

Abuse-Deterrent Formulation Opioid Prescribing in California, Florida, and Kentucky

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BACKGROUND

- Abuse-deterrent formulation (ADF) opioids are designed to deter abuse by known or expected routes (e.g. crushing to snort or dissolving to inject)
- The U.S. Food and Drug Administration (FDA) encourages ADF opioid development as a means to address the opioid epidemic
- There are five brand name ADF opioid products commercially available in the U.S.
- Use of ADF opioids within clinical practice is not well understood and may vary based upon patient- and policy-level factors

STUDY OBJECTIVE

To characterize prescribing of ADF opioids in 3 states with diverse opioid prescribing patterns

METHODS

Data Sources: Prescription Drug Monitoring Programs from California, Florida, and Kentucky

Analyses of ADF prescribing:

- Included patients ≥ 18 years with at least one prescription record for an ADF opioid in calendar year 2018
- Prescribing rates were calculated according to age, gender, and rurality and were standardized per 1,000 adults in the population and per 1,000 users of opioids, with comparisons expressed as rate ratios
- Rurality was classified at the county-level based on adjacency to a metro area
- ADF uptake was expressed as number of prescriptions and number of distinct ADF users and was evaluated by payer source
- Choropleth maps were used to visualize county-level ADF prescribing rates per 1,000 users of opioids

DISCLOSURE

This study is supported by funding from the U.S. Food and Drug Administration and the Bureau of Justice Assistance.

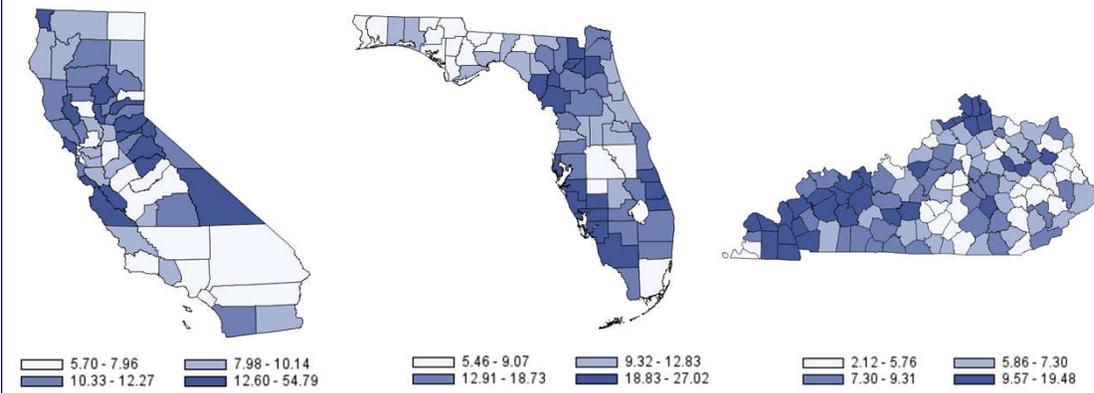
RESULTS

Table 1. Patient Demographics of Adult Users of ADF Opioids, 2018

State	California		Florida		Kentucky	
	ADF Use Rate (per 1,000 adults)	Rate Ratio (95% CI)	ADF Use Rate (per 1,000 adults)	Rate Ratio (95% CI)	ADF Use Rate (per 1,000 adults)	Rate Ratio (95% CI)
Overall	1.60		2.95		2.09	
Age (years)						
18-24	0.11	0.14 (0.13-0.16)	0.12	0.07 (0.06-0.08)	0.07	0.06 (0.04-0.09)
25-34	0.30	0.39 (0.37-0.42)	0.56	0.31 (0.29-0.33)	0.26	0.22 (0.19-0.27)
35-44	0.77	REF	1.82	REF	1.15	REF
45-54	1.59	2.08 (2.00-2.16)	3.55	1.95 (1.88-2.02)	2.71	2.35 (2.15-2.58)
55-64	3.12	4.07 (3.93-4.21)	5.87	3.22 (3.12-3.33)	4.25	3.69 (3.38-4.02)
65-74	3.83	5.00 (4.83-5.18)	4.71	2.58 (2.50-2.67)	3.79	3.29 (3.00-3.61)
≥ 75	2.98	3.89 (3.74-4.04)	3.08	1.69 (1.62-1.75)	2.23	1.93 (1.73-2.16)
Gender						
Male	1.50	REF	2.90	REF	2.13	REF
Female	1.70	1.13 (1.12-1.16)	2.99	1.03 (1.01-1.05)	2.05	0.96 (0.92-1.00)
Rurality						
Metro	1.52	REF	2.92	REF	1.89	REF
NMAM	3.17	2.09 (1.99-2.20)	3.73	1.28 (1.22-1.34)	2.05	1.08 (1.02-1.16)
NMNAM	2.43	1.60 (1.47-1.75)	3.45	1.18 (0.79-1.76)	2.28	1.21 (1.14-1.27)

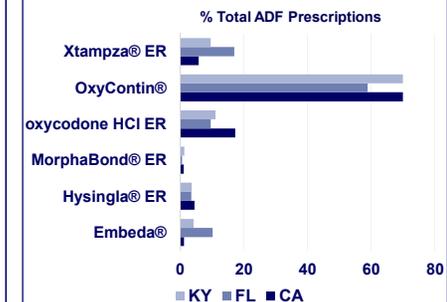
ADF: abuse-deterrent formulation; CI: confidence interval; NMAM: non-metro, adjacent to metro; NMNAM: non-metro, non-adjacent to metro
 Total adult population per state: 30,567,090 (CA); 17,070,244 (FL); 3,459,973 (KY)

Figure 1. County-level ADF Use Rates per 1,000 Adult Users of Opioids, 2018

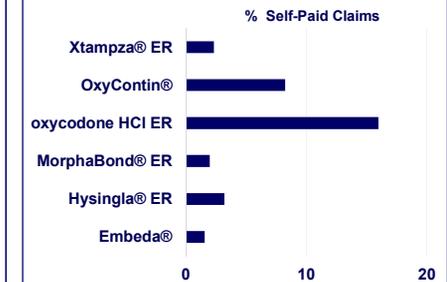


RESULTS

ADF Uptake by Drug, 2018



Self-Paid ADF Prescription Claims by Drug, 2018



PRINCIPAL FINDINGS

- Rates of ADF prescribing varied by age and were greatest among patients ages 55 to 74 years
- ADF prescribing rates appeared to vary by rurality both within and among states and were lowest in metro areas with higher rates clustered in some areas
- OxyContin® accounted for a majority of ADF prescriptions in all three states
- Most ADF prescriptions were paid via insurance; private pay accounted for less than 16% of total claims
- Further research is necessary to understand what factors may impact differences in ADF prescribing