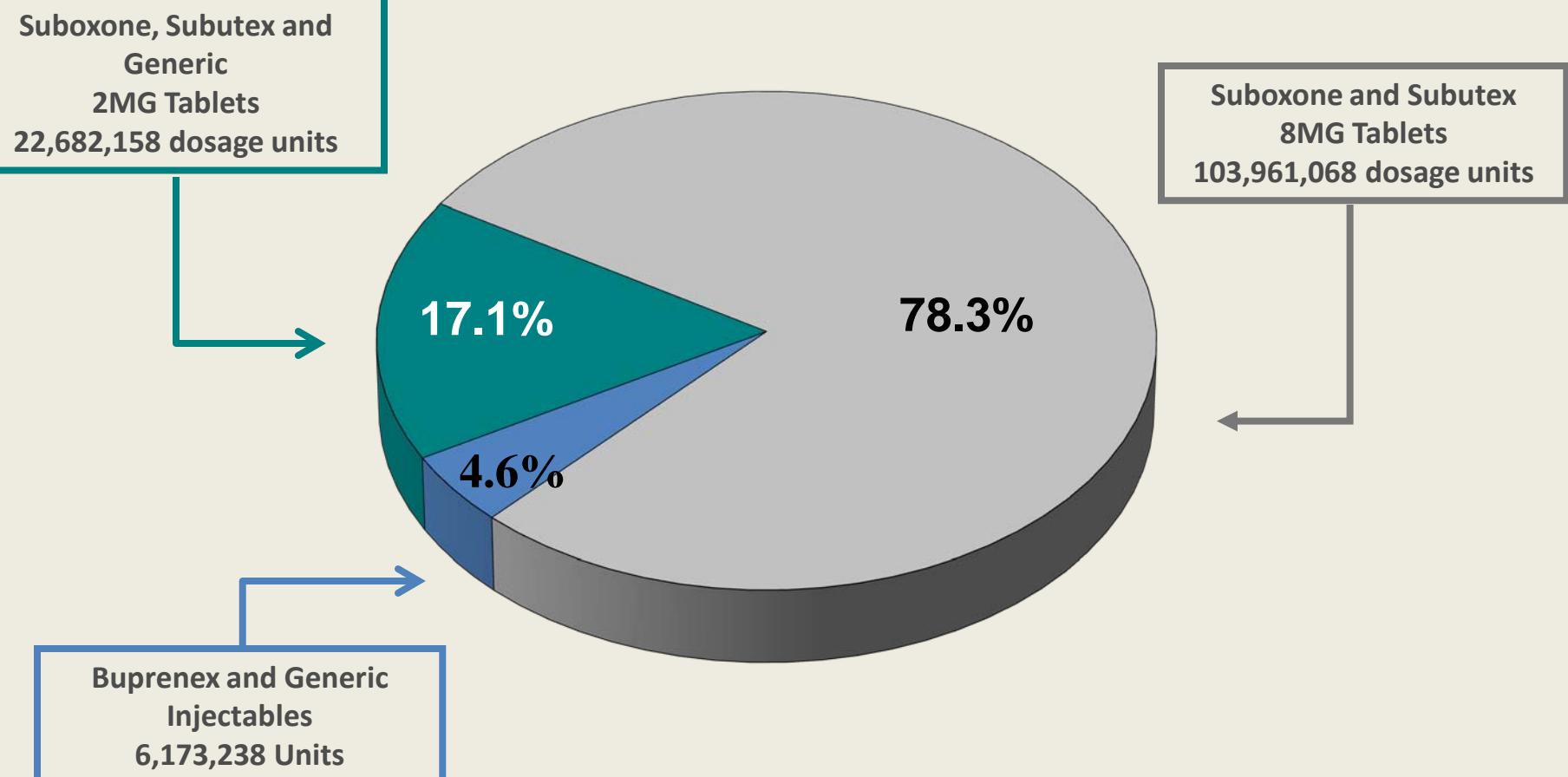
January, 2008 – December, 2009



Source: ARCOS

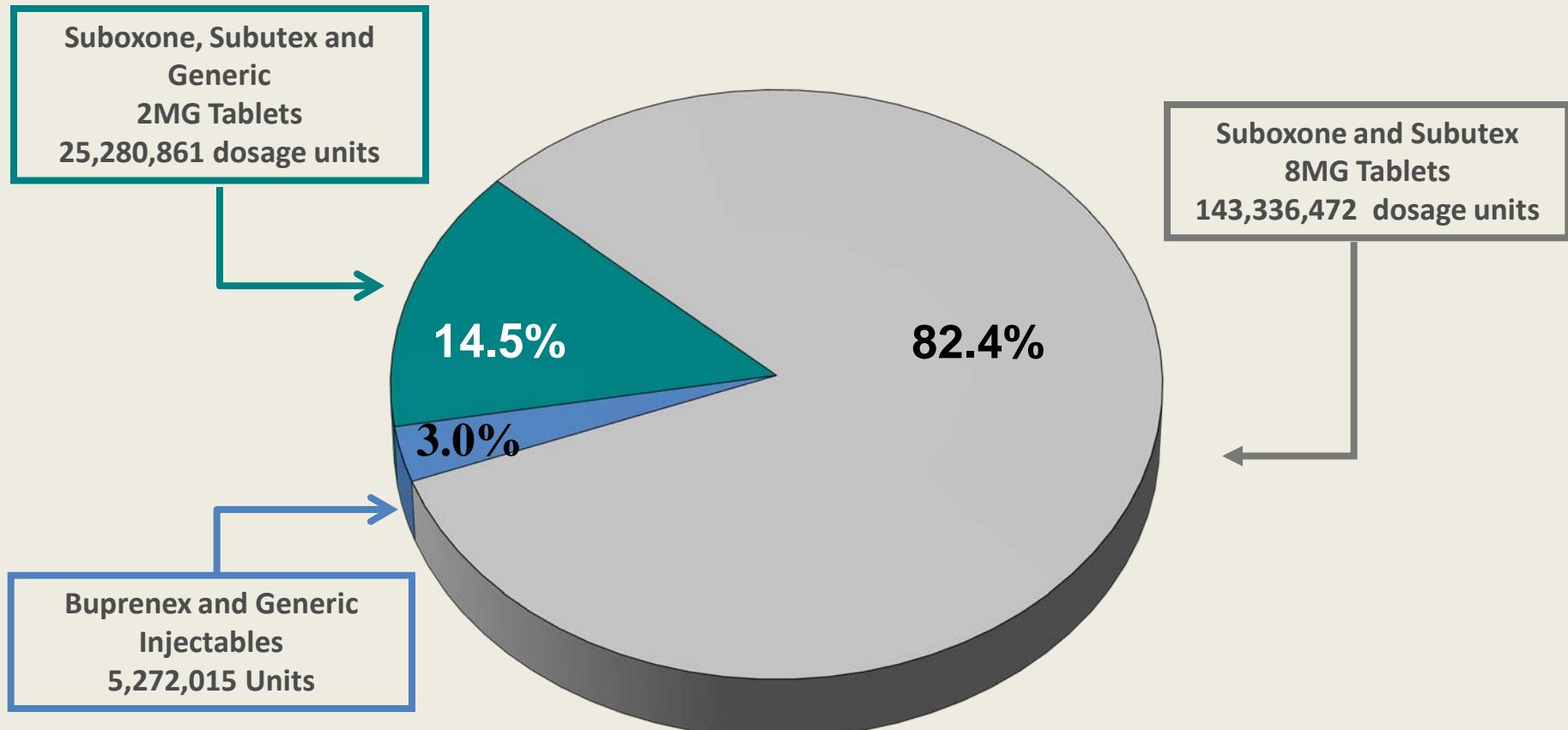
Date Prepared: 05/07/2010

Nationwide Distribution* of Buprenorphine to Retail Registrants by Formulation January - December, 2008



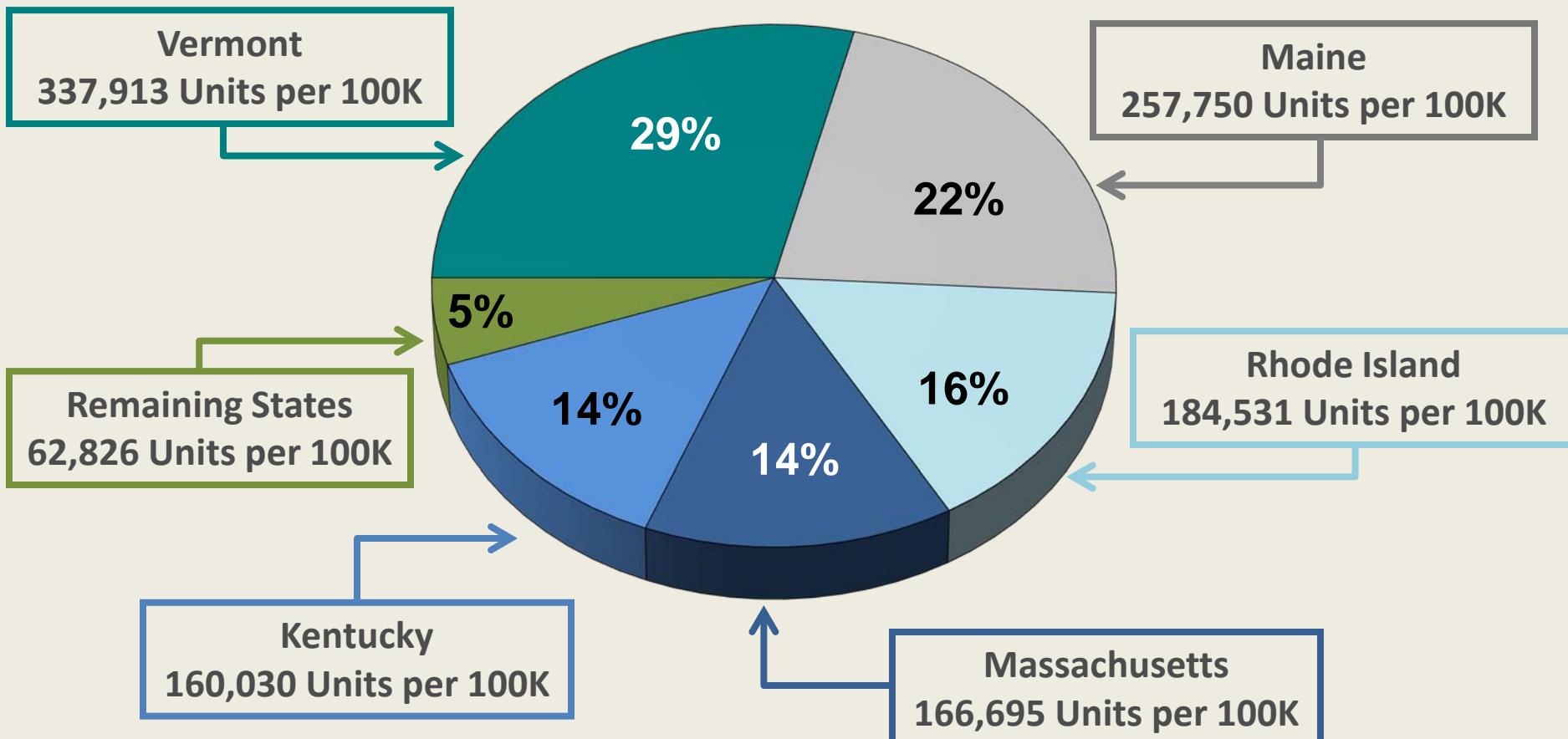
*Includes sales to Pharmacies, Hospitals, Practitioners, and NTP's

Nationwide Distribution of Buprenorphine to Retail Registrants by Formulation January - December, 2009

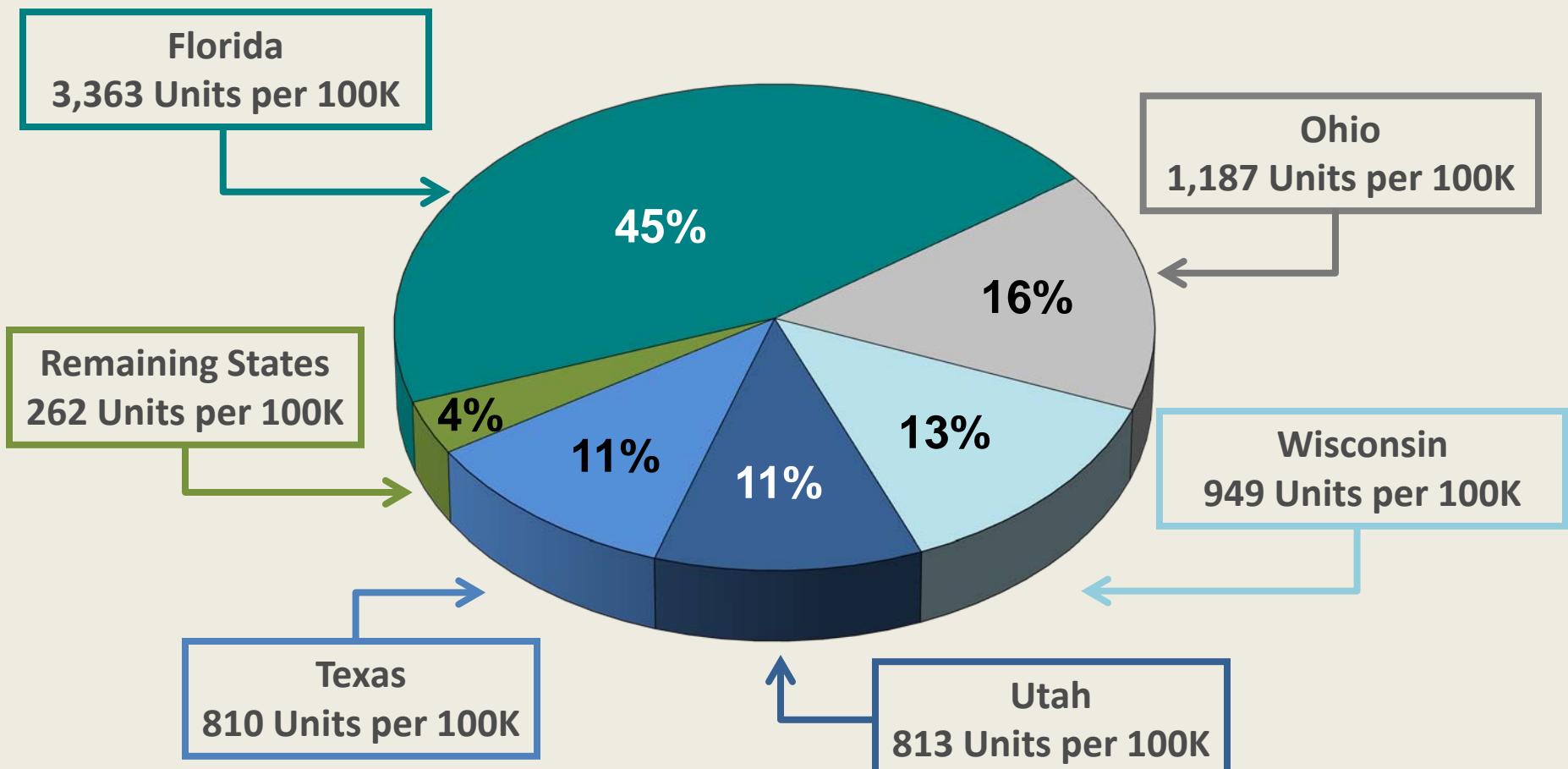


*Includes sales to Pharmacies, Hospitals, Practitioners, and NTP's

Top Five States Suboxone, Subutex and Generic Tablets Pharmacy Purchases per 100K Population January 1, 2009 – March 31, 2010

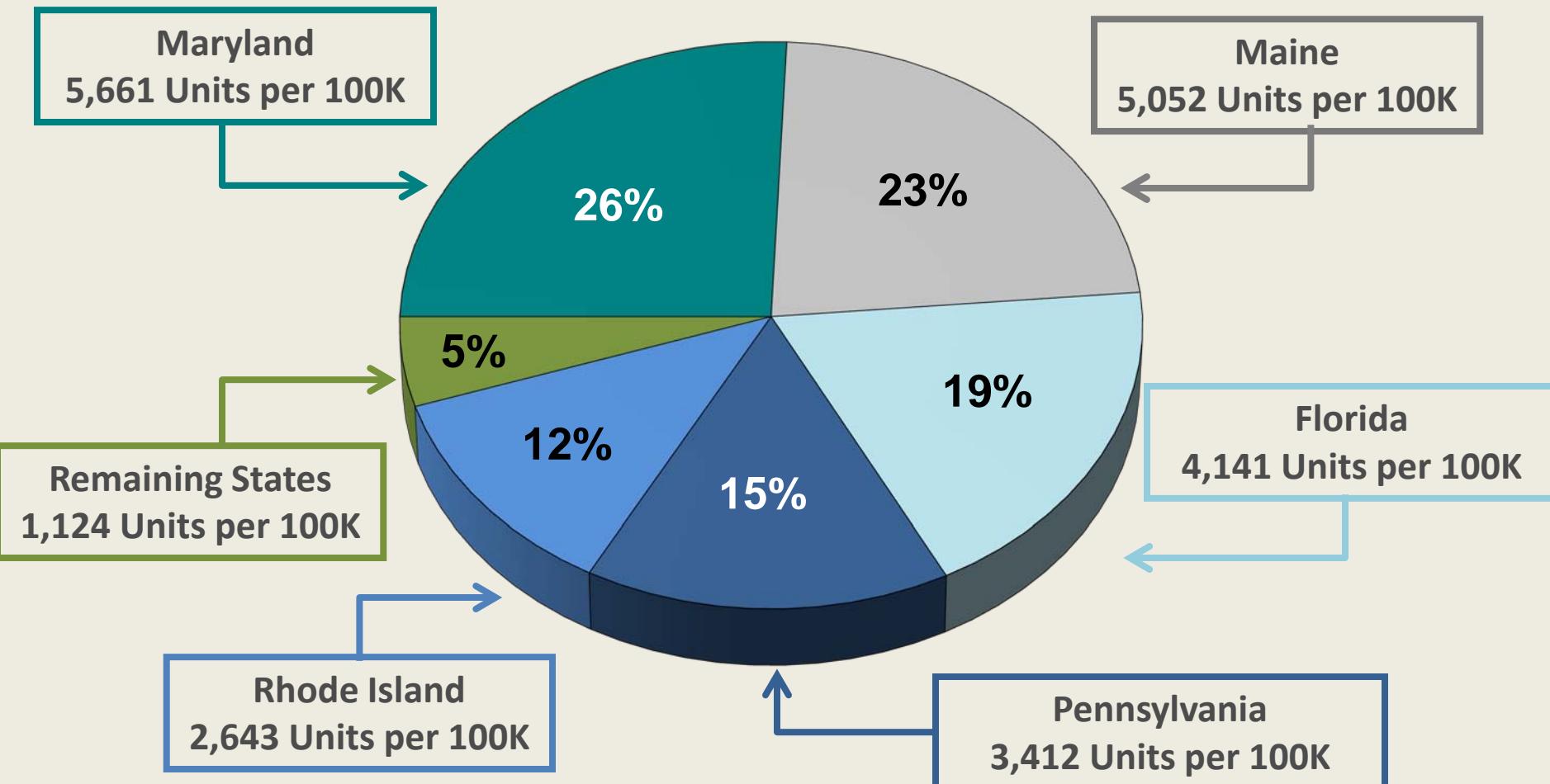


Top Five States Buprenex and Generic Injectables Pharmacy Purchases per 100K Population January 1, 2009 – March 31, 2010

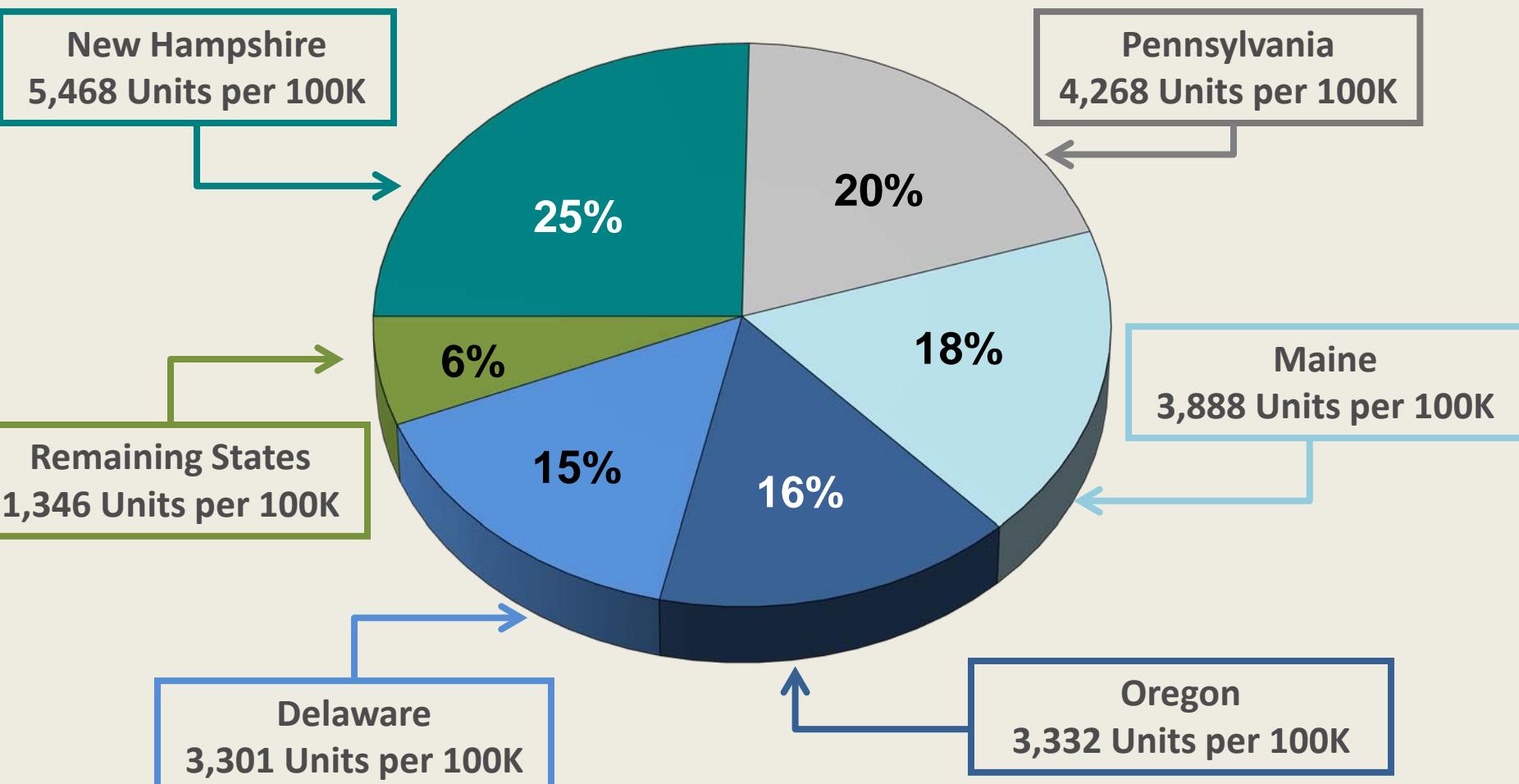


Top Five States Suboxone, Subutex and Generic Tablets Practitioner Purchases per 100K Population

January 1, 2009 – March 31, 2010



Top Five States Buprenex and Generic Injectables Practitioner Purchases per 100K Population January 1, 2009 – March 31, 2010



**Top 20 States in Rank Order
Nationwide Purchases of
Suboxone, Subutex and Generic Tablets
Per 100K Population
January 1 - December 31, 2009**

Rank	State	Population	Hospitals	NTP's	Pharmacies	Practitioners	Total Dosage Units	Total Dosage Units per 100,000 Population
1	VERMONT	613,933	42,480	3,450	1,660,950	5,460	1,712,340	278,913
2	MAINE	1,254,228	80,370	84,180	2,663,400	63,360	2,891,310	230,525
3	RHODE ISLAND	997,867	20,670	2,250	1,642,170	26,190	1,691,280	169,490
4	MASSACHUSETTS	6,191,180	716,278	7,470	9,154,680	11,070	9,889,498	159,735
5	KENTUCKY	3,983,524	162,510	12,300	5,213,250	57,060	5,445,120	136,691
6	WEST VIRGINIA	1,834,977	28,920	100,080	2,178,810	39,180	2,346,990	127,903
7	CONNECTICUT	3,284,638	106,380	55,110	3,903,390	48,240	4,113,120	125,223
8	UTAH	2,172,245	74,220	25,020	2,356,590	44,970	2,500,800	115,125
9	TENNESSEE	5,598,896	121,650	4,140	6,174,750	98,910	6,399,450	114,298
10	MARYLAND	5,256,181	225,240	45,480	5,233,230	258,570	5,762,520	109,633
11	PENNSYLVANIA	12,196,657	376,800	3,540	11,795,280	389,760	12,565,380	103,023
12	NEW HAMPSHIRE	1,215,820	6,750	0	1,203,450	19,260	1,229,460	101,122
13	NEW JERSEY	8,158,375	140,880	54,360	7,264,830	110,670	7,570,740	92,797
14	MISSISSIPPI	2,806,081	38,520	0	2,396,820	65,730	2,501,070	89,130
15	DELAWARE	762,928	42,330	24,120	598,290	5,070	669,810	87,795
16	LOUISIANA	4,419,367	37,590	13,320	3,786,960	420	3,838,290	86,852
17	ALABAMA	4,434,285	26,070	11,340	3,727,830	63,780	3,829,020	86,350
18	MICHIGAN	9,670,334	225,000	24,600	6,405,990	244,500	6,900,090	71,353
19	INDIANA	6,023,368	44,100	14,220	4,135,410	79,575	4,273,305	70,945
20	WASHINGTON	5,817,823	114,750	34,200	3,608,940	54,510	3,812,400	65,530

**Top 20 States in Rank Order
Nationwide Purchases of
Subutex, Suboxone and Generic Tablets
Per 100K Population
January 1 - March 31, 2010**

Rank	State	Population	Hospitals	NTP's	Pharmacies	Practitioners	Total Dosage Units	Total Dosage Units per 100,000 Population
1	VERMONT	613,933	14,850	1,260	413,610	90	429,810	70,009
2	MAINE	1,254,228	27,750	11,520	569,370	0	608,640	48,527
3	WEST VIRGINIA	1,834,977	13,560	29,160	548,280	90	591,090	32,212
4	KENTUCKY	3,983,524	32,250	3,600	1,161,570	0	1,197,420	30,059
5	UTAH	2,172,245	17,160	3,360	618,450	90	639,060	29,419
6	DELAWARE	762,928	13,800	5,580	178,710	150	198,240	25,984
7	TENNESSEE	5,598,896	39,930	1,980	1,399,170	60	1,441,140	25,740
8	MARYLAND	5,256,181	51,990	9,540	1,105,500	38,970	1,206,000	22,944
9	PENNSYLVANIA	12,196,657	113,310	840	2,559,450	26,400	2,700,000	22,137
10	MASSACHUSETTS	6,191,180	188,400	2,280	1,165,710	90	1,356,480	21,910
11	NEW HAMPSHIRE	1,215,820	1,440	0	260,790	0	262,230	21,568
12	RHODE ISLAND	997,867	6,030	600	199,200	180	206,010	20,645
13	CONNECTICUT	3,284,638	30,330	7,110	601,980	3,240	642,660	19,566
14	MISSISSIPPI	2,806,081	11,910	0	521,190	0	533,100	18,998
15	LOUISIANA	4,419,367	13,170	4,500	786,600	210	804,480	18,204
16	ALABAMA	4,434,285	5,820	5,940	787,470	0	799,230	18,024
17	NEW JERSEY	8,158,375	29,400	23,580	1,333,050	2,790	1,388,820	17,023
18	WASHINGTON	5,817,823	23,490	12,960	937,620	30	974,100	16,743
19	NEW MEXICO	1,839,278	76,020	900	229,860	60	306,840	16,683
20	MICHIGAN	9,670,334	69,930	7,590	1,359,900	10,620	1,448,040	14,974

**Top 20 States in Rank Order
Nationwide Purchases of
Buprenex and Generic Injectables per 100K Population
January 1 - December 31, 2009**

Rank	State	Population	Hospitals	NTP's	Pharmacies	Practitioners	Total Units	Units per 100,000 Population
1	NEW HAMPSHIRE	1,215,820	205	0	110	58,397	58,712	4,829
2	FLORIDA	15,123,712	41,731	0	424,560	226,768	693,059	4,583
3	MAINE	1,254,228	3,785	0	8,200	43,406	55,391	4,416
4	PENNSYLVANIA	12,196,657	11,445	0	49,060	463,595	524,100	4,297
5	MARYLAND	5,256,181	11,351	0	4,755	153,679	169,785	3,230
6	DELAWARE	762,928	1,565	0	605	21,330	23,500	3,080
7	OREGON	3,369,788	3,847	0	3,140	94,997	101,984	3,026
8	VIRGINIA	6,960,521	13,205	0	20,363	154,800	188,368	2,706
9	VERMONT	613,933	10	0	1,830	14,471	16,311	2,657
10	MASSACHUSETTS	6,191,180	30,720	0	27,650	101,079	159,449	2,575
11	OHIO	11,308,118	25,904	0	104,455	156,650	287,009	2,538
12	WEST VIRGINIA	1,834,977	24,920	0	2,895	18,470	46,285	2,522
13	IDAHO	1,325,236	1,815	0	5,845	24,409	32,069	2,420
14	WASHINGTON	5,817,823	3,905	0	4,586	130,012	138,503	2,381
15	DISTRICT OF COLUMBIA	527,376	6,590	0	1,285	4,480	12,355	2,343
16	COLORADO	4,126,972	2,649	0	14,050	76,501	93,200	2,258
17	CONNECTICUT	3,284,638	662	0	11,240	58,112	70,014	2,132
18	WISCONSIN	5,309,409	6,420	0	37,905	68,004	112,329	2,116
19	NEVADA	1,837,560	25	0	5,350	33,041	38,416	2,091
20	ALASKA	637,786	135	0	605	10,924	11,664	1,829

Source: ARCOS

Date Prepared: 05/07/2010

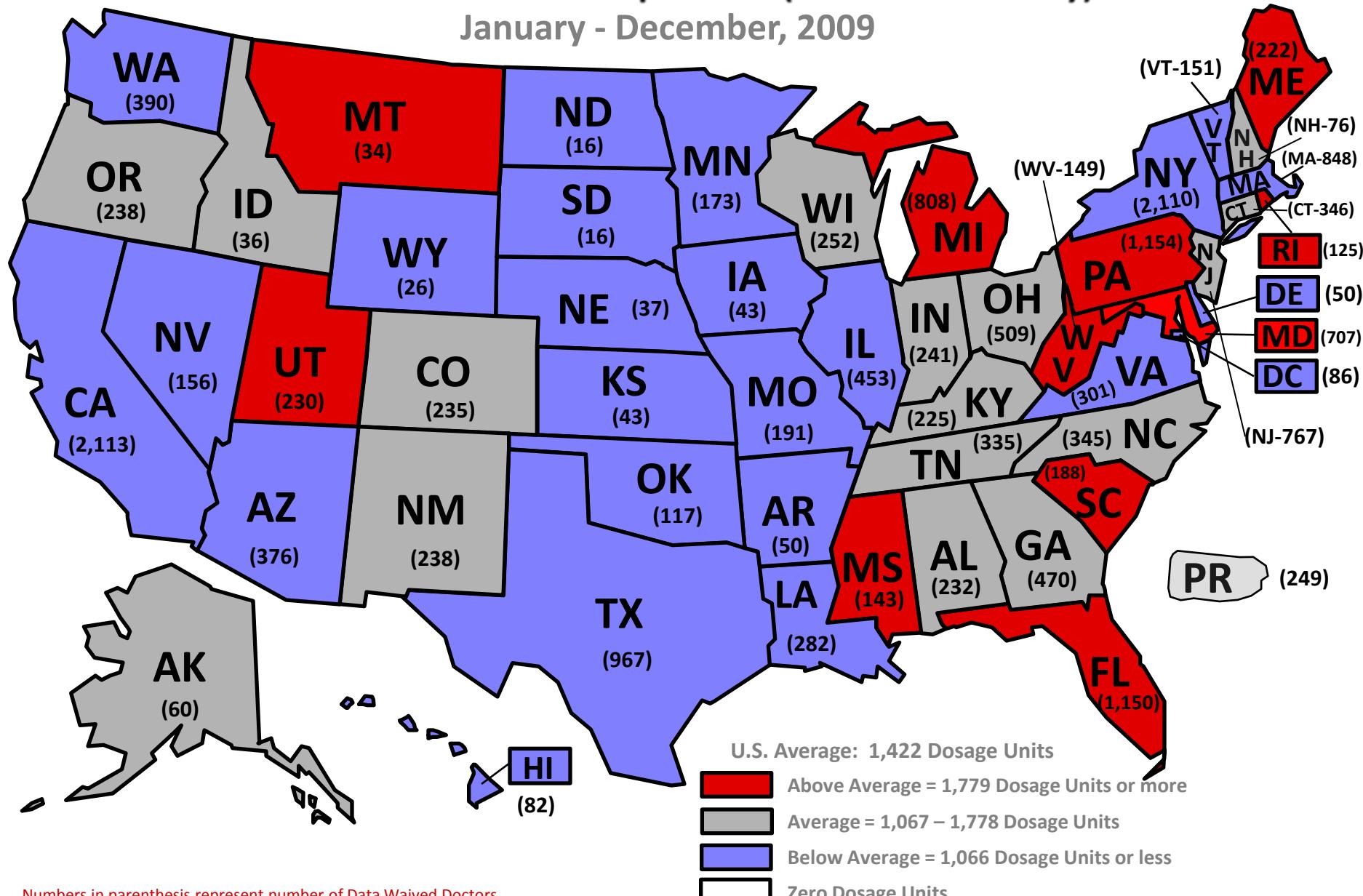
**Top 20 States in Rank Order
Nationwide Purchases of
Buprenex and Generic Injectables per 100K Population
January 1 - March 31, 2010**

Rank	State	Population	Hospitals	NTP's	Pharmacies	Practitioners	Total Units	Units per 100,000 Population
1	FLORIDA	15,123,712	13507	0	84124	39526	137,157	907
2	DELAWARE	762,928	1215	0	180	3853	5,248	688
3	NEW HAMPSHIRE	1,215,820	235	0	0	8079	8,314	684
4	MAINE	1,254,228	585	0	1910	5356	7,851	626
5	DISTRICT OF COLUMBIA	527,376	1093	0	620	1585	3,298	625
6	OHIO	11,308,118	7423	0	29767	29652	66,842	591
7	IDAHO	1,325,236	515	0	1775	5092	7,382	557
8	COLORADO	4,126,972	305	0	4135	18534	22,974	557
9	OREGON	3,369,788	320	0	785	17270	18,375	545
10	PENNSYLVANIA	12,196,657	1870	0	7050	56935	65,855	540
11	WISCONSIN	5,309,409	2147	0	12475	12503	27,125	511
12	WASHINGTON	5,817,823	1337	0	2095	26228	29,660	510
13	MASSACHUSETTS	6,191,180	5270	0	3435	22505	31,210	504
14	VERMONT	613,933	0	0	800	2258	3,058	498
15	WEST VIRGINIA	1,834,977	5575	0	464	2910	8,949	488
16	VIRGINIA	6,960,521	2419	0	3796	26670	32,885	472
17	MARYLAND	5,256,181	1933	0	1295	18630	21,858	416
18	UTAH	2,172,245	595	0	3530	4296	8,421	388
19	CONNECTICUT	3,284,638	215	0	785	11671	12,671	386
20	HAWAII	1,250,999	860	0	1210	2475	4,545	363

Nationwide Purchases of Subutex, Suboxone and Generic Tablets

Distribution Per 100K Population (Practitioners Only)

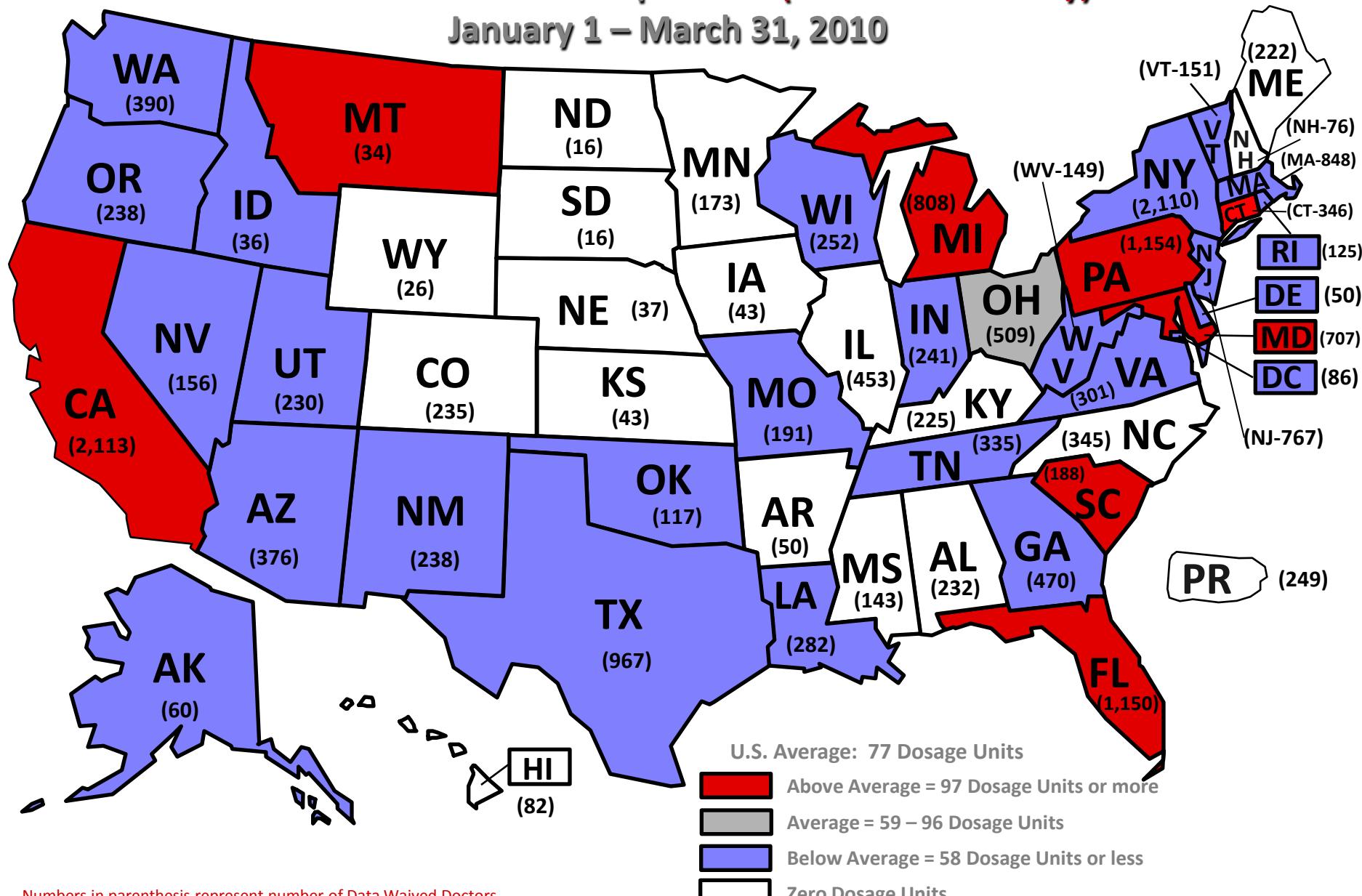
January - December, 2009



Nationwide Purchases of Subutex, Suboxone and Generic Tablets

Distribution Per 100K Population (Practitioners Only)

January 1 – March 31, 2010



Numbers in parenthesis represent number of Data Waived Doctors

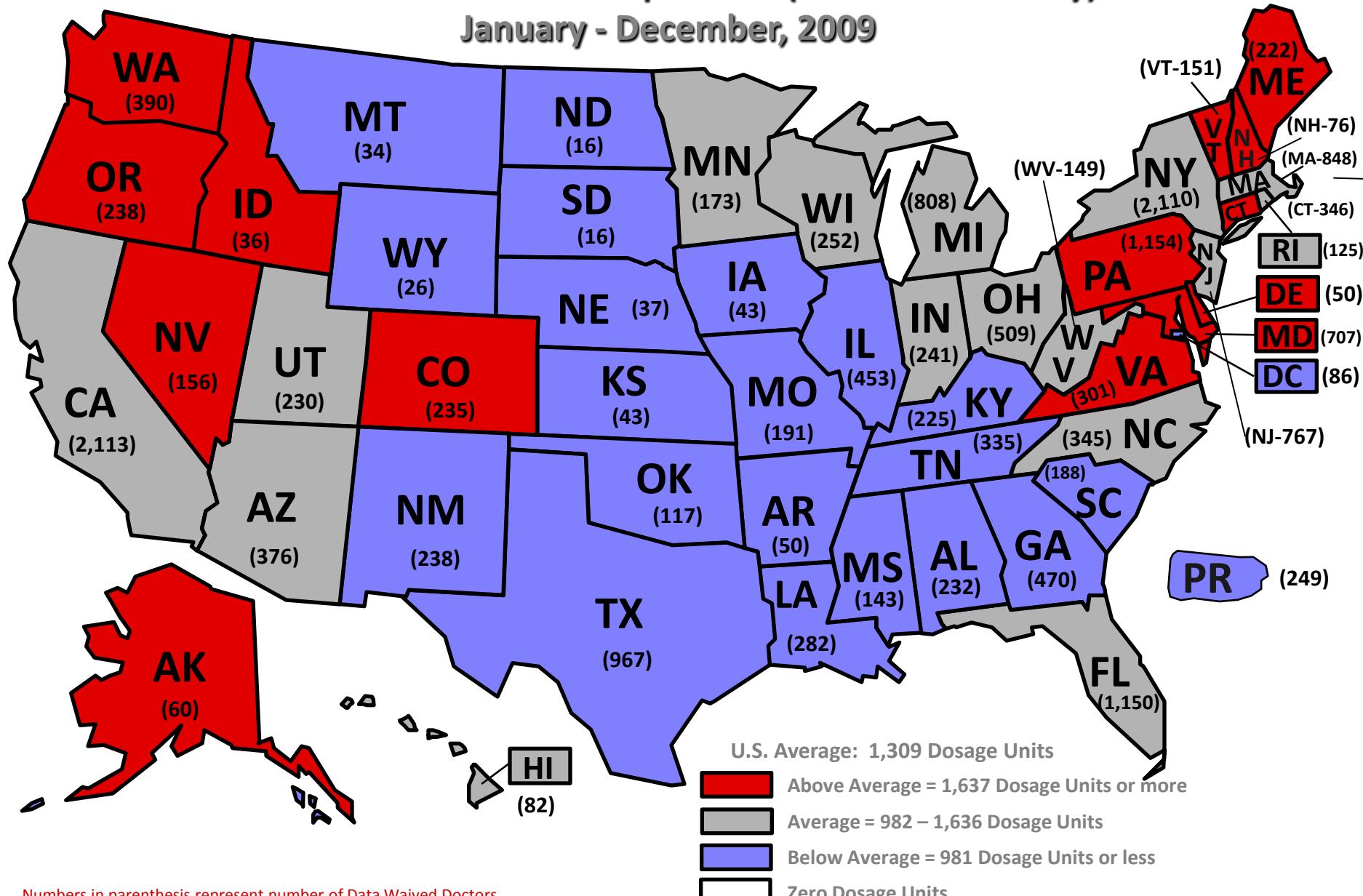
Source: ARCOS

Date Prepared: 05/07/2010

Nationwide Purchases of Buprenex and Generic Injectables

Distribution Per 100K Population (Practitioners Only)

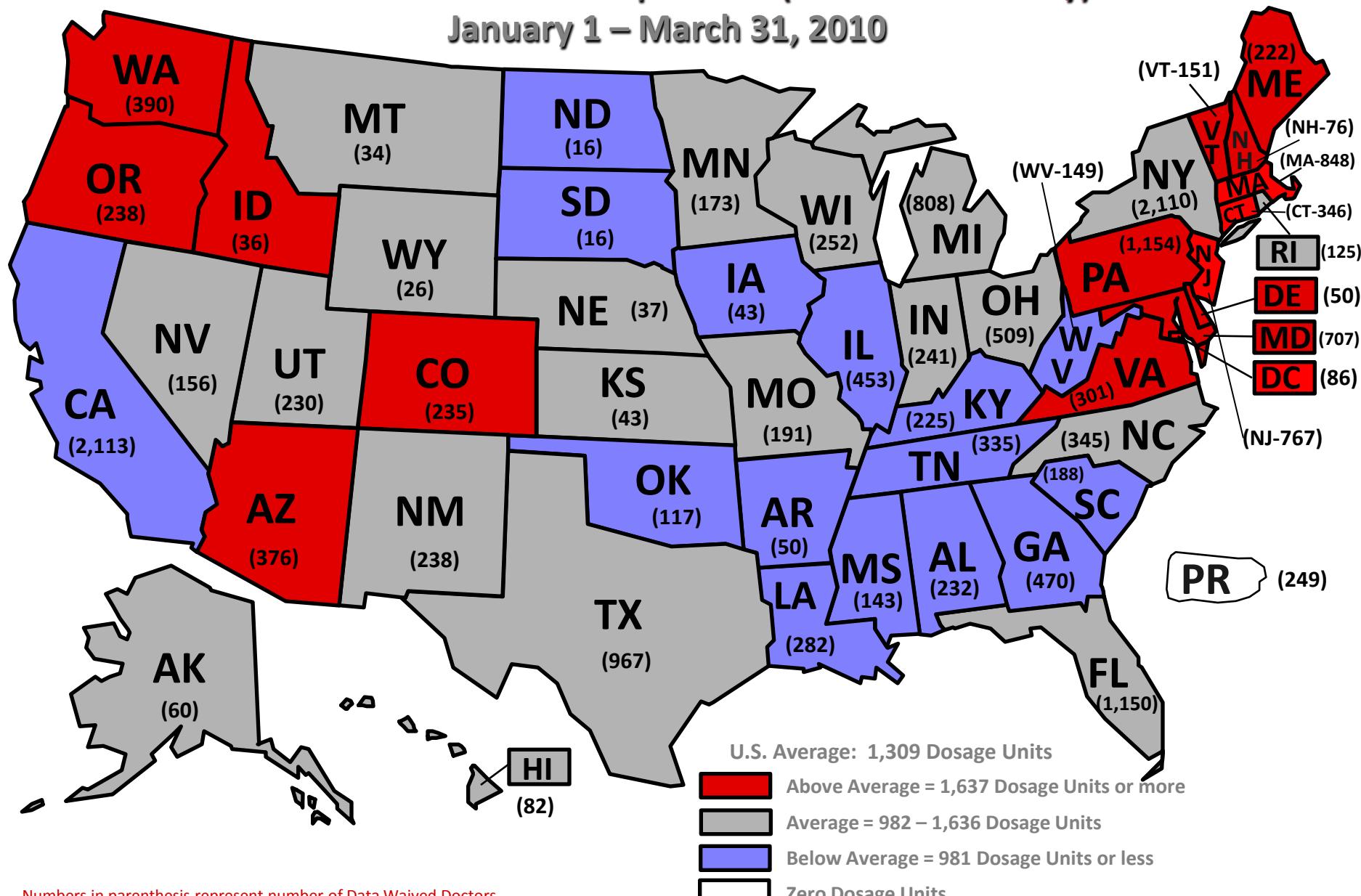
January - December, 2009



Nationwide Purchases of Buprenex and Generic Injectables

Distribution Per 100K Population (Practitioners Only)

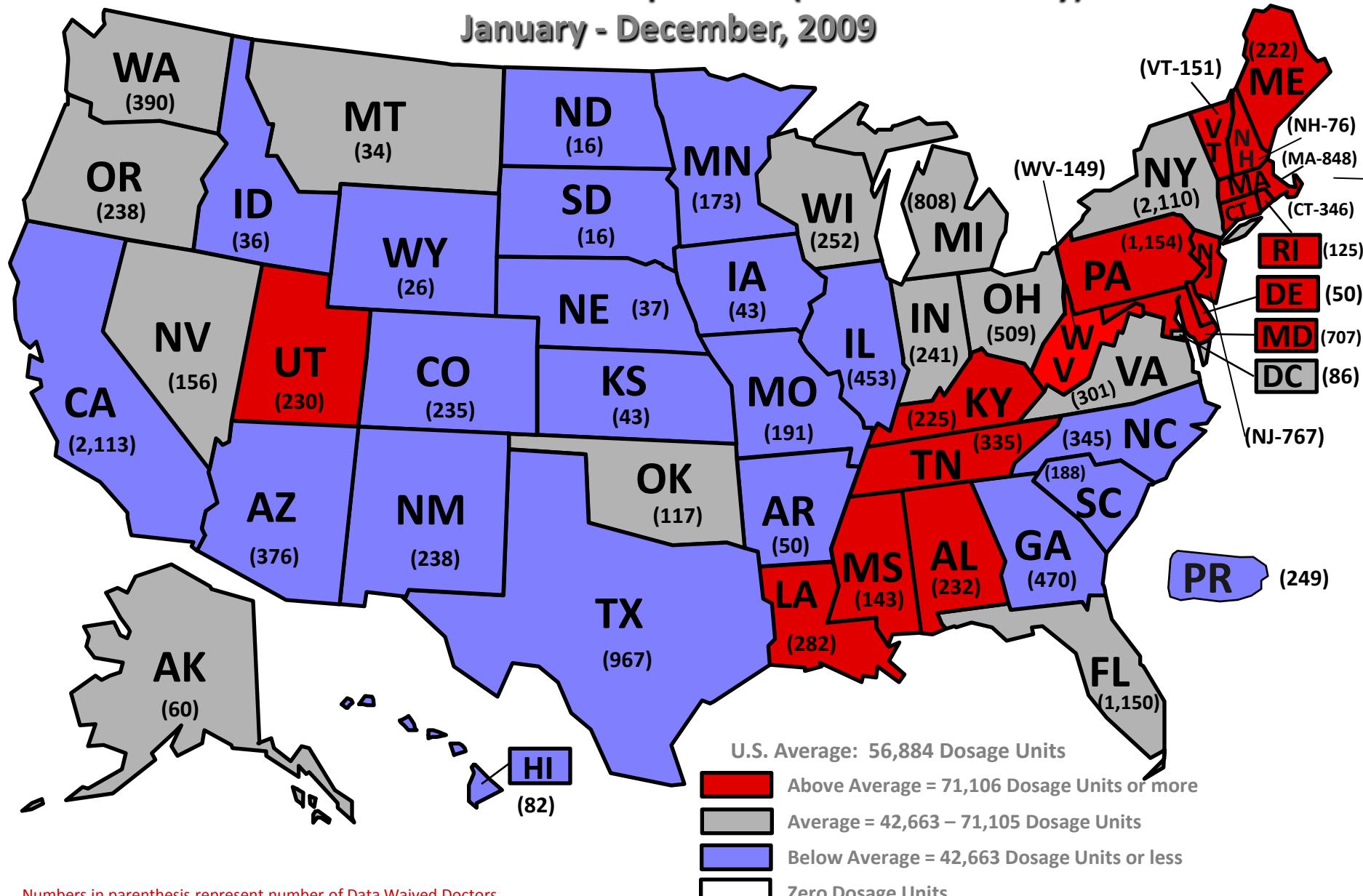
January 1 – March 31, 2010



Nationwide Purchases of Subutex, Suboxone and Generic Tablets

Distribution Per 100K Population (Pharmacies Only)

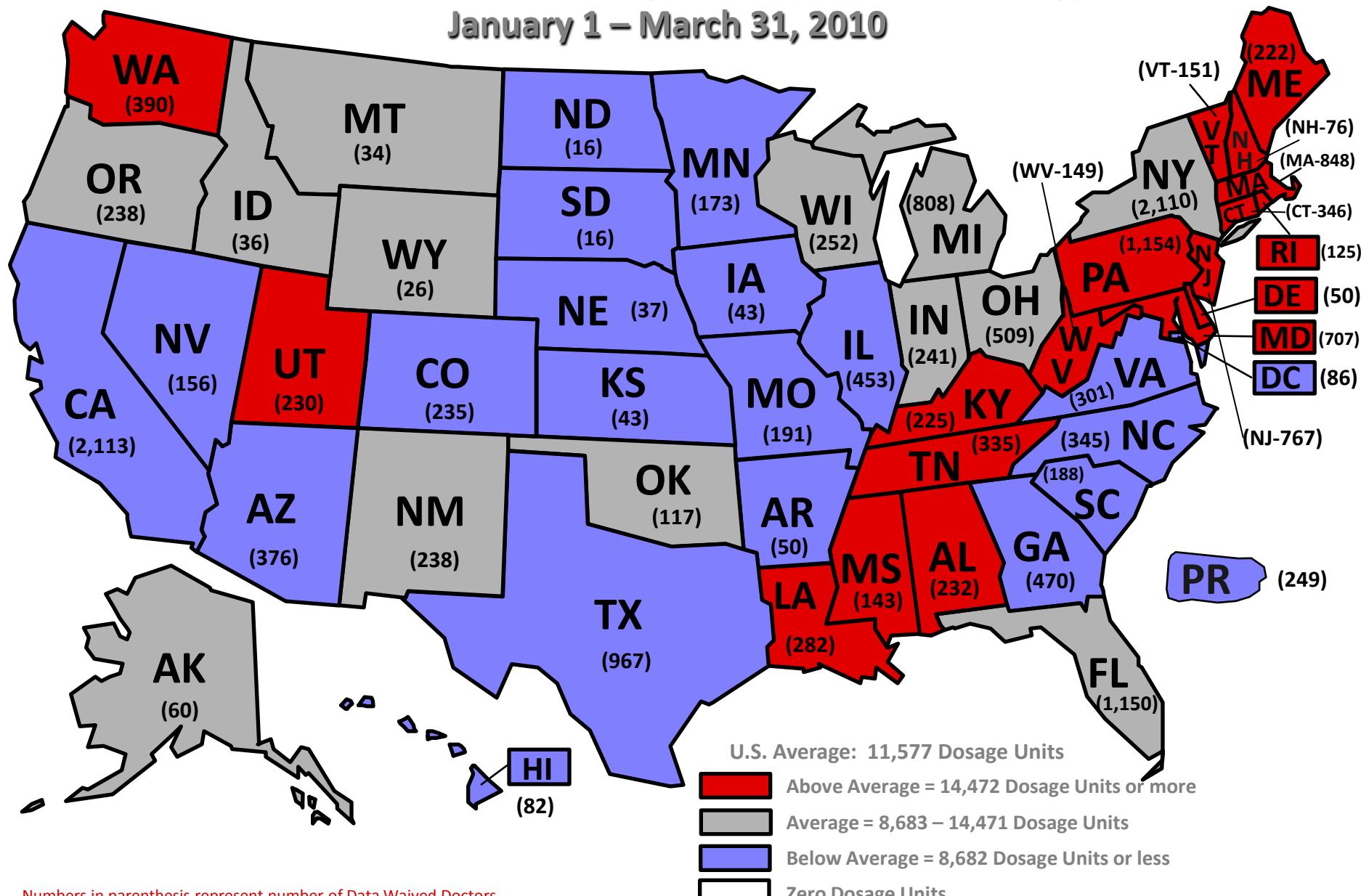
January - December, 2009



Nationwide Purchases of Subutex, Suboxone and Generic Tablets

Distribution Per 100K Population (Pharmacies Only)

January 1 – March 31, 2010

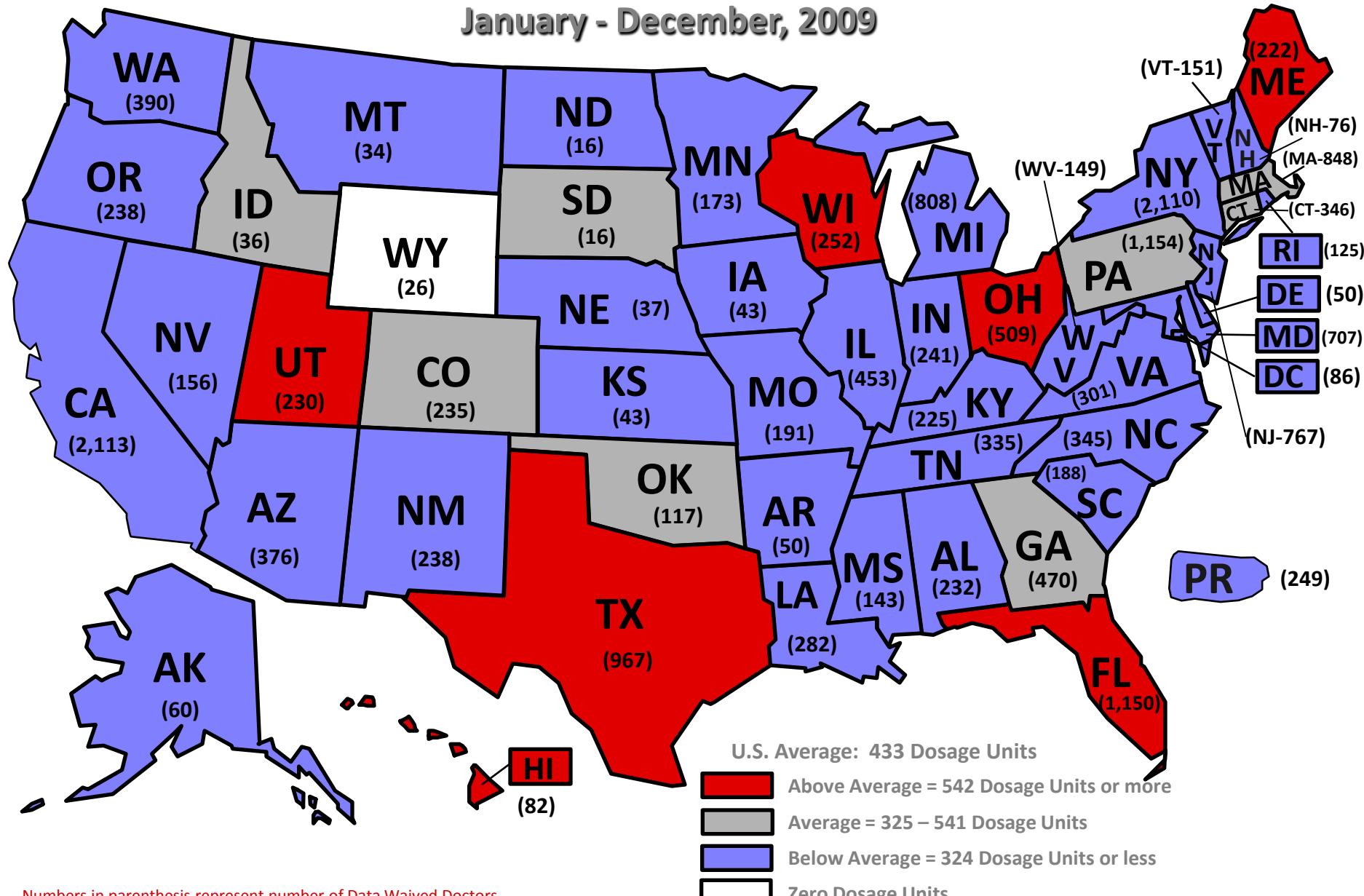


Numbers in parenthesis represent number of Data Waived Doctors

Nationwide Purchases of Buprenex and Generic Injectables

Distribution Per 100K Population (Pharmacies Only)

January - December, 2009



Nationwide Purchases of Buprenex and Generic Injectables

Distribution Per 100K Population (Pharmacies Only)

January 1 – March 31, 2010

