

# The Diversion and Street Price of XTAMPZA® ER Relative to Other Prescription Opioids

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## Introduction

- Many individuals who abuse prescription opioids obtain these medications after they are diverted from legal distribution channels
- Both diversion frequency and price paid in illegal markets have been shown to be sensitive to interventions intended to reduce non-medical prescription opioid abuse
- XTAMPZA® ER is an abuse deterrent extended-release (ER) oxycodone product that uses DETERx® technology designed to discourage product manipulation for misuse and abuse by oral and non-oral routes
- This study assesses the extent of diversion and average street price paid for XTAMPZA ER relative to other prescription opioid analgesics.

## Methods

- Data collected between 2016Q3 through 2018Q4 were used from two Researched Abuse, Diversion and Addiction-Related Surveillance (RADARS®) System data sources:
  - **The Drug Diversion Program:** information on new cases of diversion reported by law enforcement and regulatory agencies in 49 states
  - **The StreetRx Program:** information on black market drug price information via anonymous submissions to the StreetRx.com website
- Prescriptions dispensed information was obtained from the IQVIA® (Danbury, CT) US-Based Longitudinal Patient Data.
- Cases involving XTAMPZA ER were compared to three groups:
  - **Other abuse deterrent formulation (ADF) ER opioids:** OXYCONTIN®, EMBEDA®, HYSINGLA® ER, ARYMO® ER, and MORPHABOND™ ER
  - **Non-ADF ER opioids:** ZOHYDRO® ER, MS CONTIN®, and other extended-release morphine products
  - **Immediate-release (IR) oxycodone**
- Price comparisons with IR oxycodone are made with single-ingredient IR oxycodone

## Disclosure

The RADARS® System is supported by subscriptions from pharmaceutical manufacturers, government and non-government agencies for surveillance, research and reporting services. RADARS System is the property of Denver Health and Hospital Authority, a political subdivision of the State of Colorado. Denver Health retains exclusive ownership of all data, databases and systems. Subscribers do not participate in data collection nor do they have access to the raw data. This research was sponsored by Collegium Pharmaceutical.

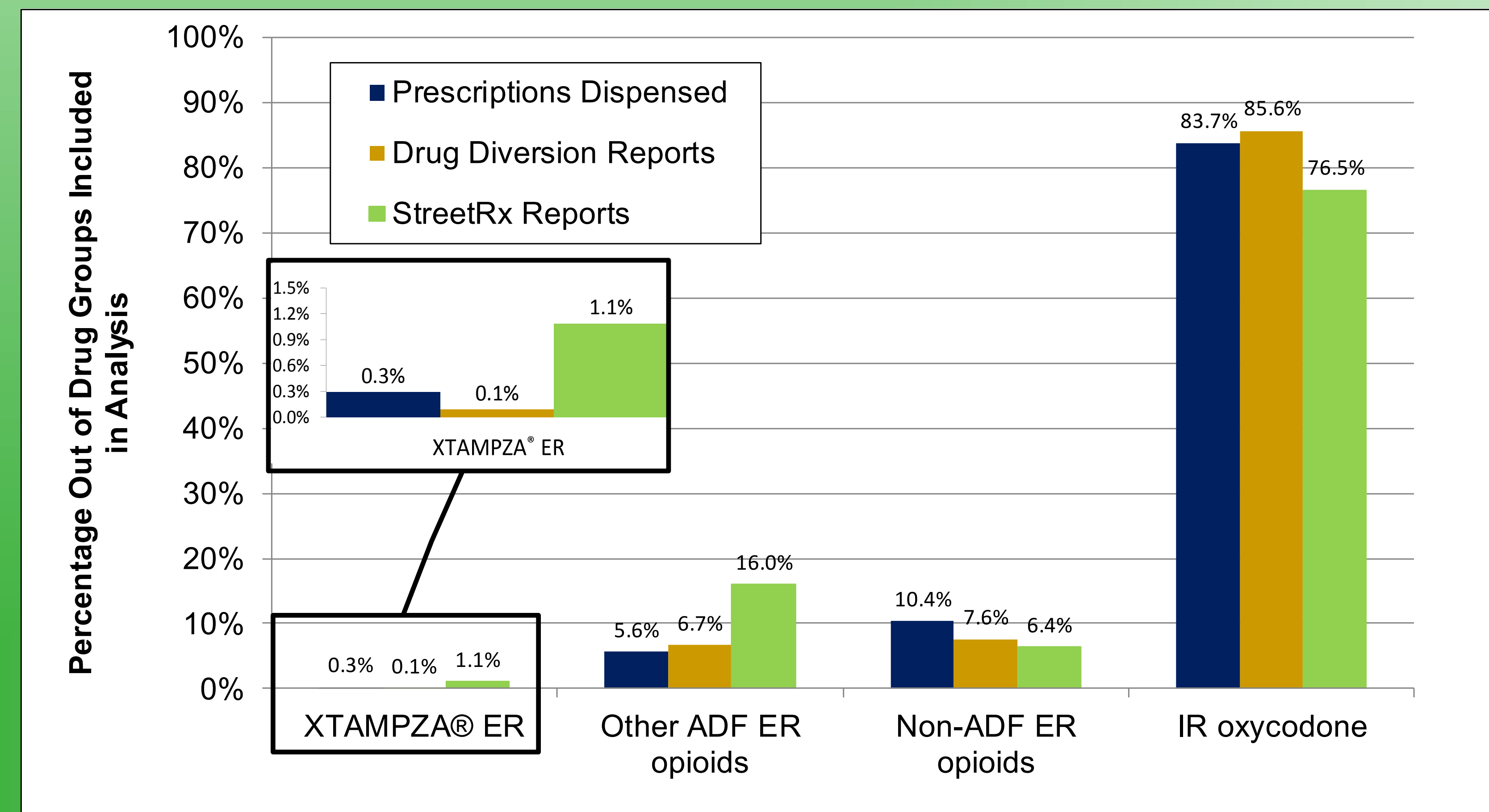
## Results

**Table 1. Prescriptions dispensed by drug group, 2016Q3-2018Q4**

Product Name	# of Prescriptions	Percentage of Group
XTAMPZA® ER	394,472	100%
Other ADF ER Opioid Products		
OXYCONTIN®	6,732,385	75.8%
Non-branded ER oxycodone	1,243,662	14.0%
HYSINGLA® ER	512,544	5.8%
EMBEDA®	337,866	3.8%
MORPHABOND® ER	36,806	0.4%
ARYMO® ER	22,639	0.3%
Non-ADF ER Opioid Products		
Non-branded ER morphine	13,749,750	98.0%
ZOHYDRO ER	197,821	1.4%
KADIAN	59,584	0.4%
MS CONTIN	17,398	0.1%
Other products	12,377	0.1%

XTAMPZA ER is a registered trademark of Collegium Pharmaceutical. OXYCONTIN and HYSINGLA ER are registered trademarks of Purdue Pharma. EMBEDA is a registered trademark of Pfizer, Inc.. MORPHABOND ER is a registered trademark of Daiichi Sankyo, Inc. ARYMO ER is a registered trademark of Egalet US, Inc.

**Figure 1. Distribution of prescriptions dispensed, diversion cases, and street price reports by drug group, 2016Q3-2018Q4**



**Table 2. Unadjusted geometric mean price per mg by drug group, RADARS System StreetRx Program, 2016Q3-2018Q4**

Drug Group	N	Unadjusted Geometric Mean Price per mg (95% CI)
Single-ingredient IR oxycodone	1,412	\$0.76 (\$0.73-\$0.80)
XTAMPZA® ER	155	\$0.56 (\$0.48 -\$0.65)
Other ADF ER opioids	2,284	\$0.48 (\$0.46-\$0.50)
Non-ADF ER opioids	912	\$0.33 (\$0.31-\$0.36)

## Results (cont.)

### Drug Diversion Program - Cases

There were 4,430 cases involving drug groups of interest

- 4 (0.1%) involved XTAMPZA ER
- 295 (6.7%) involved other ADF ER opioids
- 337 (7.6%) involved non-ADF ER opioids
- 3,794 (85.6%) involved IR oxycodone

### StreetRx Program – Reports

There were 14,284 purchase price reports of drug groups of interest

- 155 (1.1%) for XTAMPZA ER
- 2,284 (16.0%) for other ADF ER opioids
- 912 (6.4%) for non-ADF ER opioids
- 10,933 (76.5%) involved IR oxycodone, 1,412 were for single-ingredient IR oxycodone
- XTAMPZA ER unadjusted geometric mean price per mg was:
  - lower than single-ingredient IR oxycodone
  - higher than non-ADF ER opioids
  - higher than other ADF ER opioids, but with overlap of 95% confidence intervals

## Conclusions

- Diversion of XTAMPZA ER was infrequent relative to comparators
- Findings indicate that the street price of XTAMPZA ER is lower than single-ingredient IR oxycodone products among individuals who abuse opioids
- XTAMPZA ER and other ADF ER opioids had a greater price per mg in illegal purchases than non-ADF ER opioids

## Limitations

- The StreetRx analysis does not adjust for potential confounders; dosage strength, morphine milligram equivalency, active pharmaceutical ingredient, and time are known to be associated with differences in street prices per mg
- StreetRx data rely on respondent self-report and may be subject to product misidentification and recall biases
- The Drug Diversion Program is not a representative sample of law enforcement agencies
- The analysis in this poster is descriptive through 2018Q4, results may change as additional quarters of data become available