



Outpatient Drug Utilization Trends for Buprenorphine Years 2002-2009

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Outline

- **Objective**
 - Describe the outpatient use of buprenorphine in the pediatric and adult population for years 2002 – 2009
- **Data sources used**
 - SDI, Vector One®: National
 - SDI, Physician Drug and Diagnosis Audit
 - SDI, Vector One®: Total Patient Tracker
- **Results**
 - Overall trends in prescriptions
 - Prescribing specialty
 - Diagnoses associated with use
- **Limitations**
- **Summary and Conclusion**



Prescription-Level Data

Years 2002-2009

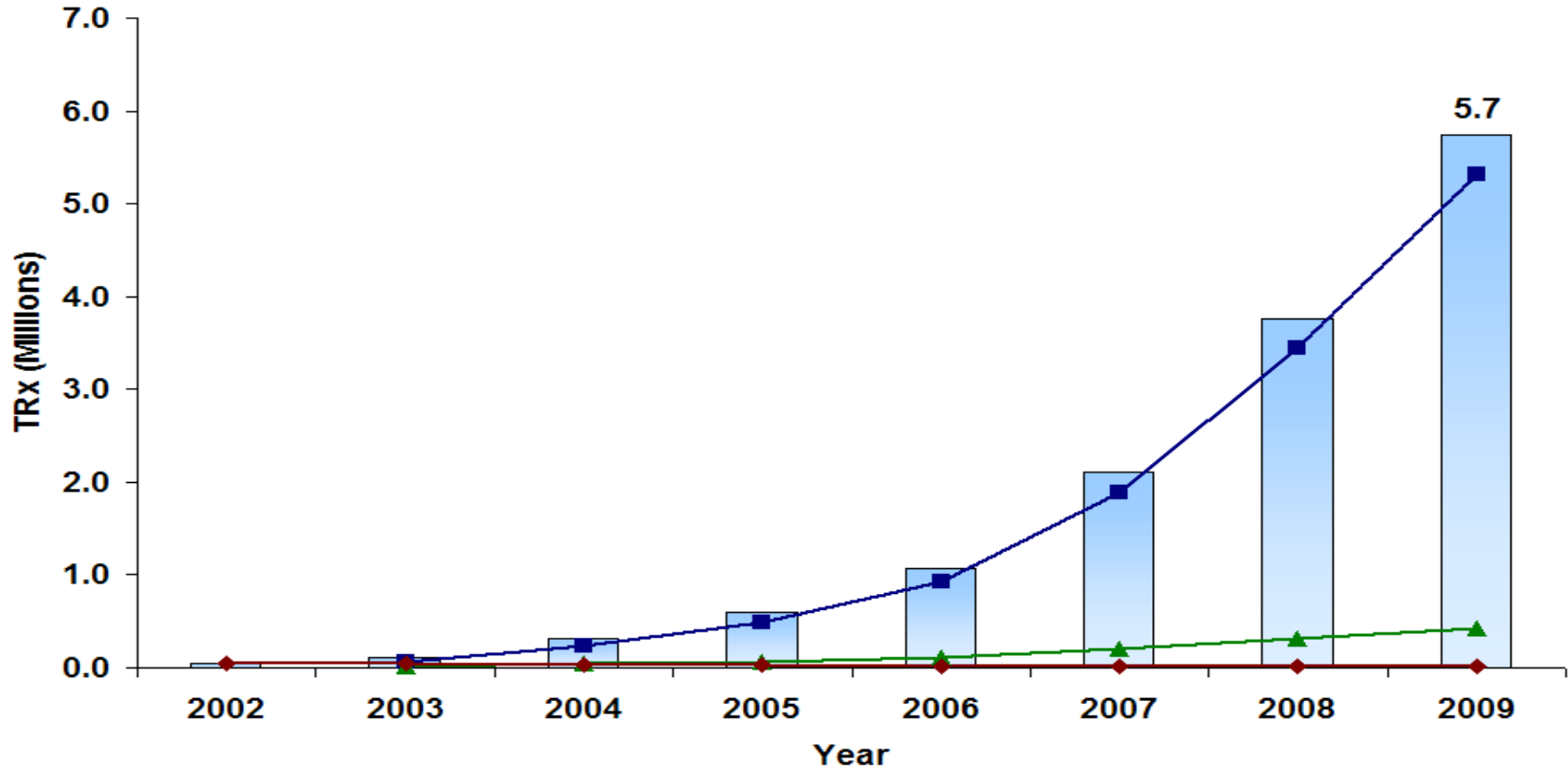
SDI Vector One®: National (VONA)

Surveillance Data, Inc.

Vector One[®]: National (VONA) & (TPT)

- SDI Vector One[®]: National (VONA) & Total Patient Tracker (TPT)
 - National-level projected prescription and patient-centric tracking service
 - 59,000 U.S. retail pharmacies
 - >2.0 billion prescription claims per year
 - >160 million unique patients
- The number of dispensed prescriptions is obtained from a sample of approximately 59,000 pharmacies throughout the U.S., accounting for nearly all retail pharmacies and represent nearly half of retail prescriptions dispensed nationwide.
- Retail pharmacies include:
 - national retail chains
 - mass merchandisers
 - pharmacy benefits managers and their data systems
 - provider groups

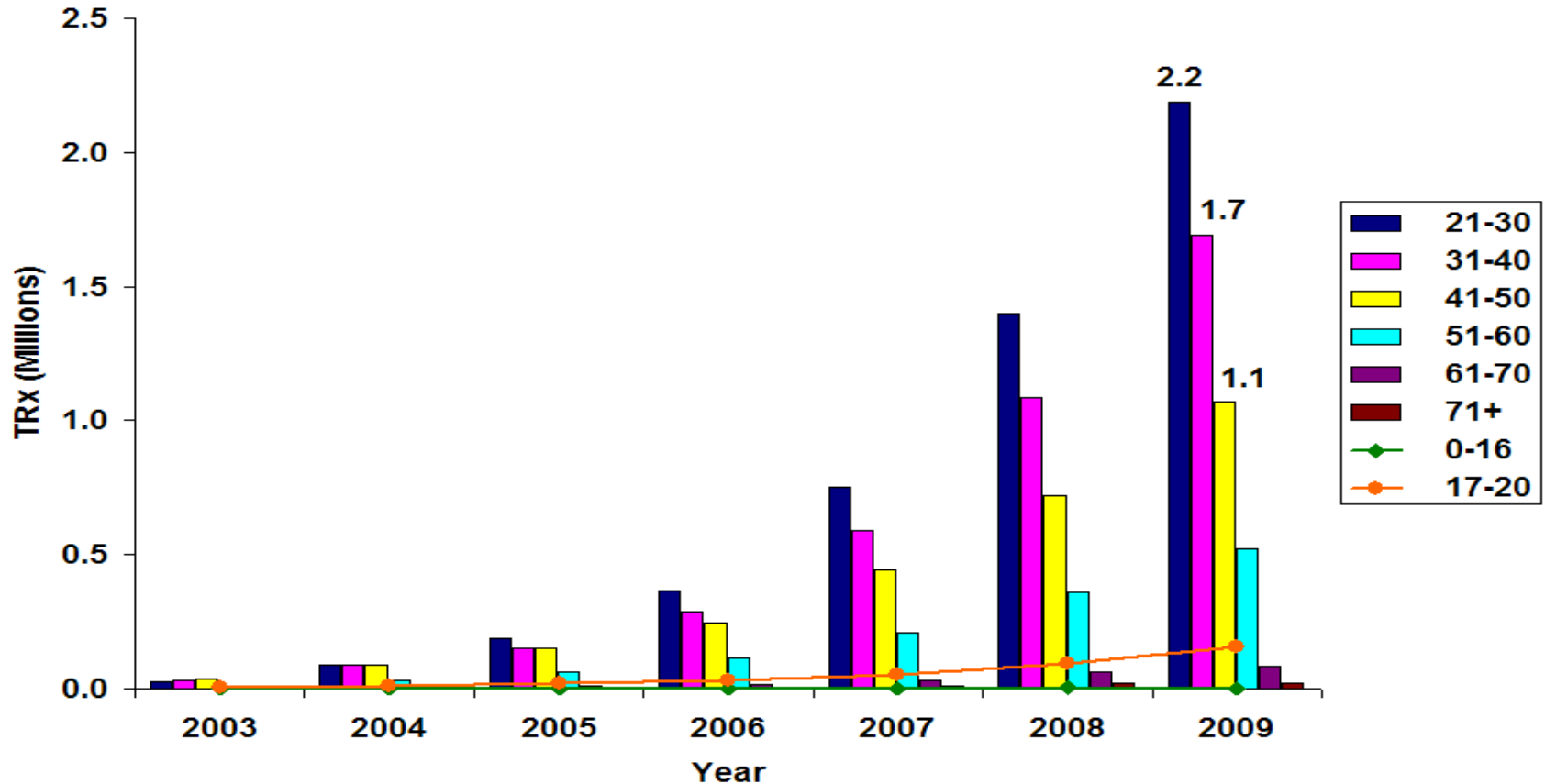
Total buprenorphine prescriptions in U.S. outpatient retail pharmacies, 2002-2009



Source: SDI Vector One®: National, Data Extracted March 2010

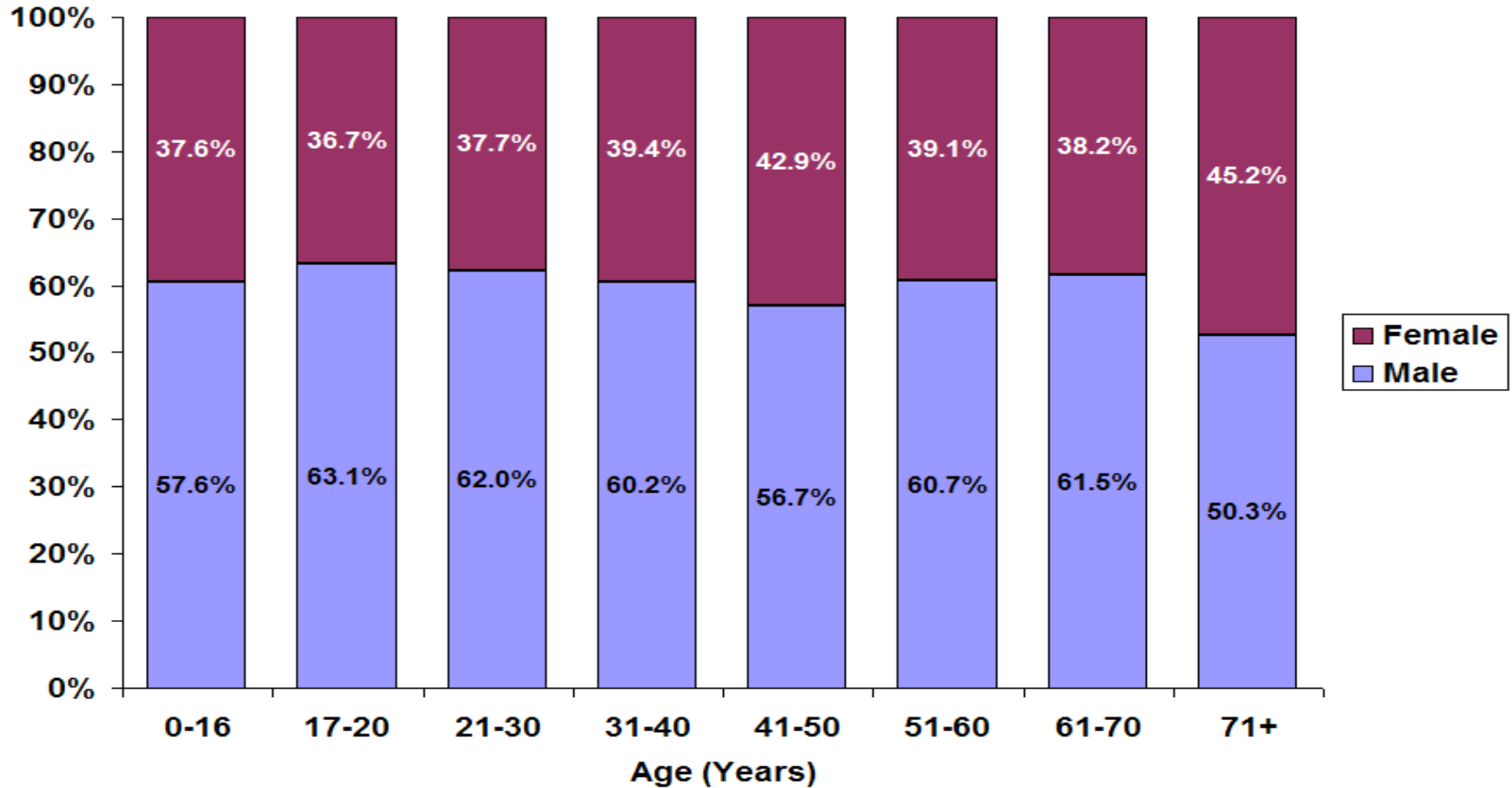


Total buprenorphine prescriptions by patient age in U.S. outpatient retail pharmacies, 2002-2009

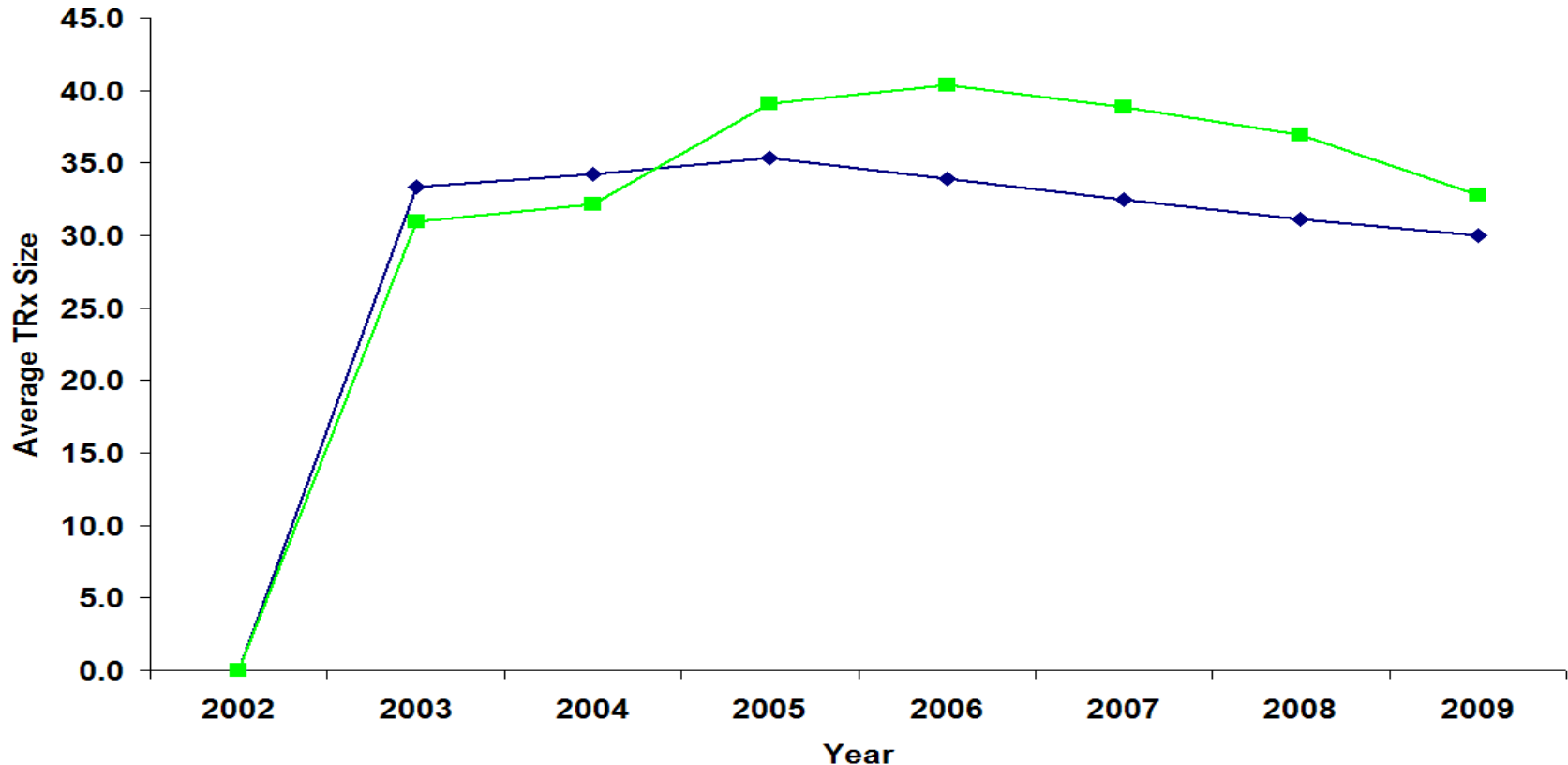


Source: SDI Vector One®: National, Data Extracted March 2010

Total buprenorphine prescriptions by sex in U.S. outpatient retail pharmacies, Year 2009



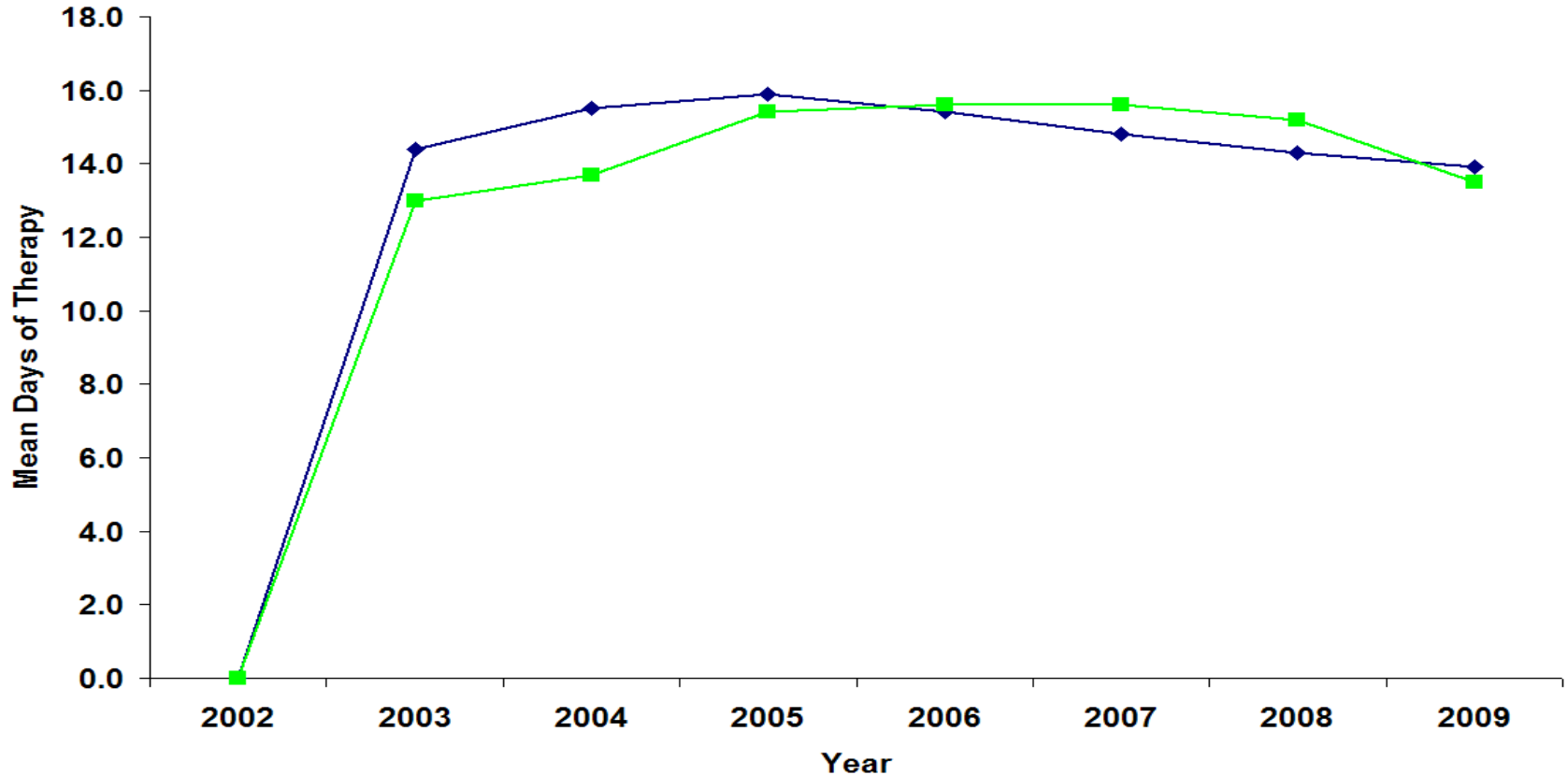
Total buprenorphine prescriptions by average TRx size in U.S. outpatient retail pharmacies, 2002-2009



Source: SDI Vector One®: National, Data Extracted March 2010

◆ Suboxone ■ Buprenorphine tablets

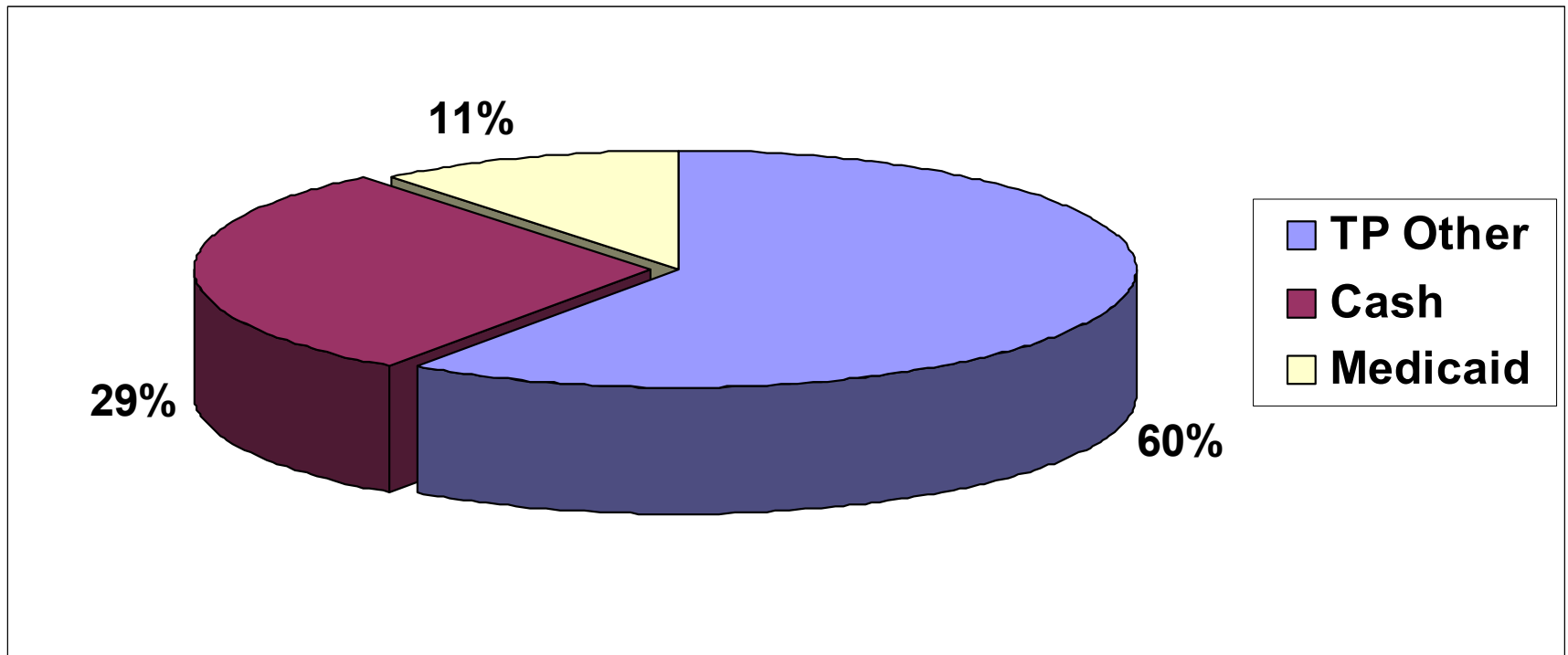
Total buprenorphine prescriptions by mean days of therapy in U.S. outpatient retail pharmacies, 2002-2009



Source: SDI Vector One®: National, Data Extracted March 2010

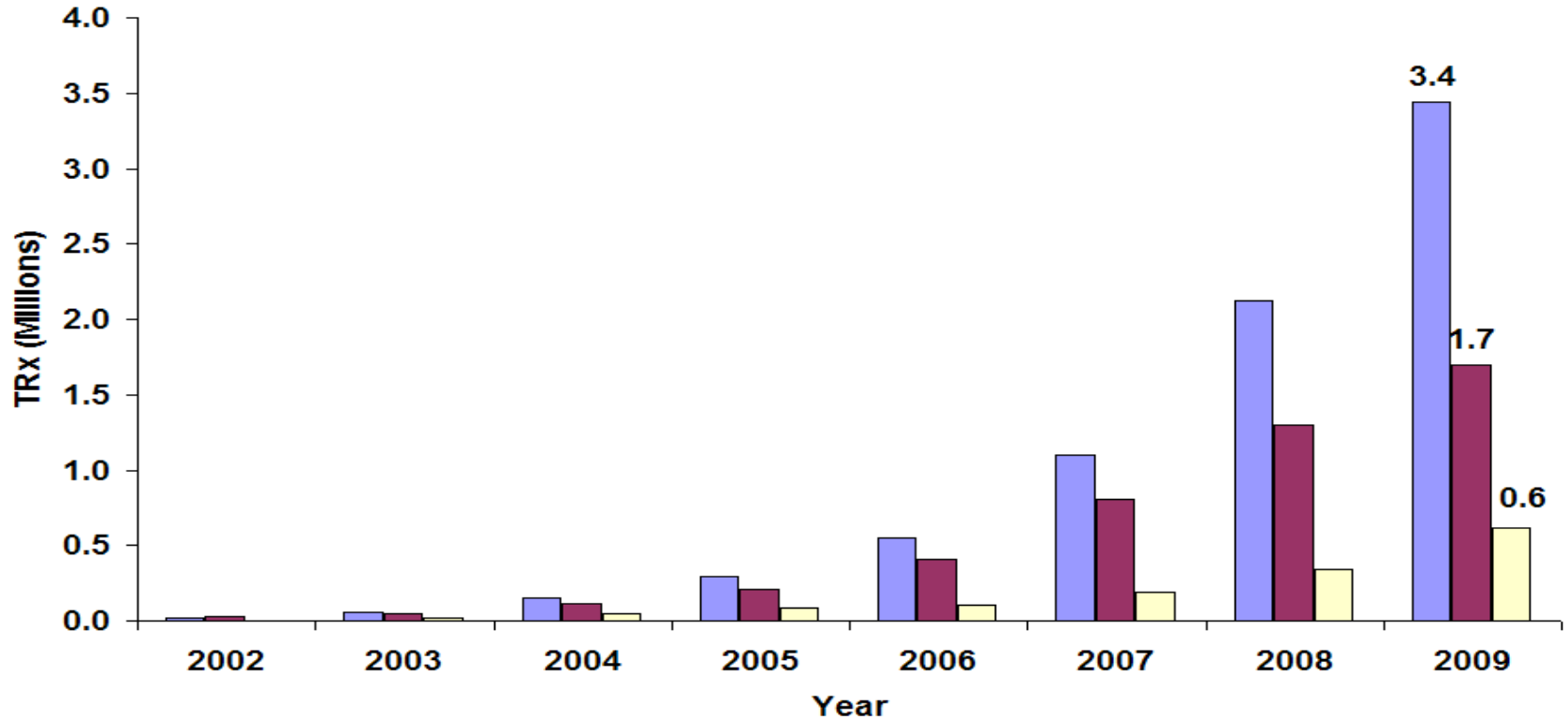
◆ Suboxone ■ Buprenorphine tablets

Total buprenorphine prescriptions by payment method Year 2009



Source: SDI Vector One®: National, Data Extracted March 2010

Total buprenorphine prescriptions by payment method in U.S. outpatient retail pharmacies, 2002-2009



Source: SDI Vector One®: National, Data Extracted March 2010.

■ TP OTHER
 ■ CASH
 ■ MEDICAID

Total buprenorphine patients in U.S. outpatient retail pharmacies, 2002-2009

Source: Total Patient Tracker, Data Extracted May 2010

Patient Age (Yr)	Year 2002	Year 2009	% Share 2009
0-16	26	2126	0.3%
17-20	68	27,306	4.3%
21-30	883	232,365	36.2%
31-40	1,740	175,395	27.3%
41-50	2,004	126,836	19.8%
51-60	788	70,430	11.0%
61-70	209	13,890	2.2%
71+	143	3,935	0.6%

Prescribing Specialties

- **Top specialties (Year 2009):**
 - General Practice/Family Medicine
 - Psychiatry
 - Internal Medicine

Others:

Anesthesiology

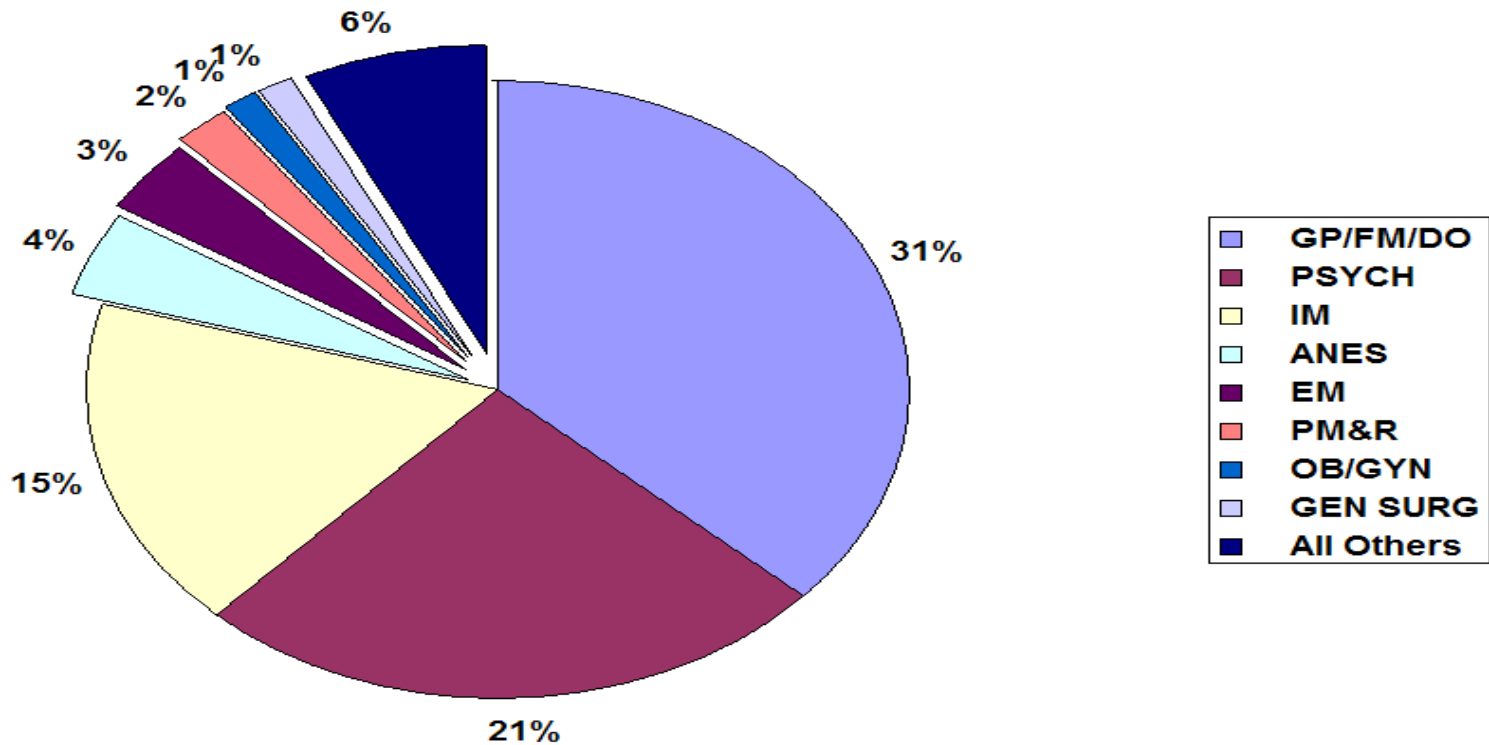
Emergency Medicine

Physical Medicine and Rehab

Ob/gyn

General Surgery

Top prescribers of buprenorphine Year 2009





Office-based physician survey data Years 2002-2009

SDI Physician Drug and Diagnosis Audit™ (PDDA™)

Office-based physician survey data SDI, Physician Drug and Diagnosis Audit™

- Monthly survey composed of approximately 3,200 office-based physicians that monitors disease states and the physician intended prescribing habits on a national-level
- Designed to provide descriptive information on the patterns and treatment of diseases encountered in office-based physician practices in the U.S.
- Represents 30 specialties across the United States
- Link drug use with diagnosis by ICD-9 code
- Concomitant use with other class of drug products to treat the same condition

3-Digit Diagnosis Codes associated with Use Cumulative Period: 2002-2009

Age 17+	Uses (000)	Share %
Total	5,231	100%
304 Drug Dependence	3,189	64%
305 Nondependent Drug Abuse	1,436	29%
292 Drug Psychoses	89	1.8%
338 Pain Nec	61	1.2%
All others	185	3.7%

4-Digit Diagnosis Codes associated with Use Cumulative Period: 2002-2009

Age 17+	Uses (000)	Share %
Total	5,231	100%
338.2 Chronic Pain Nos	40	0.8%
338.4 Chronic Pain Syndrome	21	0.4%
592.0 Calculus of Kidney	20	0.4%
346.9 Migraine Nos	19	0.4%
724.2 Lumbago	19	0.4%

Limitations

- Only describing outpatient prescription use
 - Use in outpatient clinics, long term care facilities, and hospitals not captured/ analyzed
- “Drug uses” to refer to mentions of a drug in association with a diagnosis during an office-based patient visit.
- ICD-9 codes for pain were below the acceptable count to estimate national trends. No mentions were recorded in pediatric patients (0-16 years).

Summary

- Dispensed prescriptions for buprenorphine increased from around 50,000 prescriptions in year 2002 to approximately 5.7 million prescriptions in year 2009
- General Practice/Family Medicine was the top prescribing specialty
- “Opioid Type Dependence” (ICD-9 304.0) was the top diagnosis code associated with the use of oral buprenorphine for patients age 17 years and greater.
- ICD-9 diagnosis codes for pain were captured by physician survey, however the extent of national use is unavailable.