

Unintentional Exposures to Buprenorphine/Naloxone Tablets and Oral Film Among Children Less Than Six Years Old October 2010 Through June 2015

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Background

- Previous findings, over the period of 2010-2013, demonstrate that among children aged less than 6 years unintentional exposures to buprenorphine/naloxone oral film are less frequent than exposures to buprenorphine/naloxone tablets after adjustment for drug availability.
- However, since these studies were conducted significant changes in the buprenorphine/naloxone tablet market have occurred.
- We examined rates of unintentional exposures to buprenorphine/naloxone film and 2 comparators reported to poison centers in children aged less than 6 years, adjusting for drug availability.

Methods

- Pediatric (less than 6 years) unintentional general exposures to buprenorphine/naloxone oral film, buprenorphine/naloxone tablets, and single-entity buprenorphine tablets in the Researched Abuse, Diversion, and Addiction-Related Surveillance (RADARS®) System Poison Center Program from October 2010 to June 2015 were analyzed.
- The number of exposures in each drug group and quarter were adjusted for drug availability using number of unique recipients of dispensed drug (URDD), scaled per 10,000 URDD.
- Poisson regression analysis with drug specific dispersion parameters was used to compare differences in intercepts (expected rate in 2015Q2) and slopes (quarterly changes over time).

Results

- The expected buprenorphine/naloxone film rate in 2015Q2 (1.11/10,000 URDD, 95% CI: 0.94-1.30) was significantly less ($p < 0.001$) than the expected rates in 2015Q2 for single-entity buprenorphine tablets (2.68/10,000 URDD, 95% CI: 2.28-3.14) and buprenorphine/naloxone tablets (3.77/10,000 URDD, 95% CI: 3.13-4.53) (Table 1).
- On average, the rate for buprenorphine/naloxone film increased by 2% ($p = 0.043$) each quarter, the rate for single-entity buprenorphine tablet decreased 1% ($p = 0.199$) per quarter, and the rate for buprenorphine/naloxone tablets decreased by 4% ($p < 0.001$) each quarter.
- The change in the buprenorphine/naloxone film rate was significantly greater than the change in the single-entity buprenorphine tablet ($p = 0.018$) and buprenorphine/naloxone tablet rates ($p < 0.001$).

Conclusions

- Consistent with previous research, unintentional exposures to buprenorphine/naloxone oral film are less frequent than exposures to buprenorphine/naloxone tablets after adjustment for drug availability..

Figure 1. Unintentional Exposures for Children Less than Six Years per 10,000 URDD

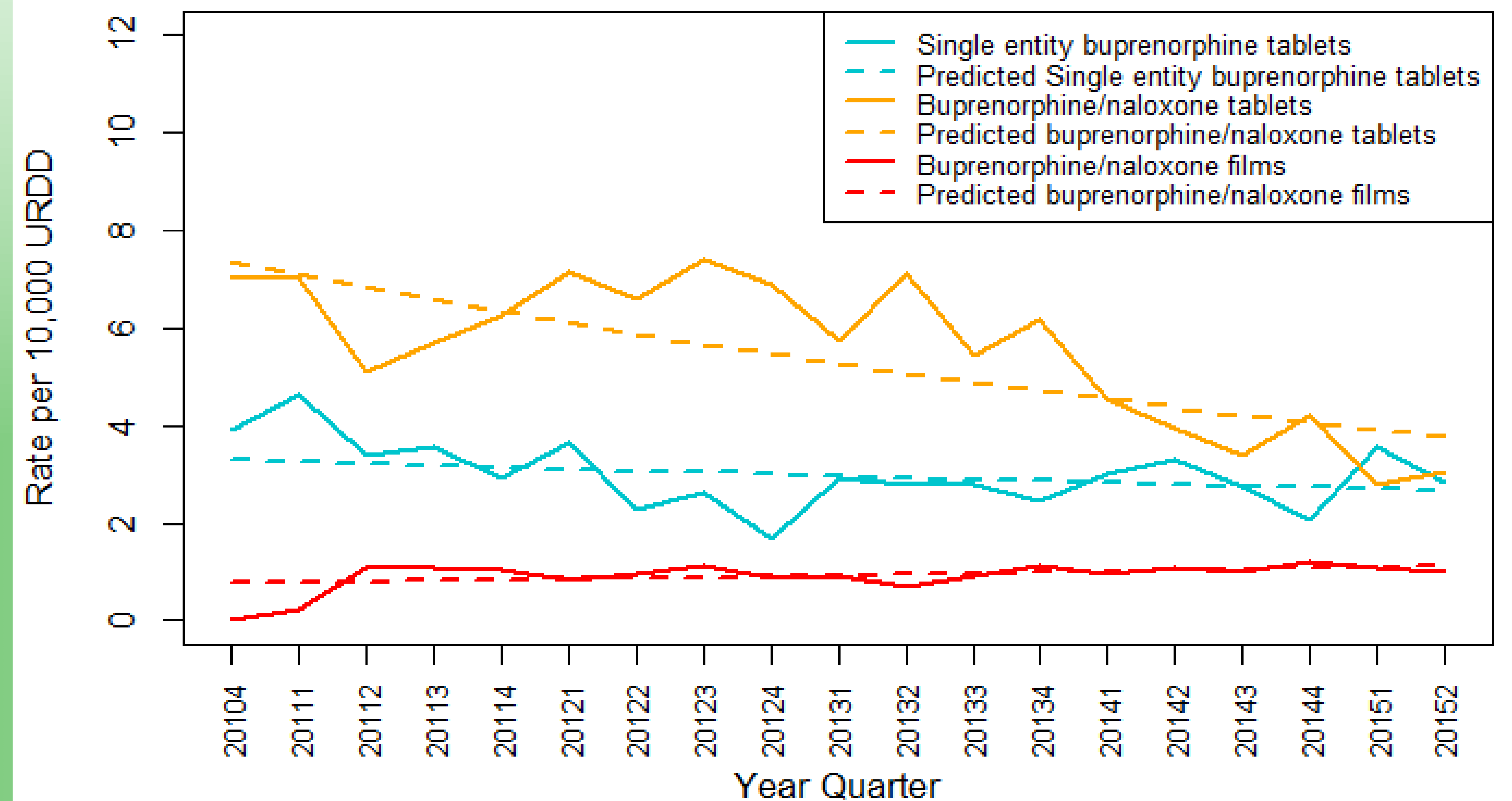


Table 1. Estimated Rates and Slopes for Unintentional Exposures for Children Less than Six Years per 10,000 URDD

Drug Group	Expected Rate in 2015Q2 (95% CI)	Rate Ratio (95% CI), p-value	% Change in Slope (95% CI), p-value	Difference in Slopes, p-value
Buprenorphine/naloxone films	1.11 (0.94, 1.30)		1.02 (1.00, 1.04), 0.043	
Single-entity buprenorphine tablets	2.68 (2.28, 3.14)	2.42 (1.92, 3.03), <0.001	0.99 (0.97, 1.01), 0.199	0.018
Buprenorphine/naloxone tablets	3.77 (3.13, 4.53)	3.40 (2.66, 4.34), <0.001	0.96 (0.95, 0.98), <0.001	<0.001

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