

# Controlled Substance Monitoring Database

2015 Report to the 109<sup>th</sup> Tennessee General Assembly



Health Licensure & Regulation

Controlled Substance Monitoring Database Committee

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## Executive Summary

### Background

This report addresses activities of the Controlled Substance Monitoring Database (CSMD) program. The Controlled Substance Monitoring Database Committee (CSMD Committee) reports annually on the outcome of the program with respect to its effect on distribution and abuse of controlled substances along with recommendations for improving control and prevention of diversion of controlled substances and the security measures taken to ensure that only authorized persons or entities access the database.

### Key Outcomes:

#### Increased Utilization of the CSMD

- The number of registrants increased by 11.7% in 2014 to 38,871 registrants;
- There was a 12.6% overall increase in the number of patient reports requested in 2014 to 5,064,847 (5,062,732 were from Healthcare Providers and 2,115 were from Law Enforcement).

#### Outcomes Related to Ratio of Prescriptions Reported to CSMD / Request

- In 2014 each prescription written was three times more likely to have a search done than in 2010.

#### Outcomes Related to Morphine Milligram Equivalents (MME) Reported to CSMD

- Pain killers dispensed (MME) in Tennessee decreased 4.6% in 2014;
- This is the first decrease in MME since we have been able to track six year ago.

#### Outcomes Related to Top 50 Prescribers

- Compared to 2013, 36% of the Top 50 Prescribers were new to the list this year;
- Pain killers dispensed (MME) from Top 50 Prescribers decreased by 12%.

#### Outcomes Related to Doctor-Pharmacy Shopping

- The number of “doctor shoppers” (patients who utilize 5 prescribers or more and 5 pharmacies or more in 3 months) decreased for the last three years, including a 13.3% decrease in 2014.

#### Prescriber and Dispenser Satisfaction of the CSMD

- A survey in November / December 2014 involved more than 2520 respondents;
- These clinicians continue to utilize the CSMD frequently;
- Clinicians frequently discuss CSMD results with patients (81% of prescribers and 66% of dispensers);
- Prescribers are less likely to prescribe after checking CSMD (41%);
- One third of clinicians are more likely to refer a patient for substance abuse treatment after checking the CSMD;

- 86% of prescribers and 85% of dispensers report that the CSMD is useful for decreasing doctor shopping.

### Database Performance

- In 2014, the system was up and functional 99.8% of the year.
- The average time to complete a search is less than 10 seconds.

### Increased Interstate Data Sharing

- Tennessee now has successful data sharing with six states (Arkansas, Kentucky, Michigan, Mississippi, South Carolina and Virginia);
- Working to establish interstate data sharing with contiguous states.

### Goals:

- CDC Grant –Tennessee Department of Health (TDH) was awarded a grant of \$1.4 million from the Centers for Disease Control and Prevention (CDC) to:
  - Understand how to identify high-risk prescribers, dispensers and patients;
  - Identify which legislative efforts have been most successful in making progress;
  - See improvements in patient care services to Worker Compensation patients utilizing information in the CSMD.
- Make the CSMD even easier to use so clinicians can get maximum benefit from this information.

The CSMD Committee and TDH will continue to be aggressive in efforts to reduce the likelihood of adverse events, including addiction, overdose, overdose deaths and NAS, related to controlled substance use and help prevent diversion.

The prescriptive and dispensing regulatory board fees pay for the CSMD initiative (no state dollars) and additional funding is secured through grants.

Proactive support of the legislature in 2002 in creating the controlled substance monitoring program was one of many enacted to enable Tennessee to become one of the best programs in the country. This has resulted in Tennessee being one of the few states to see decreases in controlled substances dispensed. Continued support of this program is essential to ongoing benefit and is greatly appreciated.

## Results of Data Analysis

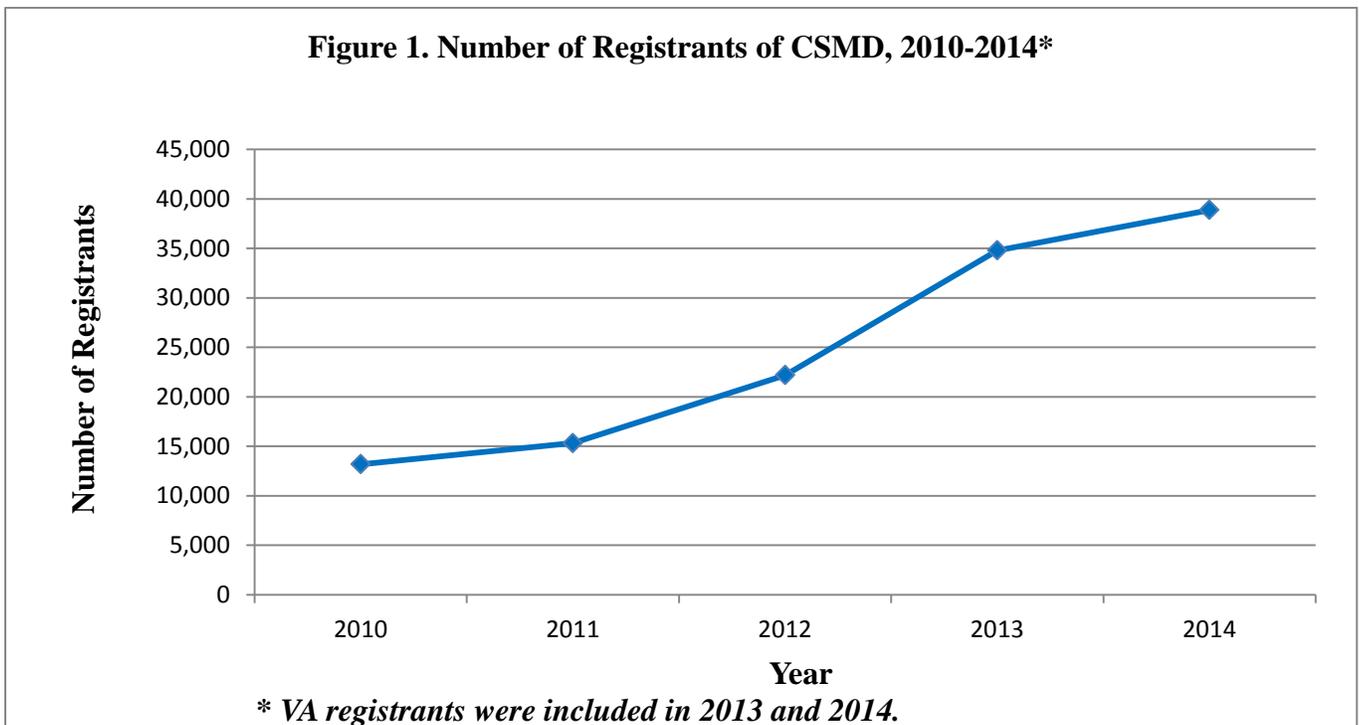
### Outcomes

The primary purpose of this section is to report on the outcome and the efficacy of the CSMD Program. The Board of Pharmacy staff compiled the following data describing the controlled substances prescriptions reported to the CSMD from January 1, 2014 to December 31, 2014. Tenn. Code Ann. § 53-10-306 (a) (2) allows Board of Pharmacy staff to access database information for the purposes of compiling this report.

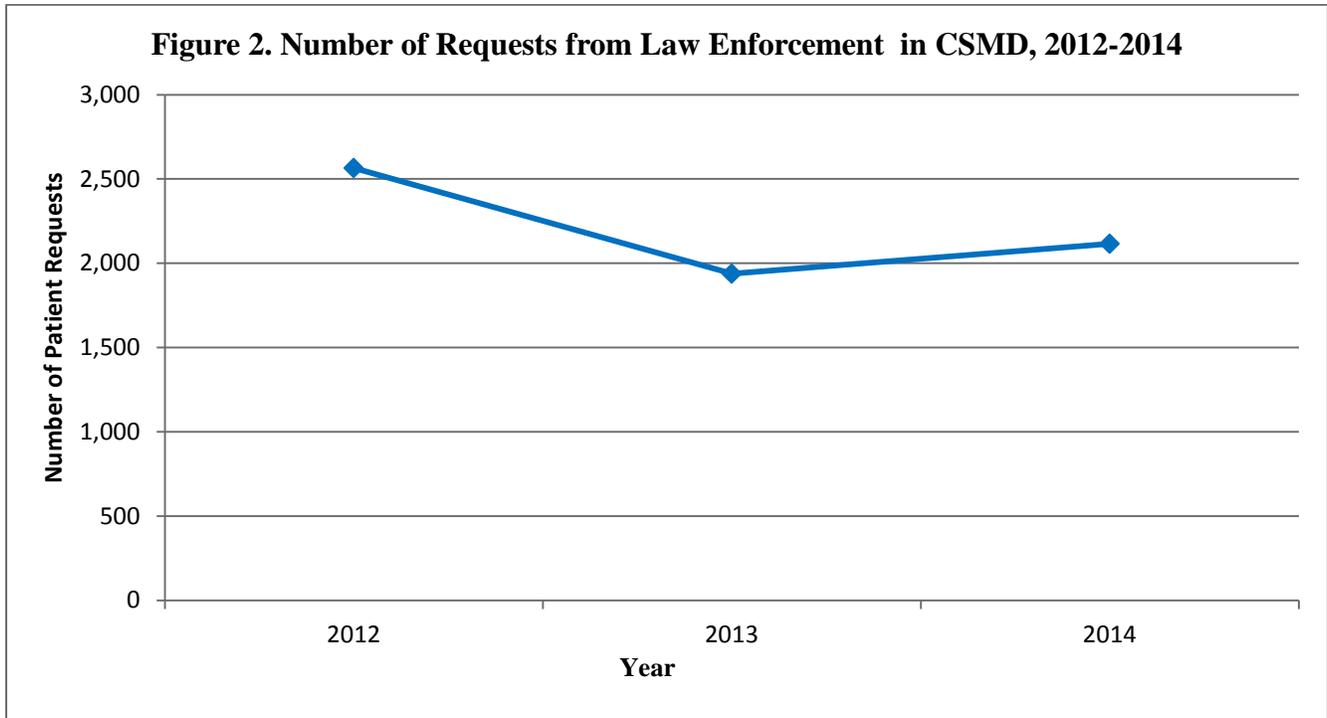
#### Increased Utilization of the CSMD

The Prescription Safety Act of 2012 has facilitated a substantial increase in utilization of the CSMD by healthcare practitioners and law enforcement. This year’s data indicates:

- The number of registrants increased by 11.7% in 2014 to 38,871;
- There was a 12.6% overall increase in the number of patient reports requested in 2014 to 5,064,847 (5,062,732 were from Healthcare Providers and 2,115 were from Law Enforcement);
- See [Table 1 in Appendix](#) for details of the number of registrants since 2010.



Requests from Prescribers and Prescriber Extenders continue to increase steadily since 2010. Law enforcement requests to the CSMD ([Table 2 in Appendix](#)) continue to be a critical use of the CSMD as we all work together to address questionable controlled substance use in Tennessee.

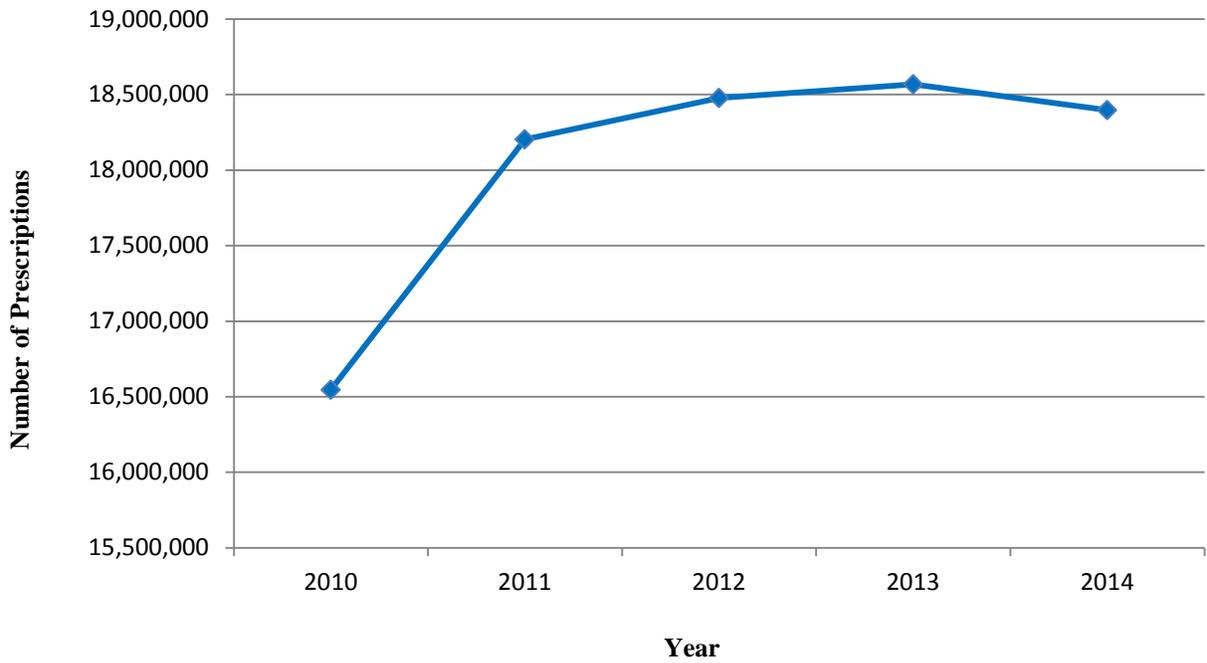


Effective July 1, 2011, law enforcement was granted access to the CSMD without a court order or subpoena by sending in a request to the CSMD Program.

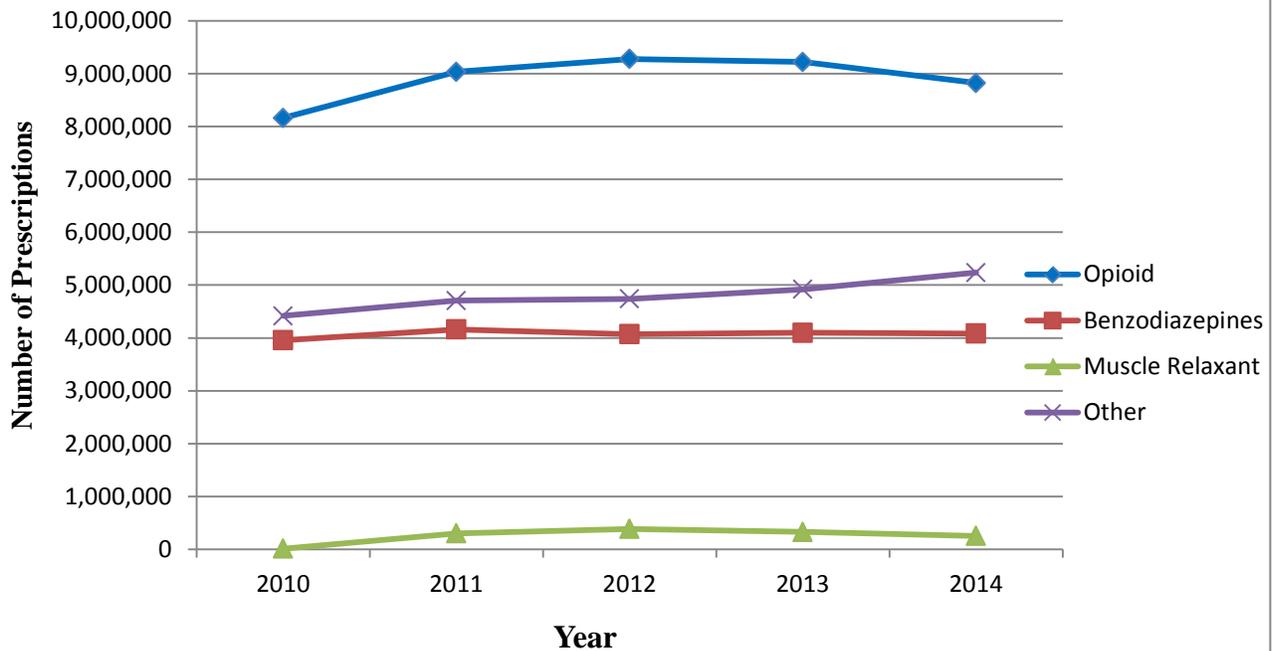
### Outcomes Related to Number of Prescriptions Reported

Since 2010, the number of prescriptions added to the CSMD continued to rise. Note that a significant change happened in 2011 when Tennessee scheduled tramadol and carisoprodol as schedule IV controlled substances resulting in added reporting volume to the CSMD. Fortunately in 2012 the CSMD started to appreciate that this overall growth was beginning to decline. Analysis of the 2014 data suggests that for the first time Tennessee is experiencing a decrease in reporting of prescriptions to the CSMD with a 0.9% decline in prescriptions reported. [Table 3 in Appendix](#) and [Figure 4](#) best illustrate this welcomed news to hopefully demonstrate that the partnership with the clinicians, legislature, state government and law enforcement has created a culture of utilizing the database as a clinical tool as was intended back in 2002 when the first CSMD Legislation was passed in Tennessee. [Figure 5](#) and [Table 4 in Appendix](#) below demonstrate the number of prescriptions of controlled substances dispensed and reported to CSMD by class of controlled substances. The opioid class utilization numbers clearly showing some early improvement 4.3% decrease from 2013 to 2014 after it was targeted legislatively, educationally and now through the focus of the new Chronic Pain Guidelines. The other targeted class is the benzodiazepine class which decreased 0.4% from 2013 to 2014 and continues to show a slight overall decline since 2011.

**Figure 4. Number of Prescriptions of Controlled Substances Dispensed and Reported to CSMD, 2010-2014**

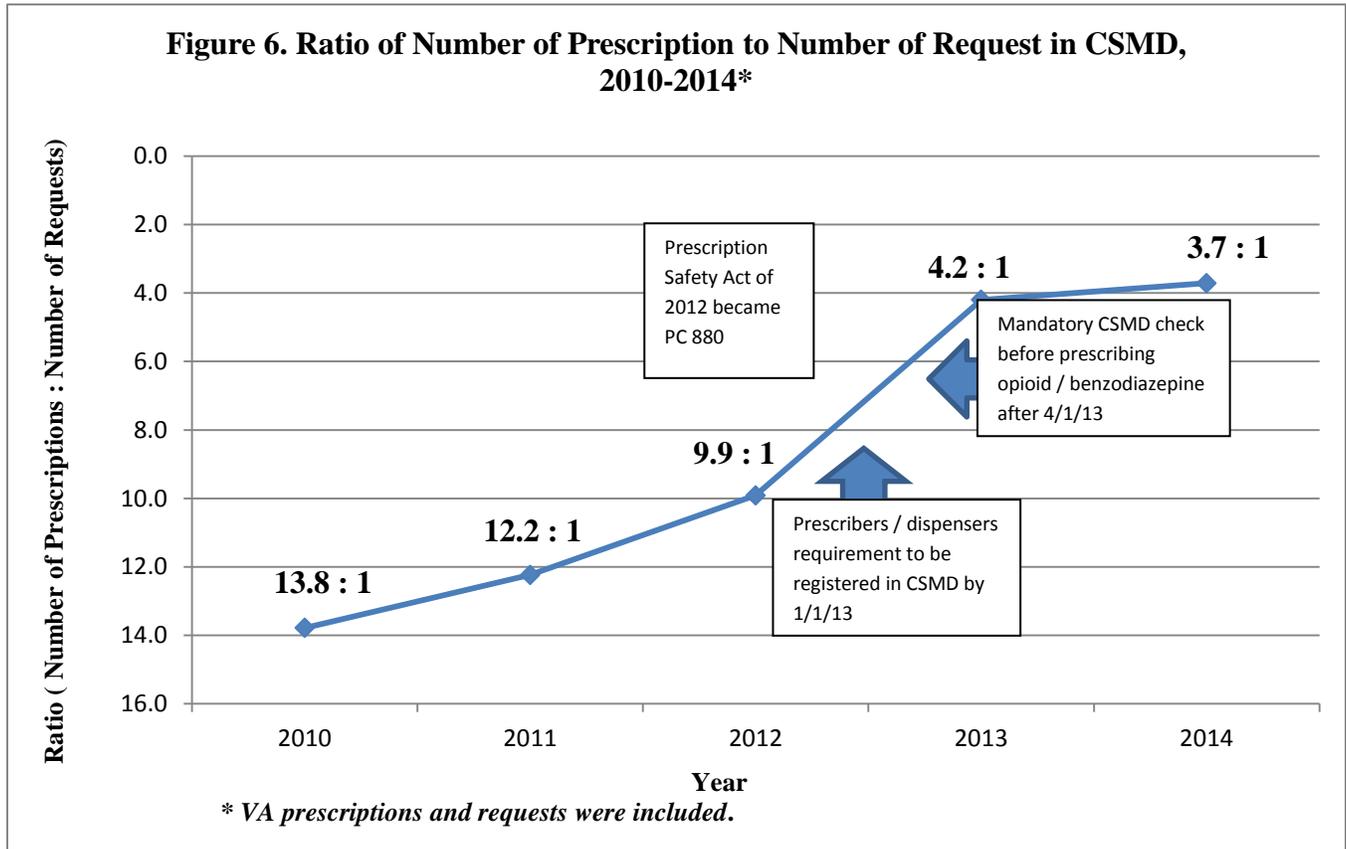


**Figure 5. Number of Prescriptions of Controlled Substances Dispensed and Reported to CSMD by Class of Controlled Substances, 2010-2014**



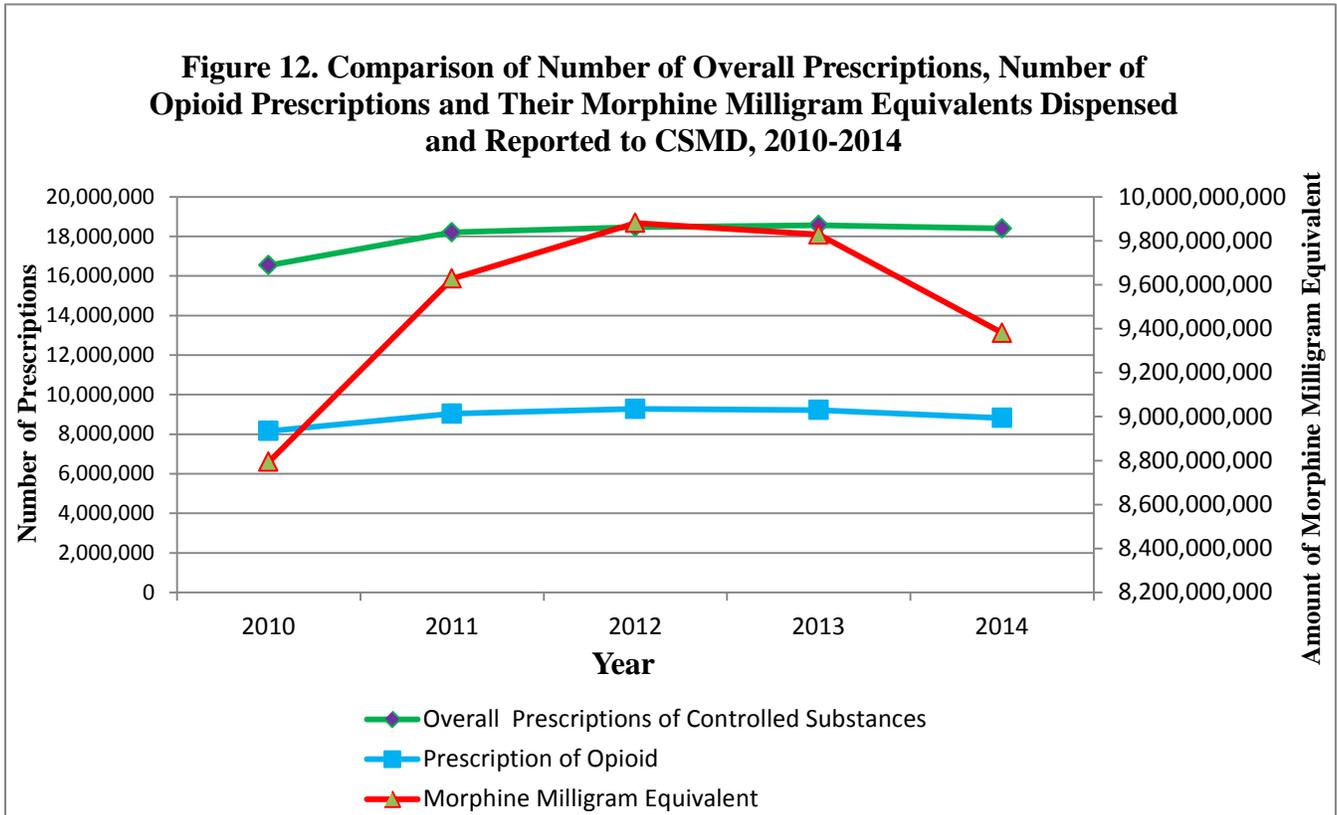
**Outcomes Related to Ratio of Prescriptions**

The CSMD continues to gain overall use as Tennessee works together to fight the prescription drug crisis. In order to illustrate this gain in utilization of the CSMD, [Figure 6](#) below presents a ratio of prescriptions in the CSMD to the number of requests made to the CSMD. Since 2010, Tennessee has observed sustained improvement in this ratio from 13.8:1 in 2010 to 3.7:1 in 2014.



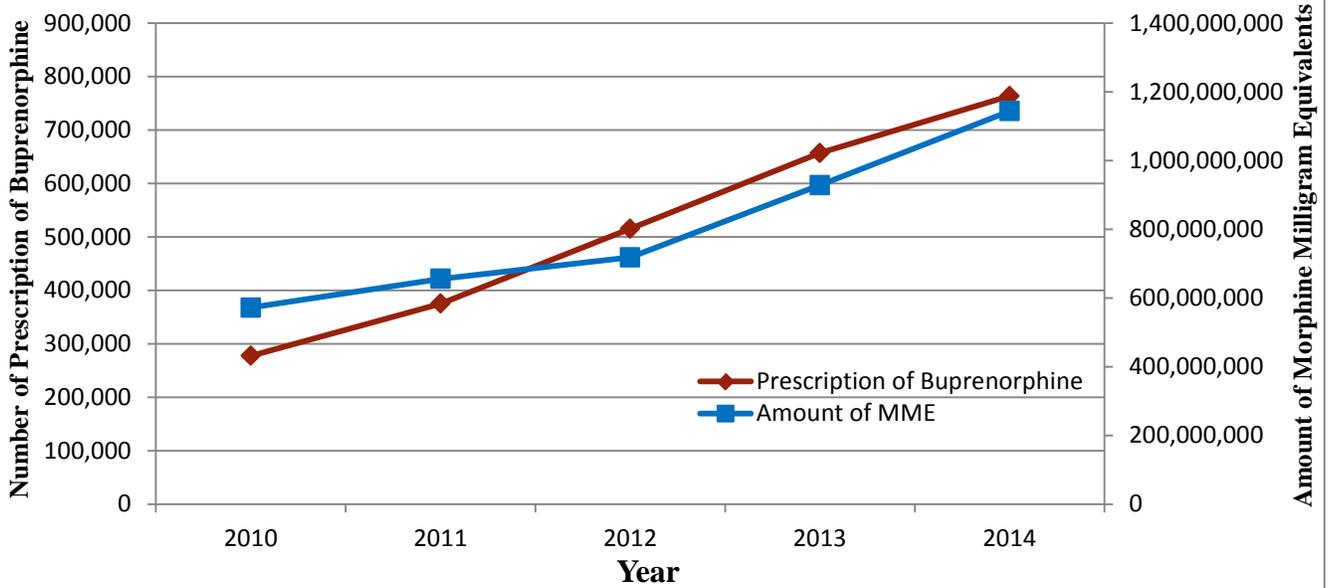
**Outcomes Related to Utilization of Opioids and Morphine Milligram Equivalents**

The CSMD patient report has been enhanced to include the patient’s current MME. This feature of the patient report is a quantification of MME for all opioid prescriptions which are “active” (based on fill date, quantity and day supply) standardized to an equivalent dose of morphine. This standardization of opioid dose aids in determining opioid exposure and shaping the clinical decision-making process. In 2014, Tennessee had for the first time a decline in overall controlled prescriptions with a decline in opioid prescriptions and more importantly an impressive decline in MME of 4.6% compared to 2013.

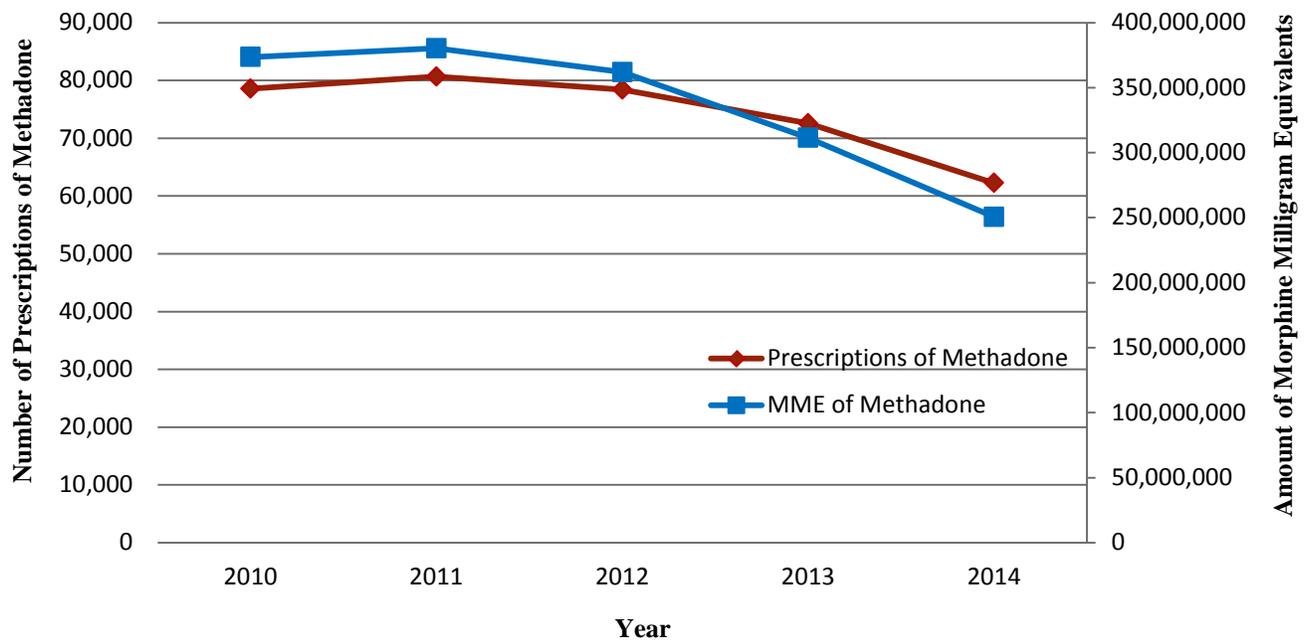


Other changes worth noting are an increase in prescriptions and MME for Buprenorphine and a decline for Methadone prescriptions and MME since 2010 (See [Table 7, 8](#) in Appendix and [Figure 13, 14](#)). The Chronic Pain Guidelines indicate Buprenorphine should be used only for addiction and Methadone should not be used for pain and used only in federal treatment facilities for addiction.

**Figure 13. Number of Prescription of Buprenorphine Products and their Amount of Morphine Milligram Equivalents (MME) Dispensed and Reported to CSMD, 2010-2014**



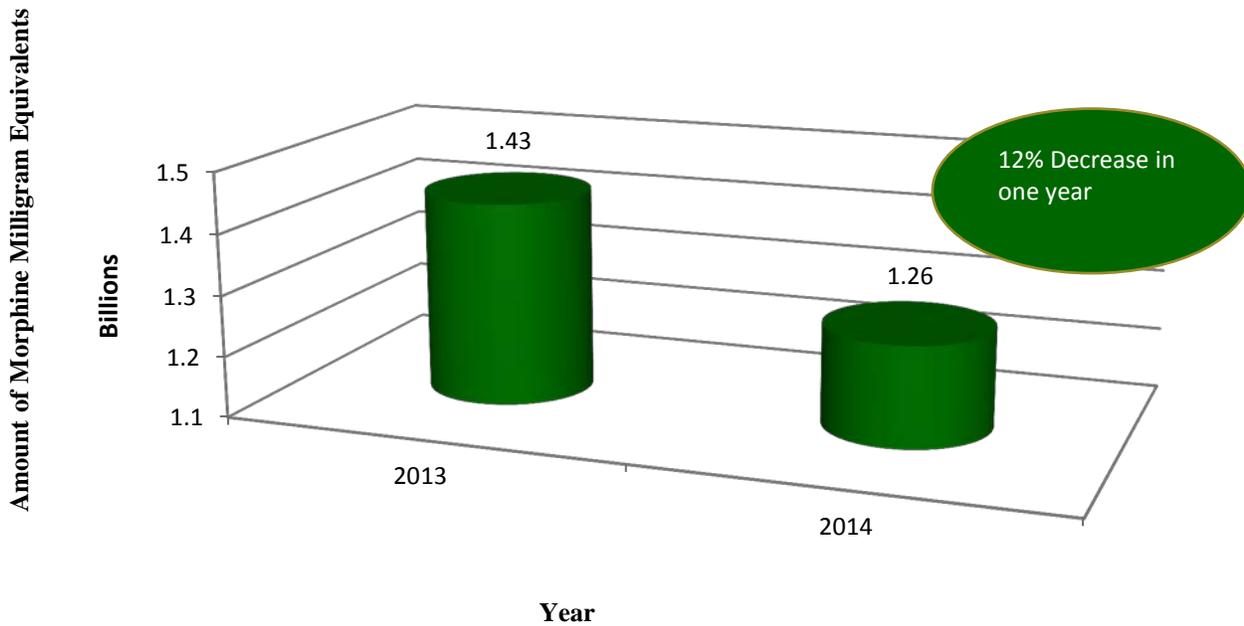
**Figure 14. Number of Prescription of Methadone Products and Their Morphine Milligram Equivalents (MME) Dispensed and Reported to CSMD, 2010-2014**



**Outcomes Related to Top 50 Prescribers**

Public Chapter 396 required the CSMD to identify the top fifty (50) prescribers in Tennessee. Communication has been sent to these prescribers in the form of letters. There has been a 12% decrease in the MME dispensed from the Top 50 Prescribers in 2014 compared to 2013 (Figure 15). This decrease would equate to 33.75 million fewer Hydrocodone / acetaminophen (5mg) tablets being dispensed from the top 50 prescribers in 2014.

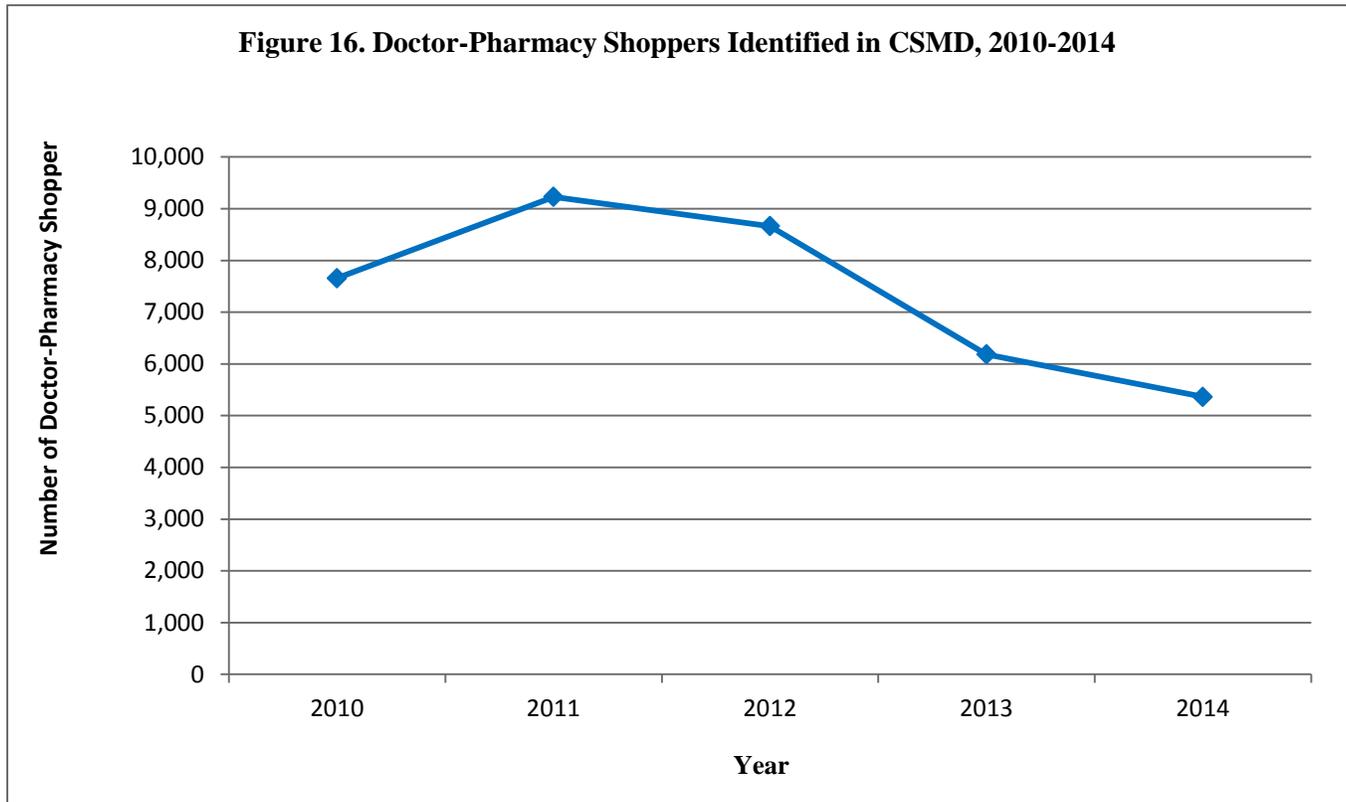
**Figure 15. Morphine Milligram Equivalents Dispensed by Top 50 Prescribers in 2013 and 2014\***



\* Time period for identification of the top 50 prescribers was 12 months (April 1 of preceding year to March 31 of current year)

### Outcomes Related to Doctor-Pharmacy Shopping

There has been a noticeable sustained decrease of 38% of doctor-pharmacy shopping patients since the Prescription Safety Act of 2012 became law (1/1/2013) (Figure 16). A commonly used criterion defines a doctor-pharmacy shopping patient as a person who utilizes 5 prescribers or more and 5 pharmacies or more in 3 months. The Table 10 in Appendix is a representation of this encouraging trend as our statewide partnership continues to address the concern of “doctor-pharmacy shopping”.



### Outcomes Related to User Satisfaction & Perception of the CSMD

Prescribers and Dispensers were provided the opportunity to update the CSMD Program of their Satisfaction & Perception of the CSMD. For more detailed information from these surveys see Appendix. It is worth noting the reason most prescribers utilize the CSMD and majority are related to a new patient or as an outcome of the legislative and policy actions to help change the practice culture in Tennessee to mandate CSMD checks for certain patients. Forty-one (41) % of prescribers report that they are less likely to prescribe controlled substances after checking the CSMD (Figure 8). Thirty-four (34) % of prescribers are more likely to refer a patient for substance abuse treatment (Figure 10); 86% report that the CSMD is useful for decreasing doctor shopping (Figure 9).

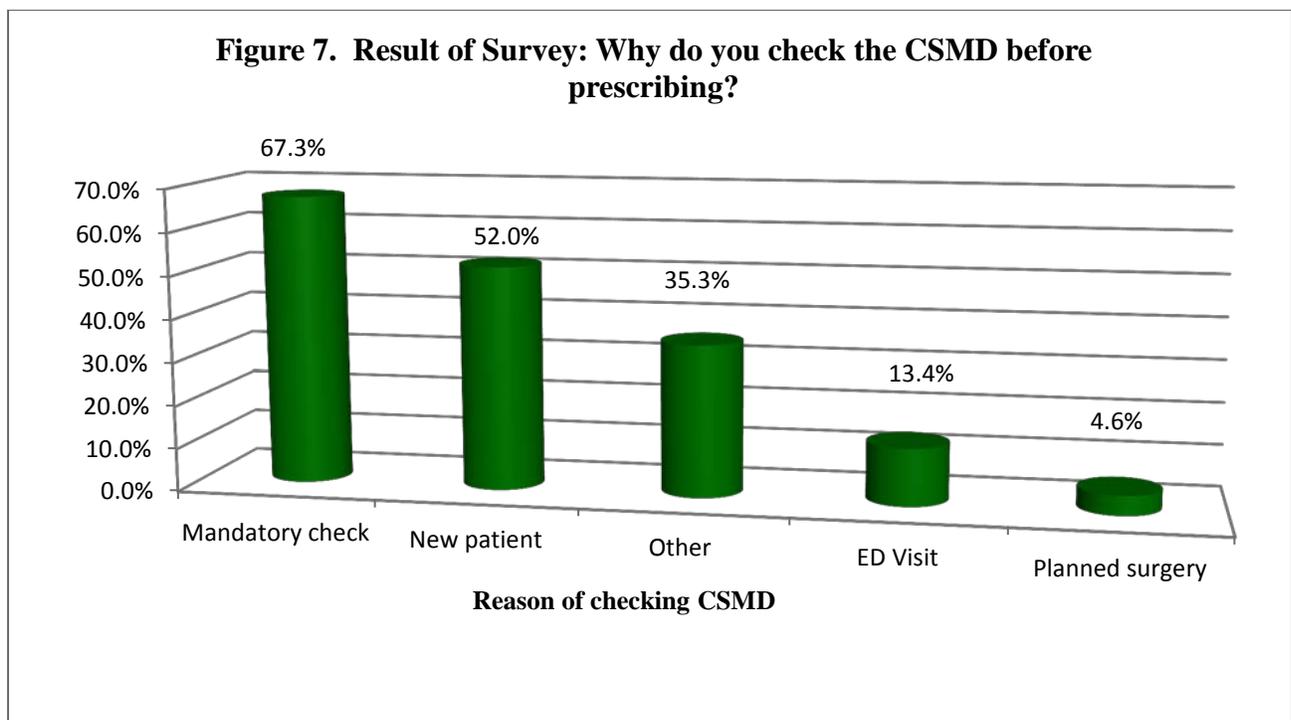
### 2014 Prescriber User Survey

As a measure of satisfaction with improvements to the CSMD, a survey of prescribers was conducted in 2014 with greater than 1,900 responding, with the following notable responses:

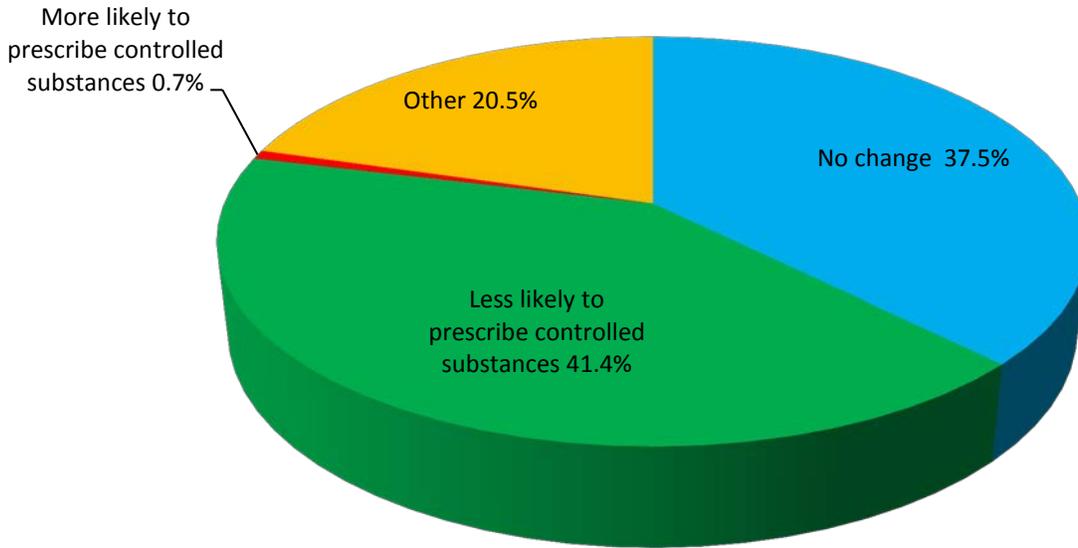
- 76% use the CSMD at least monthly;
- 67% of responders have changed a treatment plan after viewing a CSMD report ;
- 81% report discussing the CSMD report with their patient and 41% do so somewhat to very often;
- 34% of responders are more likely to refer a patient for substance abuse treatment ([Figure 10](#));
- 86% of respondents report that the CSMD is useful for decreasing doctor shopping ([Figure 9](#)); and
- 41% report that they are less likely to prescribe controlled substances after checking the CSMD ([Figure 8](#)).

### 2014 Dispensers User Survey (almost 600 responding in the first year of this survey)

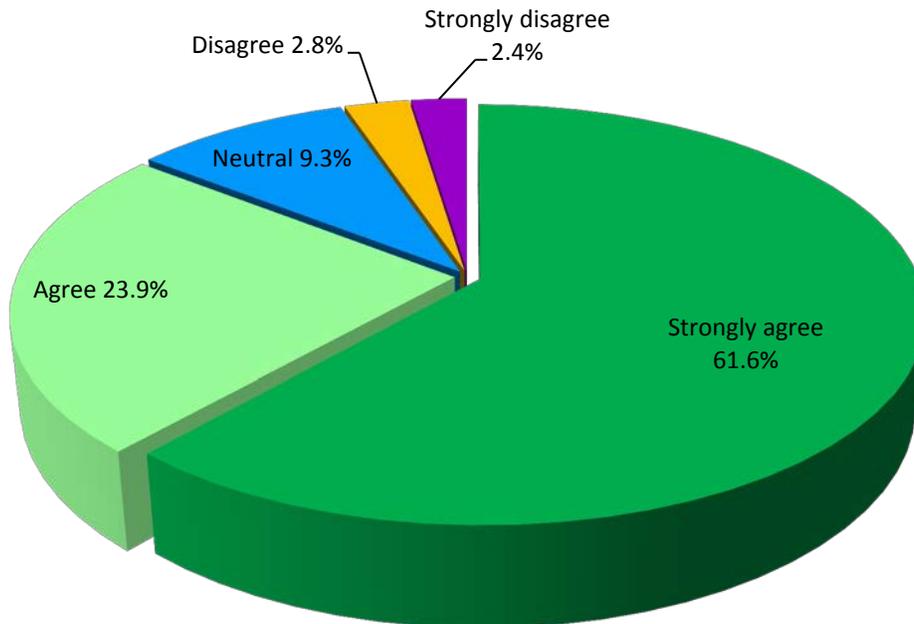
- 88% use the CSMD at least monthly;
- 69% of responders communicate with the prescriber after viewing a CSMD report;
- 66% report discussing the CSMD report with their patient and 34% do so somewhat to very often;
- 52% of responders are more likely to communicate with the prescriber regarding a patient with potential for referral to substance abuse treatment ([Survey Response](#));
- 85% of respondents report that the CSMD is useful for decreasing doctor shopping ([Survey Response](#)); and
- 81% report that they are less likely to fill a prescription after checking the CSMD ([Survey Response](#)).



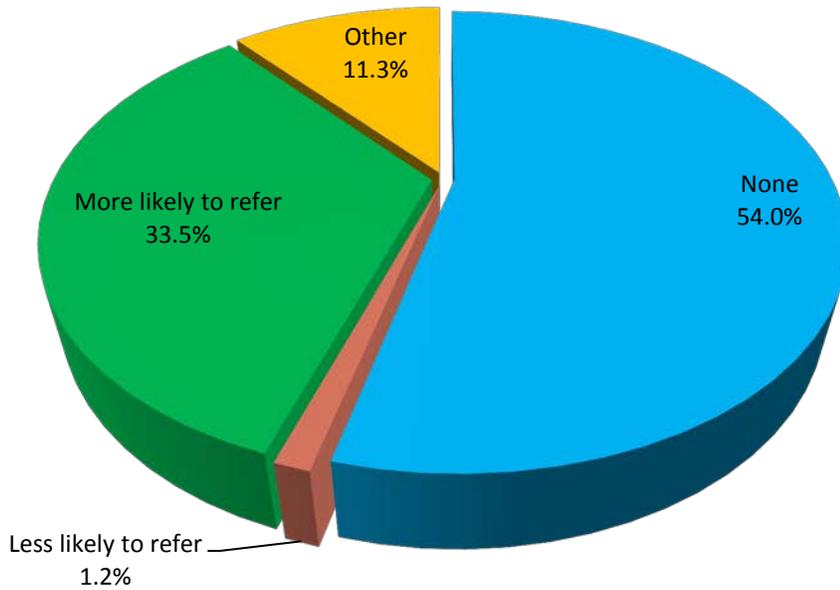
**Figure 8. Result of Survey: How has checking the CSMD changed the way you practice medicine?**



**Figure 9. Result of Survey: The CSMD is useful for decreasing the incidence of doctor shopping.**

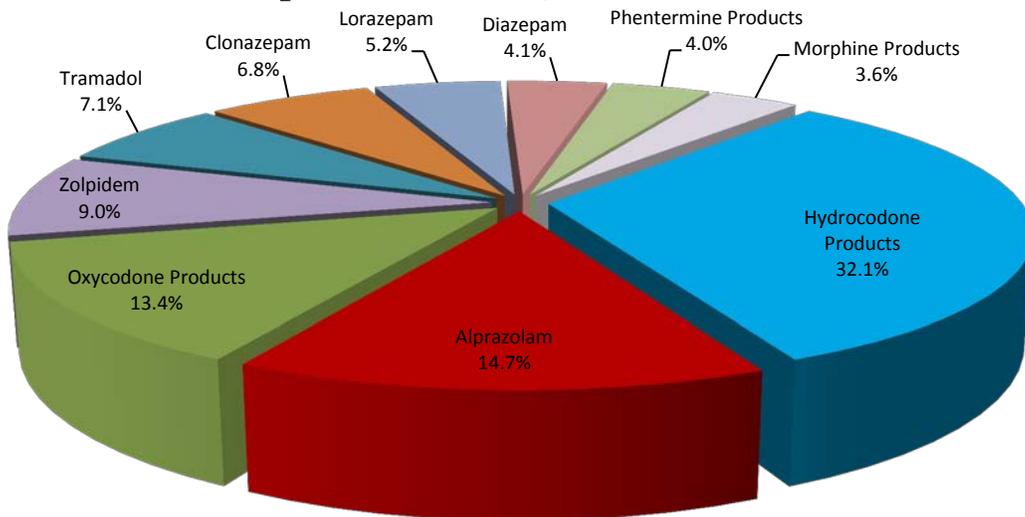


**Figure 10. Result of Survey: Has checking the CSMD changed your practice of referring patients for substance abuse treatment?**



**Outcomes Related to Top 10 Drugs for 2014**

**Figure 11. Distribution of the Top 10 products Reported to CSMD, 2014**



For additional information see [Table 5 in Appendix](#)

### Database Performance

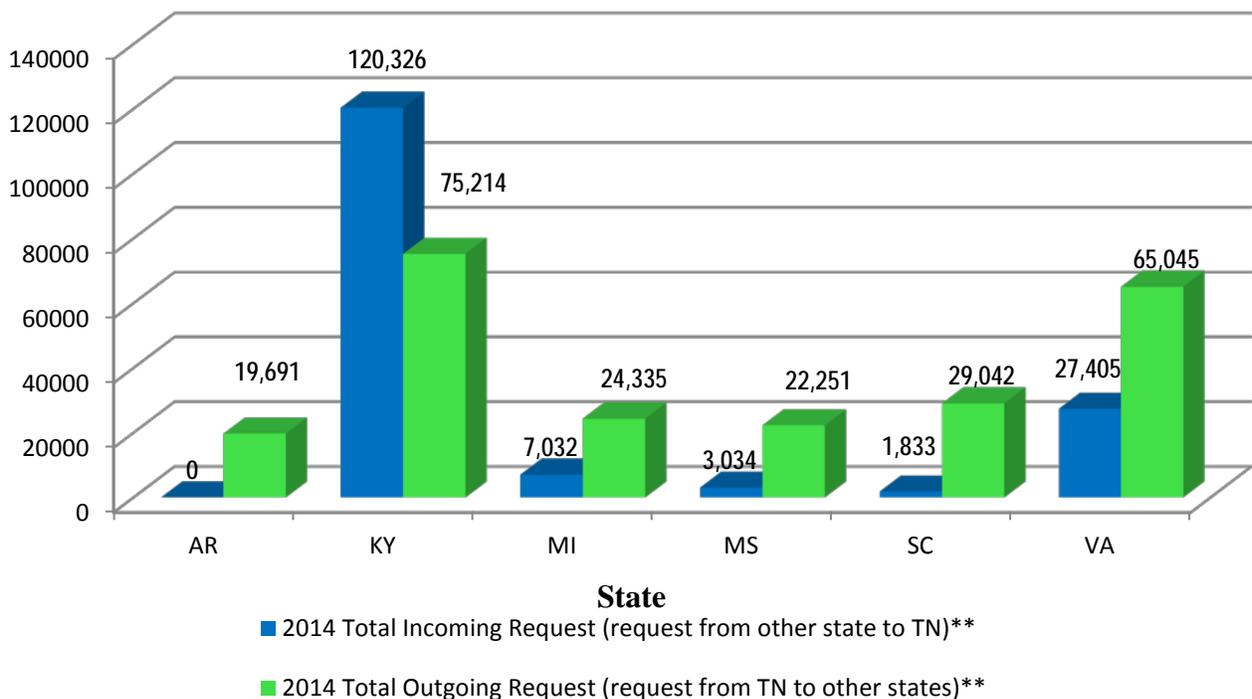
In 2014, the system was up and functional 99.8% of the year. The system did have a 0.2% downtime for the year. These downtimes were isolated to three separate days. The last day of downtime was in July 2014 for the year.

During 2014, the CSMD program was able to complete surveys with prescribers and dispensers. The results demonstrated that 76% of prescribers and 79% of dispensers shared that the CSMD system typically provides a patient report in less than 10 seconds after submitting a query.

### Increased Interstate Data Sharing

The Tennessee Prescription Safety Act of 2012 permits data sharing with other states. One of the areas of focus for 2014 was to enhance the sharing of prescription data with other authorized states. Currently Tennessee CSMD is sharing with Kentucky, Virginia, South Carolina, Mississippi, Arkansas and Michigan to give practitioners a more complete picture of a patient’s prescription history. Arkansas and Mississippi started sharing the last few days of October 2014. Of these states, only Kentucky requests data more from the CSMD than CSMD users request from the other states. Kentucky had a database in use prior to Tennessee. The CSMD Committee is pleased to see that interstate data sharing functionality is being heavily utilized compared to the other states which indicate the CSMD use is becoming a part of the culture of providing healthcare in Tennessee. [Figure 3](#) below provides the details related to interstate sharing for the last five months of 2014.

**Figure 3. Patient Requests from Other States, 2013 and 2014**



\*\* Data mid August through December. AR and MS data **only** November and December

## Security Measures

*The individuals or entities that had access to the database in 2014 are:* authorized committee, board or department of health personnel, pharmacists, prescribers, Office of Inspector General and other authorized TennCare personnel, the Medicaid Fraud Control Unit, healthcare extenders and hospital quality improvement committees. Law enforcement personnel engaged in an official investigation and enforcement of state and federal controlled substance laws are allowed to request information from the database pursuant to Tenn. Code Ann. § 53-10-306(a)(8). In order to ensure that only those authorized individuals and entities have access, the Board of Pharmacy/CSMD employs the following security measures:

- All authorized entities and individuals that have been granted access to the database pursuant to Tenn. Code Ann. § 53-10-306(a)(1-7) are allowed to enter the database through a registration process where credentials are validated and a unique user name and password are generated from the web application. If any credentials do not pass validation the user request will move to pending for review by CSMD Administrator to determine if user meets criteria for access or registrant may be denied.
- Healthcare extenders (prescriber/dispenser) are granted access to the database pursuant to Tenn. Code Ann. § 53-10-306(a) (10) through a registration procedure where their credentials are verified and a unique user name and password are generated by the web application after approval from their supervising prescriber / dispenser.
- Before the Office of Inspector General, the Medicaid Fraud Control Unit, and TennCare personnel are able to access the database, the individuals requesting access must submit a written request on their respective letterheads to the Board office verifying employment by the entities that they represent before they are supplied with unique individual user names and passwords.
- Dispensers are granted access to the database, through a registration process where credentials are validated and a unique user name and password are generated from the web application. If any credentials do not pass validation the user request will move to pending for review by CSMD Administrator to determine if user meets criteria for access or registrant may be denied.
- When an Authorized users have a unique user profile that provides the Board of Pharmacy / CSMD staff complete oversight of what data has been accessed, updated or viewed by a specific user.
- Requests by law enforcement personnel for information sent to, contained in, and reported from the database pursuant to Tenn. Code Ann. § 53-10-306(a)(8) must submit a written request with a case number corresponding to a criminal investigation. Before releasing any information, the Board of Pharmacy / CSMD staff verifies that the law enforcement personnel are on the approved list submitted by the TBI director or the district attorney general in the judicial district in which the law enforcement agency or judicial district drug task force has jurisdiction.
- Requests for access by persons other than those individuals outlined in Tenn. Code Ann. § 53-10-306(a)(1-7) and (9) were reviewed by Board of Pharmacy staff and Legal Counsel to determine if the person requesting access could be granted access pursuant to applicable laws and rules. Legal staff also reviewed all court orders to ensure compliance with Tenn. Code Ann. § 53-10-306 before releasing any information.
- The Board of Pharmacy staff monitors requests Tenn. Code Ann. § 53-10-308(a) provides that the committee may release confidential information from the database regarding practitioners, patients, or

both, to a manager of any investigations or prosecution unit of a board, committee, or other governing body that licenses practitioners and is engaged in any investigation, adjudication, or a prosecution of a violation under any state or federal law that involves a controlled substance. In exercising its authority under this statutory section, the CSMD Committee voted to allow the Director of the Office of Investigations, licensed attorney for the TDH, to obtain access to the database about specific practitioners when there is an open complaint against a practitioner and the allegations involve that practitioner's controlled substance prescribing practices.

## Background and Summary of the Law

The Controlled Substance Monitoring Act of 2002, enacted in the 2002 Public Acts, Chapter 840 and codified at Tenn. Code Ann. § 53-10-301 *et seq.*, created the controlled substance database ("database"), which is administratively attached to the Board of Pharmacy ("Board"). Tenn. Code Ann. § 53-10-304(c) provides that the "purpose of the database is to assist in research, statistical analysis, criminal investigations, enforcement of state and federal laws involving controlled substances, and the education of health care practitioners concerning patients who, by virtue of their conduct in acquiring controlled substances, may require counseling or intervention for substance abuse[.]" Toward that end, dispensers (pharmacists and prescribers who dispense controlled substances and meet certain requirements) were required to submit data about the controlled substances dispensed (including strength and quantity) along with the patient's name, twice each month to Optimum Technologies who contracted with the Board of Pharmacy to compile the data for the database. The law also provides that the Board along with the CSMD Committee shall establish, administer, maintain and direct the functioning of the database. Tenn. Code Ann. § 53-10-304(b).

In May of 2012, Public Chapter 880 renamed Tenn. Code Ann. § 53-10 Part 3 the "Tennessee Prescription Safety Act of 2012" and amended several requirements. It requires prescribers and dispensers of controlled substances to register in the database. It also requires checking of the database before prescribing over a one week course of benzodiazepines or opioids and once yearly thereafter if continued treatment is warranted. For the first time, a practitioner may designate agents to access the database on their behalf. Healthcare practitioner extenders register for separate password access after designation and approval from their supervising practitioner. Also of importance is the ability to connect with other states and share patient records with other providers who are also treating the patient. Dispensers now must report all prescriptions dispensed every 7 days and submit source of payment with those submissions. Finally, the database capacity was increased in anticipation of more activity from practitioners and staffing of the database office was also increased to support the larger number of users.

Tenn. Code Ann. § 53-10-309 requires the CSMD Committee to report annually on the outcome of the program with respect to its effect on distribution and abuse of controlled substances along with recommendations for improving control and prevention of diversion of controlled substances. In addition, Tenn. Code Ann. § 53-10-309 requires the CSMD Committee to file an annual report with the Health and Welfare Committee of the Senate and the Health Committee of the House of Representatives starting on or by February 1, 2008 and each year thereafter to include a monthly analysis about tracking the individuals or entities that access the database and the security measures taken to ensure that only authorized persons or entities access the database. This report is submitted in compliance with these reporting mandates.

## Goals for 2015

- CDC Grant – In September, 2014, TDH was awarded a grant from the Centers for Disease Control and Prevention (CDC) to help fund epidemiology studies pertaining to the nation’s prescription drug overdose epidemic. Funding for this initiative, “Prescription Drug Overdose: Boost for Prevention” (PDO:Boost), was awarded to five states.
  - The funding will support three full-time staff (two epidemiologists and one Clinical Application Coordinator) for three years, to work on data analyses to support Tennessee’s response to the Prescription Drug Overdose (PDO) problem, and learn lessons which can be shared with other states and federal agencies as they address the epidemic in their own jurisdictions.
  - Projects will include assessment of data-driven indicators for high-risk prescribing behaviors on the part of patients, pharmacies and prescribers; linkage of CSMD data with other large databases (such as the state’s Hospital Discharge Database, Vital Statistics, Professional Licensure Database, Worker’s Compensation, and clinical data) to determine correlation with morbidity and mortality; assessments of the effectiveness of legislative and programmatic interventions implemented in recent years; and performance of a case-control study to determine clinical and social risk factors for PDO.
- Improve the value of recent enhancements – continue to educate the prescriber and dispenser community on the recent enhancements to the CSMD such as MME Calculator, NAS, Clinical Risk Indicators (high risk patients), and provider practice versus peers reports.
- Develop New Enhancements – better utility for Law Enforcement, easier CSMD use in Emergency Departments, better integration with TennCare, and develop better models for high risk patients, prescribers and dispensers.
- Expand interstate data sharing – during 2015, the CSMD program will work towards adding North Carolina and Alabama to the CSMD Interstate data sharing functionality to the CSMD.
- Dispenser Reporting – educate and monitor to assure dispensers are ready for daily CSMD reporting in 2016.

## Findings and Recommendations

The marked increases of the number of both authorized users and patient history reports requested from 2012 to 2014 indicate an increased use of the database by prescribers and dispensers. Since 2010, we have improved the ratio of number of prescriptions entered into the CSMD per request for patient reports from 13.8:1 to 3.7:1 for 2014. Much of this increase in utilization of the CSMD can be attributed to passage and implementation of the Prescription Safety Act of 2012. The data as a whole indicates that health care providers are using the database for its intended purpose-tailoring patient treatment plans, relative to cumulative controlled substance usage. It also indicates that dispensers are increasingly relying on the database as a tool used to detect the abuse and misuse of controlled substances and also as a tool to better treat the patient in providing competent, quality care.

In 2014, CSMD staff conducted a brief survey of prescriber and dispenser database users with over 1,900 prescribers and almost 600 dispensers responding to the survey. A summary of the results is included below:

### 2014 Prescriber User Survey

As a measure of satisfaction with improvements to the CSMD, a survey of prescribers was conducted in 2014 with greater than 1,900 responding, with the following notable responses:

- 76% use the CSMD at least monthly;
- 67% of responders have changed a treatment plan after viewing a CSMD report;
- 81% report discussing the CSMD report with their patient and 41% do so somewhat to very often;
- 34% of responders are more likely to refer a patient for substance abuse treatment ([Figure 10](#));
- 86% of respondents report that the CSMD is useful for decreasing doctor shopping ([Figure 9](#)); and
- 41% report that they are less likely to prescribe controlled substances after checking the CSMD ([Figure 8](#)).

### 2014 Dispensers User Survey

- 88% use the CSMD at least monthly;
- 69% of responders communicate with the prescriber after viewing a CSMD report;
- 66% report discussing the CSMD report with their patient and 34% do so somewhat to very often
- 52% of responders are more likely to communicate with the prescriber regarding a patient with potential for referral to substance abuse treatment ([Survey Response](#));
- 85% of respondents report that the CSMD is useful for decreasing doctor shopping ([Survey Response](#)); and
- 81% report that they are less likely to fill a prescription after checking the CSMD ([Survey Response](#)).

In 2014, the system was up and functional 99.8% of the year. The system did have a 0.2% downtime for the year. These downtimes were isolated to three separate days. The last day of downtime was in July 2014 for the year. During 2014, prescribers and dispensers survey results demonstrated that 76% of prescribers and 79% of dispensers state that the CSMD system typically provides a patient report in less than 10 seconds after submitting a query.

As discussed previously, the number of high-utilization patients is decreasing. However, focus should remain on those patients who continue to utilize multiple providers, as they are at an increased risk of overdose or are more likely to divert controlled substances. Providers may use the database information to either refuse to prescribe or dispense a duplication of drug therapy or they may alter the patient's treatment plan accordingly.

The new data indicates that a much greater number of practitioners registered to use the database in 2014 (an increase of 4,069 users). Work will continue with all stakeholder licensing boards to ensure all healthcare providers who should be registered users of the CSMD take advantage of this valuable tool. There was a corresponding increase in the number of patient reports requested by healthcare providers (5,062,732 vs. 1,861,485 in 2012). The Department is pursuing options to make utilization of the CSMD more convenient by incorporating the query into the workflow of healthcare practitioners. In 2014, there were 6 states participating

in our interstate data sharing program. The TDH and CSMD Committee are currently pursuing additional states to share data with in 2015 and it is believed that this will decrease the number of doctor shoppers who seek medications across multiple jurisdictions.

The number of prescriptions reported to the CSMD decreased from 18,568,200 in 2013 to 18,397,382 in 2014. To help measure CSMD effectiveness, additional focus has been placed on analysis of MME per patient and prescription as these measures may normalize the variability introduced when merely analyzing the total number of prescriptions reported to the CSMD. This logic has been added to CSMD patient reports to include the patient's current MME. This feature of the patient report is a quantification of MME for all opioid prescriptions which are "active" (based on fill date and day supply) standardized to an equivalent dose of morphine. This standardization of opioid dose aids in determining opioid exposure and shaping the clinical decision-making process. In 2014, Tennessee had for the first time a decline in overall controlled prescriptions with a decline in opioid prescriptions and more importantly an impressive decline in MME of 4.6% compared to 2013.

The increased and appropriate usage of the database may be partially attributed to the efforts of the TDH to instruct and guide health care providers about the operations and the benefits of the CSMD. The CSMD leadership team has presented to professional organizations, to medical practice groups and to pharmacists state-wide through continuing education programs. The TDH's Medical Director of Special Projects has been throughout the medical community and has travelled throughout the state speaking to addiction and rehabilitation centers, various state medical associations, Colleges of Medicine and Nursing, community drug coalitions, and law enforcement groups.

The CSMD Committee and TDH are dedicated to using the database in innovative ways. Some areas of consideration are correlation of overdose data with CSMD. The purpose is to attempt to develop predictors of prescription overdose and overdose deaths for educational purposes. The CSMD Committee is also dedicated to analyzing data for overprescribing and over dispensing and continues to look for new ways to identify and evaluate those practices. The CSMD Committee will also continue to refer those who are identified as outliers to the appropriate board for disciplinary consideration as well as seek out opportunities to enhance the database and optimize staffing to increase its utility as an educational and regulatory tool.

## Members of the CSMD Committee

Member Name	Board
Katherine N. Halls, DDS	Board of Dentistry
Michael J. Baron, MD	Board of Medical Examiners
Maegan Carr Martin, JD	Board of Medical Examiners Executive Director
Brent Earwood, APN, CRNA	Board of Nursing
Richard C. Orgain, OD	Board of Optometry
Donald Polk, DO	Board of Osteopathy
Jason Kizer, PharmD	Board of Pharmacy
Reggie Dilliard, D.Ph.	Board of Pharmacy
David J. Sables, DPM	Board of Podiatry
Kim Johnson, DVM	Board of Veterinary Medical Examiners
Omar Nava, PA-C	Committee on Physician Assistants
Rosemarie Otto	Health Related Boards Director
Patricia Eller	Public Member Board of Medical Examiners
Joyce McDaniel	Public Member Board of Pharmacy

## Appendix

### Reference Tables

Table 1. Number of Registered Users of CSMD, 2010 – 2014\*

Year	Registrants	Change (%)
2010	13,182	-
2011	15,323	16.2
2012	22,192	44.8
2013	34,802	56.8
2014	38,871	11.7

\*VA registrants were included in 2013 and 2014.

Table 2. Number of Requests from CSMD, 2010 – 2014\*

Year	Healthcare Providers	Law Enforcement	Total	Change (%)
2010	1,200,435	N/A	1,200,435	-
2011	1,486,932	551	1,487,483	23.9
2012	1,861,485	2,565	1,864,050	25.3
2013	4,497,866	1,938	4,499,804	141.4
2014	5,062,732	2,115	5,064,847	12.6

\*VA data included in 2013 and 2014.

Table 3. Number of Prescriptions of Controlled Substances Dispensed and Reported to CSMD, 2010 – 2014

Year	Number of Prescription	Change (%)
2010	16,545,357	-
2011	18,203,816	10.0
2012	18,476,714	1.5
2013	18,568,200	0.5
2014	18,397,382	-0.9

Table 4. Number of Prescriptions of Controlled Substances Dispensed and Reported to CSMD by Class of Controlled Substances, 2010 – 2014

Year	Opioid	Change (%)	Benzodiazepines	Change (%)	Muscle Relaxant	Change (%)	Other	Change (%)
2010	8,162,110	-	3,955,346	-	11,708	-	4,416,193	-
2011	9,034,582	10.7	4,161,215	5.2	301,084	2471.6	4,706,935	6.6
2012	9,279,700	2.7	4,070,716	-2.2	387,571	28.7	4,738,727	0.7
2013	9,221,022	-0.6	4,097,947	0.7	329,447	-15.0	4,919,784	3.8
2014	8,823,317	-4.3	4,082,123	-0.4	254,903	-22.6	5,237,039	6.4

Table 5. The Top 10 Most Frequently Prescribed Controlled Substance Products in 2014

Name of Product	Number of Prescription	Percentage
Hydrocodone Products	4,080,969	32.1%
Alprazolam	1,867,999	14.7%
Oxycodone Products	1,710,658	13.4%
Zolpidem	1,142,245	9.0%
Tramadol	909,195	7.1%
Clonazepam	862,187	6.8%
Lorazepam	655,779	5.2%
Diazepam	520,041	4.1%
Phentermine Products	512,925	4.0%
Morphine Products	459,598	3.6%

Table 6. Comparison of Number of Overall Prescriptions, Number of Prescription of Opioids and Their Morphine Milligram Equivalents Dispensed and Reported to CSMD, 2010 – 2014

Year	Overall Prescriptions of Controlled Substances	Number of Opioid Prescriptions	Morphine Milligram Equivalents
2010	16,545,357	8,162,110	8,793,992,411
2011	18,203,816	9,034,582	9,628,096,974
2012	18,476,714	9,279,700	9,881,362,610
2013	18,568,200	9,221,022	9,828,521,165
2014	18,397,382	8,823,317	9,381,171,456

**Table 7. Number of Prescription of Buprenorphine Products and Their Amount of Morphine Milligram Equivalents (MME) Dispensed and Reported to CSMD, 2010 – 2014**

Year	Prescription of Buprenorphine	Change (%)	Amount of MME of Buprenorphine	Change (%)
2010	277,531	-	571,864,052	-
2011	375,044	35.1	655,838,174	14.7
2012	515,324	37.4	718,140,997	9.5
2013	656,926	27.5	928,409,853	29.3
2014	763,555	16.2	1,143,850,785	23.2

**Table 8. Number of Prescription of Methadone Products and Their Morphine Milligram Equivalents Dispensed and Reported to CSMD, 2010 – 2014**

Year	Prescriptions of Methadone	Change (%)	MME of Methadone	Change (%)
2010	78,551	-	373,562,223	-
2011	80,650	2.7	380,250,036	1.8
2012	78,388	-2.8	361,932,744	-4.8
2013	72,572	-7.4	311,297,171	-14.0
2014	62,235	-14.2	250,525,586	-19.5

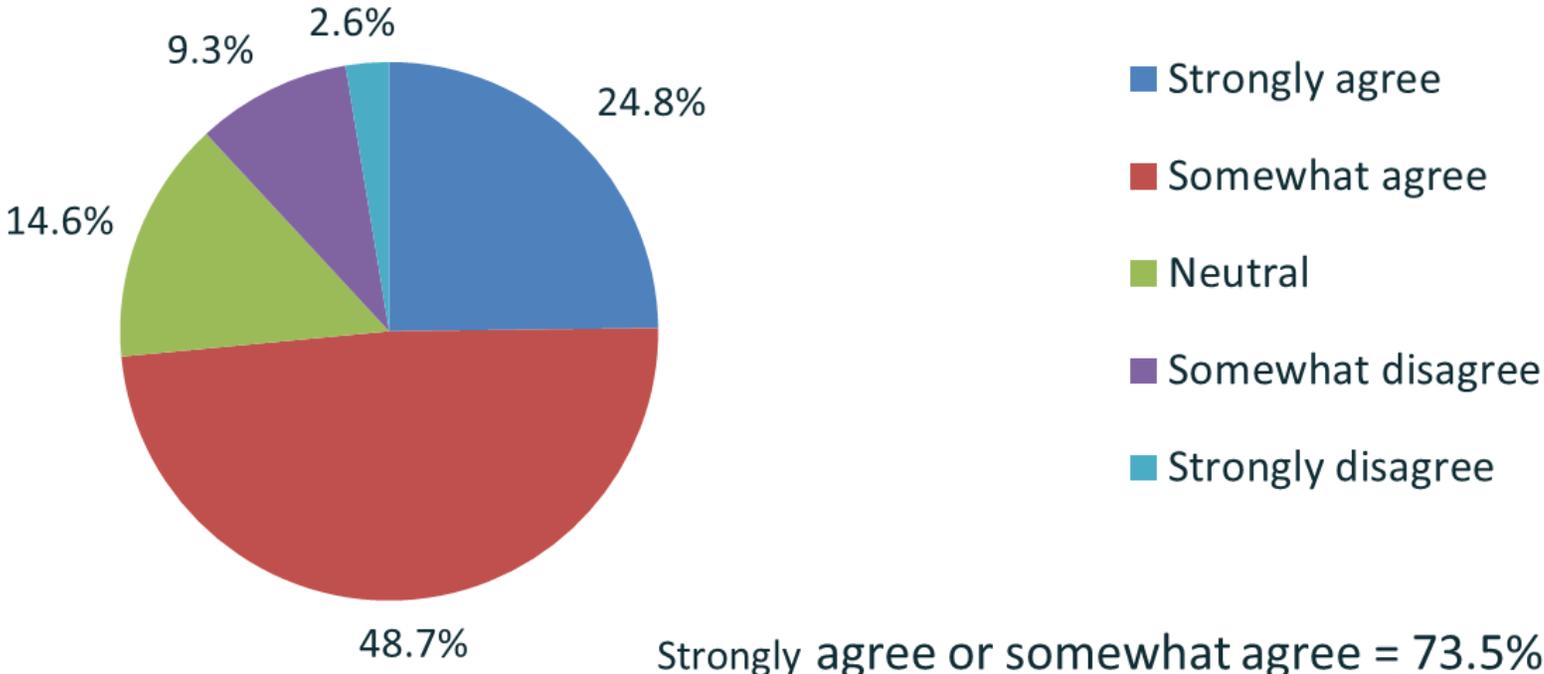
**Table 10. Number of Doctor-Pharmacy Shoppers Identified in CSMD by Quarter, 2010 – 2014\***

Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total	Change (%)
2010	1,695	2,005	2,127	1,830	7,657	-
2011	1,950	2,413	2,515	2,352	9,230	20.5
2012	2,246	2,218	2,261	1,940	8,665	-6.1
2013	1,785	1,533	1,533	1,335	6,186	-28.6
2014	1,374	1,404	1,278	1,307	5,363	-13.3

**\*5 prescribers or more and 5 pharmacies or more in 3 months**

Survey

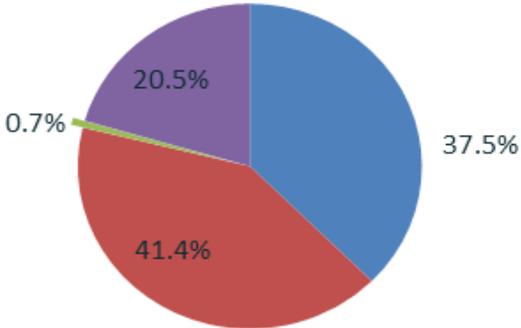
**The data contained in the CSMD is an accurate representation of a patient’s controlled substance usage.**



**Prescribers are confident that the CSMD is accurate.**

Source 2014 CSMD Prescriber Survey

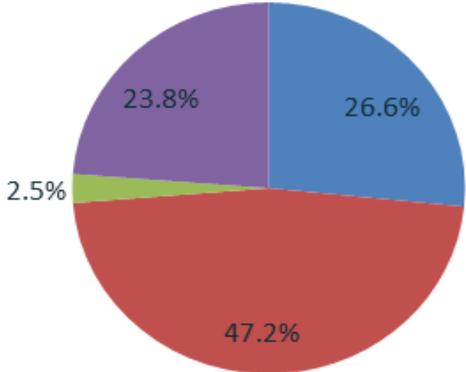
**How has checking the CSMD changed the way you practice medicine?**



- No Change
- Less likely to prescribe controlled substances
- More likely to prescribe controlled substances
- Other

Prescribers are less likely to prescribe opioids after using the CSMD.

**How has checking the CSMD changed the way you practice pharmacy?**

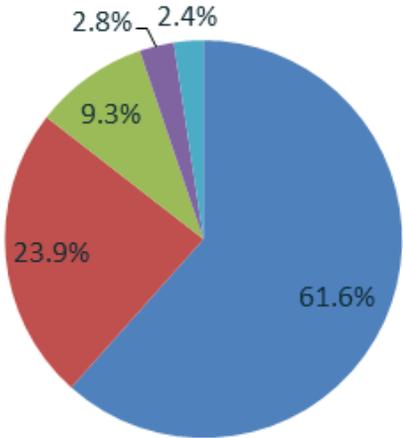


- Have not change the way I practice pharmacy
- Less likely to dispense Controlled Substance
- More likely to dispense Controlled Substances
- Other

Pharmacy are less likely to dispense opioid after checking the CSMD.

Source: 2014 CSMD Prescriber and Dispenser Survey

**The CSMD is useful for decreasing the incidence of doctor shopping.**

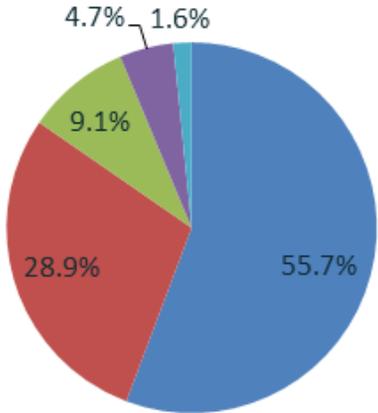


■ Strongly agree    ■ Agree    ■ Neutral  
■ Disagree    ■ Strongly disagree

Strongly agree or agree = 85.5%

Prescribers think the CSMD helps them decrease doctor shoppers.

**The CSMD is useful for decreasing the incidence of doctor shopping.**



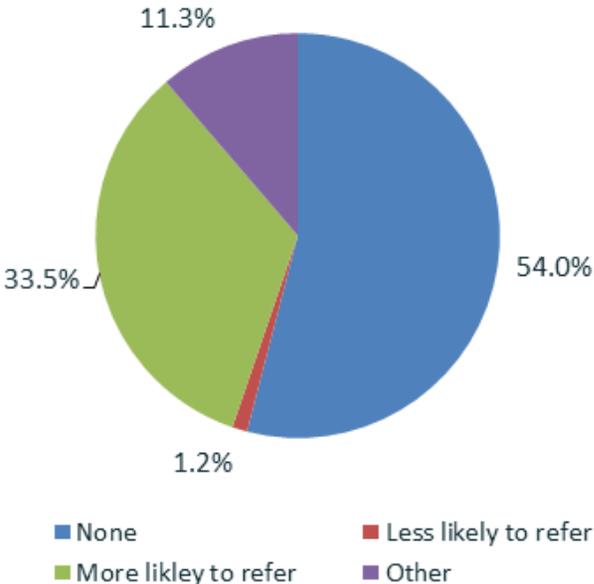
■ Strongly Agree    ■ Somewhat Agree  
■ Neutral    ■ Somewhat Disagree  
■ Strongly disagree

Strongly agree or agree = 84.6%

Pharmacies think the CSMD helps them decrease doctor shoppers.

Source: 2014 CSMD Prescriber and Dispenser Survey

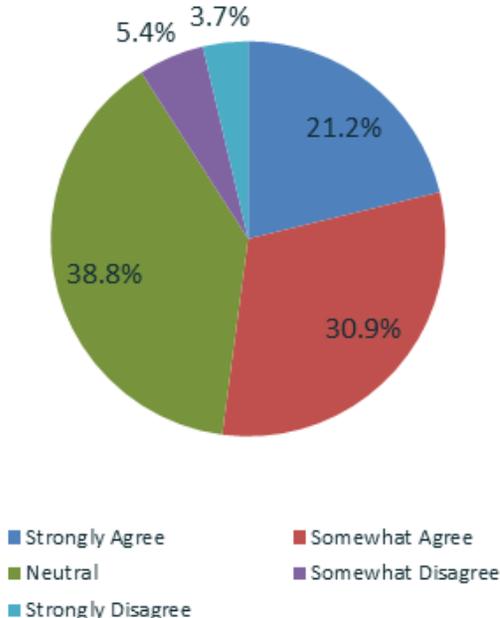
**Has checking the CSMD changed your practice of referring patients for substance abuse treatment?**



Prescribers are more likely to refer patients for substance abuse treatment.

Source: 2014 CSMD Prescriber and Dispenser Survey

**The CSMD has changed my practice of communicating with the physician regarding a patient whom I believe needs referred for substance abuse treatment?**



## Acronyms

Centers for Disease Control and Prevention	CDC
Controlled Substance Monitoring Database	CSMD
Controlled Substance Monitoring Database Committee	CSMD Committee
Morphine Milligram Equivalents	MME
Neonatal Abstinence Syndrome	NAS
Prescription Drug Overdose	PDO
Tennessee Department of Health	TDH
Veterans Affairs	VA

**Statement of compliance with 2012 Tenn. Pub. Acts, ch. 1061 (the “Eligibility Verification for Entitlements Act”) as required by Tenn. Code Ann. § 4-58-106(b).**

The Tennessee Department of Health, including local health departments, boards and commissions, has implemented protocols and policies to verify that every adult applicant for “public benefits” is a United States citizen or a “qualified alien”, within the meaning of Chapter 1061.

February 1, 2015