

# Buprenorphine in Tennessee

---

## What is buprenorphine?

Buprenorphine is an opioid partial agonist medication used for the treatment of opioid addiction. Opioid partial agonists are drugs that activate opioid receptors, but not to the same degree as full agonists such as heroin and methadone. Buprenorphine blocks opioid receptors and prevents full agonists from exerting their effects. Although it can be abused, buprenorphine has less abuse potential than other opioids (Substance Abuse and Mental Health Services Administration, 2004).

Buprenorphine is the active ingredient in the prescription medications Subutex® and Suboxone®. Subutex® contains only buprenorphine while Suboxone® contains both buprenorphine and naloxone. Naloxone is included to discourage abuse. When naloxone is injected or snorted, it blocks the effects of opioids and precipitates withdrawal symptoms. Subutex® is used at the beginning of treatment and Suboxone® is used in the maintenance treatment of opiate addiction. Suboxone® is the most commonly prescribed buprenorphine product (CESAR Fax, 2015).

## How does buprenorphine differ from methadone?

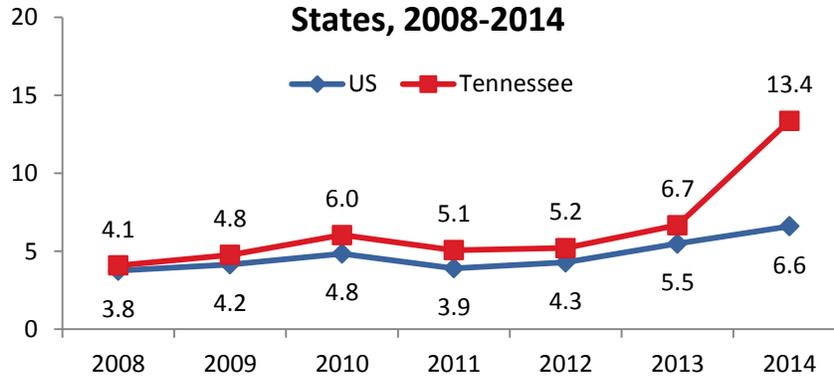
Buprenorphine has weaker opioid effects, is less likely to result in overdose, and produces a lower level of physical dependence than methadone. In contrast to methadone which can only be dispensed by federally regulated Opioid Treatment Programs (OTP), buprenorphine is currently the only medication that can be prescribed in a certified physician's office for opioid treatment outside the OTP setting. These OTPs serve about 5,600 Tennesseans on a daily basis. The average number of people receiving treatment at Tennessee opioid treatment centers annually is about 8,660. Prescription opioid dependence causes about 2,000 new people to seek treatment at OTPs annually.

Patients can receive a 30-day take-home dose of buprenorphine shortly after beginning treatment. In contrast, methadone patients must comply with treatment for two years to be eligible to receive a 30-day take-home dose (CESAR Fax, 2015). According to SAMHSA's treatment locator, 481 Tennessee physicians and 24 treatment programs were certified to prescribe buprenorphine as of April 13, 2015 (SAMHSA, 2015). The SAMHSA website does not indicate the size of the physician practice, whether they are active or not, and only includes physicians agreeing to be listed.

## How accessible is buprenorphine treatment?

Tennessee currently has a buprenorphine patient treatment capacity double that of the United States. Tennessee moved from a patient capacity rank among all states from a rank of 18 in 2008 to a rank of 7 in 2014 (SAMHSA, 2015). Patient treatment capacity was calculated by multiplying the number of physicians x their treatment capacity (30 patients or 100 patients) each year for each state. Patient capacity was then divided by annual state population estimates per 10,000.

**Figure 1. Estimated buprenorphine patient treatment capacity per 10,000 population: Tennessee and the United States, 2008-2014**

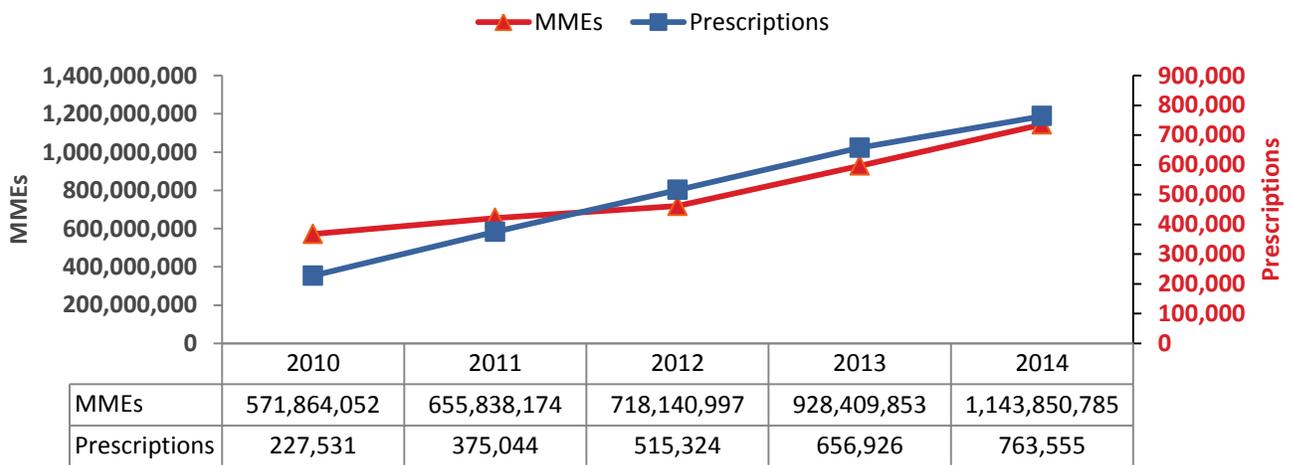


(SAMHSA, 2015)

### How has Tennessee buprenorphine use changed over time?

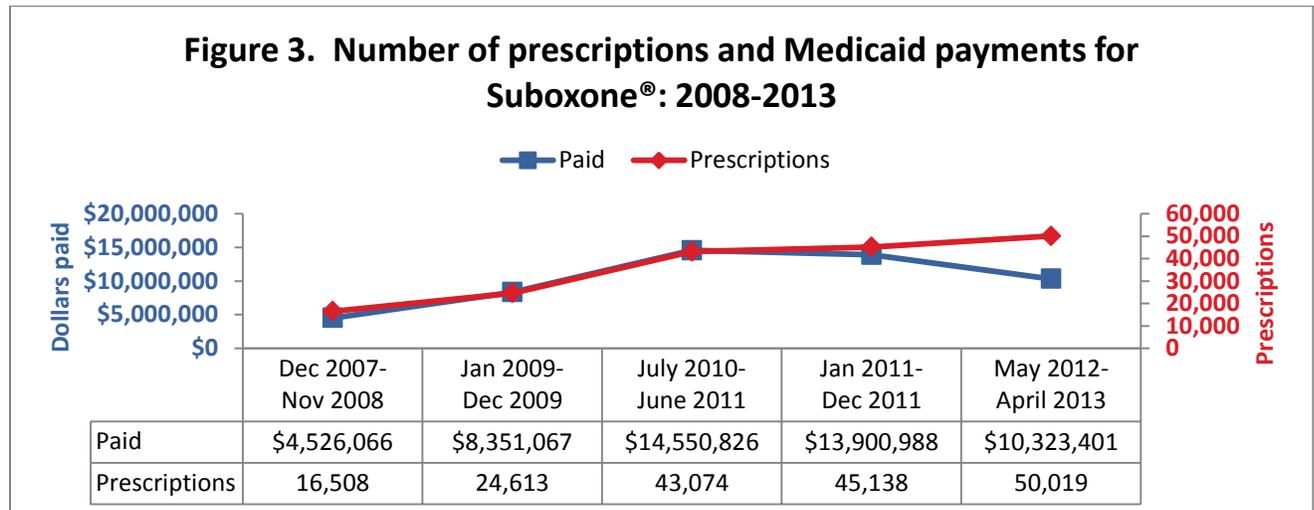
Both the number of prescriptions for buprenorphine and the number of buprenorphine morphine milligram equivalents (MMEs) have increased over the past five years. (Tennessee Department of Health, 2015). MMEs are a standard measure of the potency of different opioids. Figure 2 shows the number of MMEs and prescriptions for buprenorphine from 2010 to 2014. (See data limitations below.)

**Figure 2. Number of MMEs and prescriptions for buprenorphine in Tennessee: 2010-2014**



(Tennessee Department of Health, 2015)

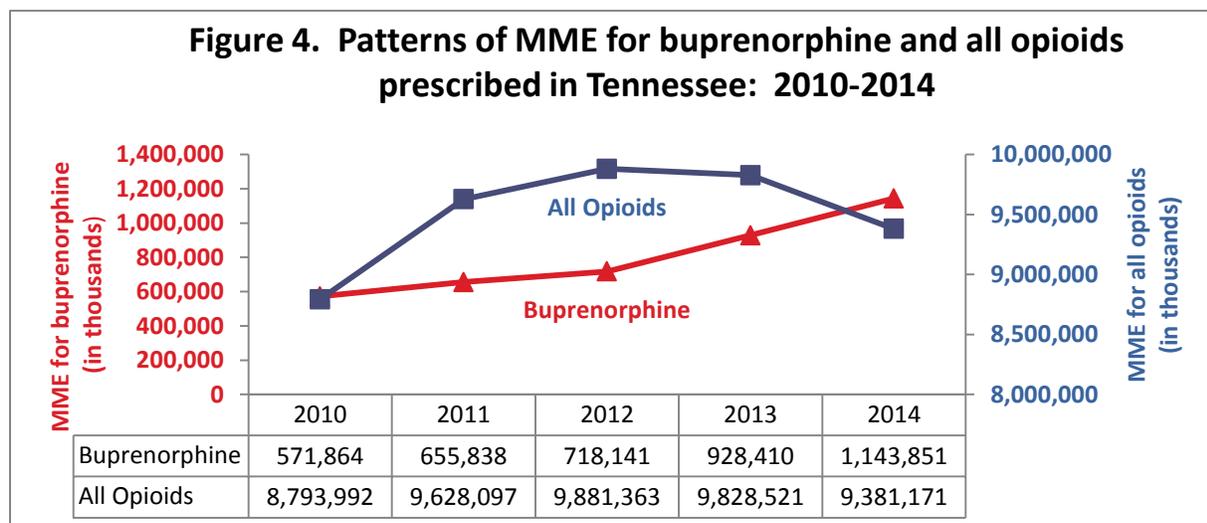
Data from TennCare show the number of Suboxone® prescriptions increased about 200% from 2008 to 2013: from 16,500 to 50,000. TennCare costs for Suboxone® increased similarly from \$4.5 to \$10.3 million for this same time period; however, per script costs for this time period declined 25%, from \$274 to \$206 per script (AON Hewitt Health Care Benefits Consulting, 2010-2014). Figure 3 shows trends for this time period.



(AON Hewitt Health Care Benefits Consulting, 2010-2014)

### Does increased use reflect greater treatment needs or misuse?

The increasing number of prescriptions for buprenorphine may, in part, reflect a higher treatment need. As the overall amount of prescribed opioids in Tennessee declines, patients may turn to buprenorphine as treatment for opioid addiction. Figure 4 shows the reduction in prescribed opioids contrasted with the increase in prescribed buprenorphine for people in Tennessee.



Note: The scale for Buprenorphine is smaller than the scale for all opioids.

(Tennessee Department of Health, 2015)

An alternative explanation is that buprenorphine is being diverted for non-medical use (e.g., to sell or get high). Nationwide, buprenorphine diversion for non-medical use is increasing. Indicators of the diversion of buprenorphine include drug seizures by law enforcement and an increase in emergency room visits associated with misuse of buprenorphine (CESAR Fax, 2015).

## Data limitations

Two data limitations should be noted. In addition to being used as in substance abuse treatment, buprenorphine can also be prescribed as a pain medication. There is currently no way to distinguish how much buprenorphine is prescribed for pain relief and how much is prescribed for substance abuse treatment. Additionally, MMEs may be a better measure of prescribing patterns than the number of prescriptions, since the amount of MMEs contained in a single prescription can vary dramatically.

## Works Cited

AON Hewitt Health Care Benefits Consulting. (2010-2014). *Annual actuarial reviews of the TennCare Program: development of per member costs*. Comptroller Report.

CESAR Fax. (2015, January 9). *CESAR FAX Buprenorphine Series: March 31, 2013 to December 15, 2014*. Retrieved April 3, 2015, from CESAR Center for Substance Abuse Research:  
<http://www.cesar.umd.edu/cesar/pubs/BuprenorphineCESARFAX.pdf>

SAMHSA. (2015). *Buprenorphine physician and treatment program locator*. Retrieved April 3, 2015, from Substance Abuse and Mental Health Services Administration:  
[http://buprenorphine.samhsa.gov/pls/bwns\\_locator/!provider\\_search.process\\_query?alternative=CHOICEG&one\\_state=TN](http://buprenorphine.samhsa.gov/pls/bwns_locator/!provider_search.process_query?alternative=CHOICEG&one_state=TN)

SAMHSA. (2015, July 23). *Number of DATA certified physicians by state and year*. Retrieved July 23, 2015, from Buprenorphine: <http://www.buprenorphine.samhsa.gov/>

SAMHSA Center for Behavioral Health Statistics and Quality. (2014). *National Survey on Drug Use and Health, 2012 and 2013*. Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (2004). *Clinical guidelines for the use of buprenorphine in the treatment of opioid addiction: a treatment improvement protocol, TIP 40*. Washington, D.C.: U.S. Department of Health and Human Services.

Substance Abuse and Mental Health Services Administration. (2012). *Treatment Episode Data Set—Admissions (TEDS-A)*. Washington, DC: U.S. Department of Health and Human Services.

Tennessee Department of Health. (2015). *Controlled Substance Monitoring Database: 2015 Report to 109th General Assembly*.