Abstract

California’s project is “Medication Assisted Treatment (MAT) Expansion”. California will strategically focus on populations with limited MAT access including rural areas, American Indian and Native Alaskan (AI/NA) tribal communities and statewide access to buprenorphine. The grant focuses on two projects: the California Hub and Spoke System (CA H&SS) and the Tribal MAT Project.

The MAT Expansion Project complements other collaborative efforts California has implemented to expand MAT access and reduce opioid related deaths in California. The MAT Expansion Project is projected to serve 20,892 over the two-year grant period. The goals of the project are to implement the Hub and Spoke model in various areas throughout California which will improve access to Narcotic Treatment Programs (NTPs), Medication Units in counties with the highest overdose rates. The MAT Expansion Project will also increase the availability of buprenorphine statewide and increase MAT utilization for tribal communities.

California’s H&SS will be based on Vermont’s current Hub and Spoke model. California’s system will be built off of the strengths of the NTPs which will act as the Hubs and the physicians who prescribe buprenorphine in office-based settings which will function as the Spokes. Hubs will serve as the regional consultants and subject matter experts on opioid dependence and treatment. Hubs will also dispense methadone and buprenorphine, provide care to the clinically complex buprenorphine patients, will be able to manage buprenorphine inductions when needed, and will also provide support to the Spokes when they need clinical or programmatic advice. Spokes will provide ongoing care for patients with milder addiction (managing both induction and maintenance). A Spoke will be comprised of at least one prescriber and a MAT team to monitor adherence to treatment, coordinate access to recovery supports, and provide counseling. Patients will be able to move between the Hub and Spoke based on clinical severity.

The Tribal MAT Project will create a project designed to meet the specific MAT needs of California’s American Indian and Native Alaskan tribal communities. The California Department of Health Care Services (DHCS) will meet with the tribal stakeholders to design the project. DHCS will include culturally appropriate treatment services in the Tribal MAT Project.

The MAT Expansion Project will also fund prevention activities such as prevention specialists, provision of naloxone, coordination with local opioid coalitions, and training conducted by the University of California, Los Angeles (UCLA) and the California Society of Addiction Medicine (CSAM). In addition, the project will conduct a statewide needs assessment and create a strategic plan. The CA H&SS will also participate in a Learning Collaborative which is a vehicle to create the connection that is needed to have an effective network with bi-directional patient movement and team care. UCLA will conduct an evaluation of project efforts which will include the required federal performance measures in addition to other data elements.
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Section A: Population of Focus and Statement of Need

Section A.1.: Communities of Focus at Highest Risk for Opioid Use Disorder (Demographic Profile)

California’s communities of focus at the highest risk for Opioid Use Disorder (OUD) fall into three categories. The first community of focus are counties without a NTP in their geographic area. These communities currently have no access to methadone treatment services and very limited access to buprenorphine. The second community of focus is inclusive of the entire state of California for improved access to buprenorphine services. California’s overall rate of total dispensed prescriptions for buprenorphine is statistically low compared to the rest of the nation. The third community of focus is the American Indian and Native Alaskan (AI/NA) tribes. The AI/NA communities have significant challenges in accessing MAT services and their issues with the opioid epidemic are also on the rise. The population focus for this grant is extensive due to the limited access to MAT and the geographical size of California.

Figure 1: California 2014 Overdose Death Rates

Data Source: California Department of Public Health
As Figure 1 demonstrates, while California’s overall opioid related death rate is low compared to other states, there is tremendous variation, with counties such as Lake experiencing prescribing rates and death rates among the worst in the country. One significant reason for this disparity is the geographical challenges in accessing MAT in Lake and other rural counties.

Using a variety of data sources, the State Epidemiology and Outcome Workgroup (SEOW), with assistance from the California Prescription Drug Overdose Prevention Initiative, has identified and continues to monitor the counties most impacted by the prescription drug epidemic based on self-report of consumption, prescribing and dispensing data, opioid pharmaceutical and heroin deaths, and non-fatal opioid-related emergency department (ED) visits. As the following “hot spot” maps display using three separate data sources, there is a clear geographic pattern identifying the highest burden areas for the prescription drug epidemic in California. These “heat” maps indicate:

- Past year non-medical use of prescription drugs is highest in northern California rural regions [National Survey on Drug Use and Health (NSDUH) - Region 1R (Humboldt, Lake, Mendocino, Plumas, Shasta) = 5.71%; Region 12R (Tuolumne) = 5.59%].
- The number of opioid prescriptions per 1,000 residents is highest in the rural northern counties of California (DOJ CURES); and
- The rate of prescription opioid related deaths per resident is highest in these same rural northern California counties, where there are sufficient numbers to map (CDPH Death files).

**Figure 2: Nonmedical Use of Pain Relievers in the Past Year, Persons Aged 12 or Older**

*Data Source: 2010, 2011 and 2012 National Survey on Drug Use and Health*
**Figure 3:** Number of Opioid Prescriptions per 1,000 Residents by County, California 2013

Data Source: California Department of Justice, Controlled Substance Utilization Review and Evaluation System

**Figure 4:** Prescription Opioid-Related Deaths per 100,000 by County, California, 2011-2014

Data Source: Death Statistical Master and Multiple Causes of Death Files, California Department of Public Health

Opioid misuse/addiction in California is impacting communities across the state and putting a strain on California’s EDs. The data from ED admissions displayed below show: 1) increasing statewide trends for specific prescription and other drug substances; and 2) a similar pattern for higher rural rates of opioid poisoning ED visits. Table 1 reflects a 97% increase in ED visits due to heroin from 2010 to 2014. ED visits due to opioids altogether have increased by 44%.
Appropriate MAT services can reduce opioid-related ED visits in addition to relieving other societal and financial burdens on the community.

**Table 1: California ED Visits Related to Selected Drugs Throughout the State**

<table>
<thead>
<tr>
<th>Data Year</th>
<th>All Opioids</th>
<th>Opioid Subcategories**</th>
<th>Amphetamines</th>
<th>Sedatives</th>
<th>Cannabis</th>
<th>Cocaine</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Heroin</td>
<td>Methadone</td>
<td>Other Opioids</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>8,134</td>
<td>1,343</td>
<td>454</td>
<td>6,368</td>
<td>6,142</td>
<td>7,830</td>
</tr>
<tr>
<td>2011</td>
<td>9,109</td>
<td>1,706</td>
<td>482</td>
<td>6,955</td>
<td>6,341</td>
<td>8,102</td>
</tr>
<tr>
<td>2012</td>
<td>9,929</td>
<td>2,078</td>
<td>444</td>
<td>7,439</td>
<td>8,408</td>
<td>8,135</td>
</tr>
<tr>
<td>2013</td>
<td>10,728</td>
<td>2,317</td>
<td>441</td>
<td>8,017</td>
<td>10,390</td>
<td>7,671</td>
</tr>
<tr>
<td>2014</td>
<td>11,683</td>
<td>2,651</td>
<td>467</td>
<td>8,623</td>
<td>13,032</td>
<td>8,007</td>
</tr>
<tr>
<td>Total</td>
<td>41,449</td>
<td>8,752</td>
<td>2,288</td>
<td>31,054</td>
<td>38,371</td>
<td>31,915</td>
</tr>
<tr>
<td>Increase</td>
<td></td>
<td>44%</td>
<td>97%</td>
<td>3%</td>
<td>35%</td>
<td>112%</td>
</tr>
</tbody>
</table>

**Opioid subcategories may total more than all opioids due to use of principal diagnosis or principal E-code. California Office of Statewide Health Planning and Development, Emergency Department Data. Data Source: California Department of Public Health, Safe and Active Communities Branch, October 2015.**

**Figure 5: Drug-poisoning Death Rates, California, 2000-2014**

![Drug-poisoning Death Rates](https://data.cdc.gov/NCHS/cal3n83-jejj)

Table 2 demonstrates that the drug poisoning death rates have been on the rise in California since 2001. ED visits for opioid poisoning are high in both rural and urban areas, as demonstrated in Table 2. However, the majority of the counties with the highest ED poisoning rates are rural counties, and only two (San Francisco and Santa Cruz) out of the 12 counties have NTP services for methadone located within the county boundaries, and buprenorphine access is inadequate to meet the demand.

**Table 2: California’s Highest Rates ED Visits for Opioid Poisoning**

<table>
<thead>
<tr>
<th>County</th>
<th>Number</th>
<th>Rate (per 100,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plumas</td>
<td>61</td>
<td>61.7</td>
</tr>
<tr>
<td>Humboldt</td>
<td>316</td>
<td>46.3</td>
</tr>
</tbody>
</table>
Another population impacted by the opioid epidemic in California is the uninsured. Since the implementation of the Affordable Care Act (ACA) in 2014, the uninsured rate in California dropped by nearly half, from 16% in 2013 to 9% in 2015. However, despite the significant reduction in uninsured, 2.9 million Californians lack coverage. This grant opportunity will increase treatment access for this population.

Paul Fronstin of the Employee Benefit Research Institute, provides a look at the uninsured two years after full implementation of the ACA (California's Uninsured: As Coverage Grows, Millions Go Without, 2016). Key findings include:

- The drop in the uninsured rate was mainly due to a seven-percentage point increase in individually purchased insurance coupled with a five-percentage point increase in Medi-Cal enrollment.
- One in three of California's uninsured had annual incomes of less than $25,000. At this income level, people are potentially eligible for Medi-Cal.
- Of the state's remaining uninsured, one in four were age 25 to 34, one in three were noncitizens, and more than half were Latino.
- 62% of the uninsured were employed. Of the 1.8 million uninsured workers, 44% worked in firms with fewer than 50 employees.
- Fewer Californians cited "lack of affordability" as the main reason for going without health insurance in 2015 compared to 2014.

<table>
<thead>
<tr>
<th>State</th>
<th>2015 Rankings of Uninsured (most to least)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Texas</td>
<td>17.7%</td>
</tr>
<tr>
<td>2. Georgia</td>
<td>15.9%</td>
</tr>
<tr>
<td>3 Florida</td>
<td>15.3%</td>
</tr>
<tr>
<td>4 Oklahoma</td>
<td>15.2%</td>
</tr>
<tr>
<td>5 Mississippi</td>
<td>14.8%</td>
</tr>
<tr>
<td>6 New Mexico</td>
<td>14.5%</td>
</tr>
<tr>
<td><strong>29 California</strong></td>
<td><strong>8.6%</strong></td>
</tr>
<tr>
<td>51 District of Columbia</td>
<td>4.6%</td>
</tr>
</tbody>
</table>

**Table 3: California’s 2015 Uninsured Demographics**

Data Source: California Office of Statewide Health Planning and Development, Emergency Department Data

<table>
<thead>
<tr>
<th>State</th>
<th>CA’s Nonelderly Population: 33.9M</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CA’s Unemployment Rate*: 6.2%</td>
</tr>
<tr>
<td></td>
<td>*Reflects annual averages, not seasonally adjusted</td>
</tr>
</tbody>
</table>

Data Source: California Employment Development Department, Bureau of Labor Statistics
Figure 6 shows the disparities between age groups and insurance groups. It also demonstrates how ACA has impacted California with the increase in publicly funded services.

**Figure 6: California Age Group and Insurance Status**

Another population of focus in California will be the AI/AN tribes, as the death rate from unintentional drug poisoning is almost twice as high in the AI/AN population compared to the population nationally. California’s diverse tribal health system has substantial variability in terms of access to treatment, and the importance of integrating cultural and spiritual practices into treatment is increasingly recognized as a factor in treatment success. California is home to approximately 115 federally recognized AI tribes, with the largest population of individuals self-identified as AI/AN in the nation; approximately 723,225 identify as AI/AN alone or in combination with another race, representing 14% of the national AI/AN population (T. Norris, P. Vines, E. Hoeffel, American Indian and Alaskan Native Population: 2010, 2010 Census Briefs, January 2012). While some California counties have strategic efforts to reduce disparities for the AI/AN population, none of the efforts focus on the need to improve access to MAT.

DHCS’ California Outcomes Measurement System for Treatment (CalOMS-Tx) collects data on all treatment clients receiving substance use disorder (SUD) treatment services from publicly monitored/funded treatment programs. CalOMS-Tx collects admissions data, including race by county. In Fiscal Year 2014-15, there were approximately 210,000 individuals (unique clients) served in California and of those, 3,640 reported being AI/AN (about 1.7%). Counties vary substantially in the percent of clients reporting they are AI/AN, from less than one percent in several counties, to over 10% in a number of others. The largest percentage of AI/AN clients served were in Inyo (14%), Mariposa (13.7%), Humboldt (12.7%), Mendocino (12.3%), and Del Norte (10.5%) counties.
As with all communities, drug overdose deaths from opioid misuse are of significant concern to tribal communities nationwide. The Northwest Portland Area Indian Health Board reported that from 2006 to 2012, a total of 10,565 deaths occurred among AI/AN residents in the states of Idaho, Oregon, and Washington. Drug overdoses accounted for 4.3% (450) of all deaths among Northwest AI/AN individuals and 1.7% (9,868) of all deaths among non-Hispanic whites (NHWs). Of the drug overdose deaths, 65.3% (294) of AI/AN deaths and 69.3% (6,837) of NHW deaths were from prescription drugs. Furthermore, of the prescription drug overdose deaths, 77.2% (227) of AI/AN deaths and 75.4% (5,157) of NHW deaths were from opioid overdoses (The National Tribal Behavioral Health Agenda, December 2016).

As outlined in the National Tribal Behavioral Health Agenda December 2016, published in collaboration with SAMHSA and the Indian Health Service, it is recognized that there are significant health disparities regarding the health status of AI/AN people and the efforts to reduce these disparities are only marginally effective. While research and programs consistently recommend that prevention and health care programs also implement traditional practices and philosophies, fiscal and programmatic barriers exist that prevent the successful implementation of culturally tailored health promotion and healing interventions. The MAT Expansion Project will address some of these barriers and dedicate a portion of the grant resources toward prevention, treatment and recovery services for OUD.

A.2.: Access, Service Use and Outcomes for Population of Focus

California will utilize this grant funding to improve MAT access across California. Specifically, priority funding will be granted to rural counties that currently have limited access to MAT services. Since half of California counties do not have a NTP provider within their county, and the rest of California has limited utilization of buprenorphine, improving access to MAT is a priority for California.

California has a strong desire to increase utilization of buprenorphine. Improving access to buprenorphine brings about different challenges than methadone. To improve utilization in the state’s Medicaid Program (Medi-Cal), California removed the Treatment Authorization Request (TAR) for buprenorphine in 2015. With the help of the California Health Care Foundation and SAMHSA, efforts to increase use of MAT in primary care have been launched, including learning collaboratives for community health centers and Data 2000 waiver trainings. Medicaid funding for buprenorphine in NTP settings has been a barrier historically, but this will be resolved for the California counties that will be voluntarily participating in the state’s 1115 Drug Medi-Cal Organized Delivery System (DMC-ODS) waiver that creates a SUD organized delivery system of care.

While California continues to work on improving access in rural counties with limited MAT services, there are still fundamental shifts which need to occur before MAT, especially buprenorphine, is more available statewide. The changes still needed include the reduction of the MAT stigma in the treatment community and concern by local elected officials and public safety organizations around SUD treatment, education regarding the effectiveness of MAT, increased assistance and support for physicians (especially in primary care settings) who are treating patients with addiction, and the promotion of coordinated care. Other barriers for MAT
services are the willingness of primary care providers to prescribe buprenorphine and the process of induction onto buprenorphine (managing withdrawal symptoms as patients start buprenorphine treatment), reimbursement challenges, concern about medication diversion, lack of administrative support, and lack of psychosocial services for patients (Becker & Fiellin, 2006; Kissin et al., 2006; Barry et al., 2008; Netherland et al., 2009).

In the state of Vermont, these issues were addressed through developing a system of care to expand MAT by creating organized regional networks of opioid treatment referred to as the Hub and Spoke model (Simpatico, 2015). Elements of this model are:

1. Hub clinics provide specialized expertise in opioid treatment. These Hub clinics: assess opioid users; determine the most optimal medication (methadone, buprenorphine or naltrexone); induct opioid users onto buprenorphine; provide ongoing care; and transfer stable patients back to primary care.

2. Spokes are a regional network of buprenorphine waived physicians working in primary care settings (i.e: Federally Qualified Health Centers (FQHCs), primary care group practices linked to a regional Hub clinic, or SUD provider with waivered physicians).

3. Regular regional interactive forums (learning collaboratives) where members of the regional Hub and Spoke network develop collaborative working relationships, review data on the functioning of the network, and problem solve obstacles to network functioning.

4. MAT support teams. Similar models for other chronic care conditions have proven successful. These are teams of behavioral health staff (counselors, social workers, nurse) who provide support to medical doctors (MDs) and provide behavioral treatment to augment the medical care and medication provided by the waivered MDs.

From 2013 to 2014, while the overdose death rates in other states (and the US overall) continued to climb, Vermont’s death rate dropped almost eight percent (Figure 7), and 70% of Medicaid beneficiaries in Vermont with OUD receive MAT through their Hub and Spoke model (Figure 8). Through the implementation of the CA H&SS, California expects to increase the number of Medicaid beneficiaries treated with MAT, leading to reduced overdose death rates.

**Figure 7: Comparison of State Overdose Deaths**

![Figure 7: Comparison of State Overdose Deaths](image)

*Data Source: Vermont Department of Health*
A.3.: Nature of Opioid Use Disorder Problem (Available Resources and Service Gaps)

The opioid epidemic is a nationwide problem. The intent of the MAT Expansion Project is to improve access to MAT in order to increase utilization of treatment and reduce the opioid overdose deaths. Without treatment, individuals with an OUD are at high risk for overdose and death. Over the past several years, California has been taking aggressive action to reduce the impact of the opioid epidemic on several fronts. The MAT Expansion Project will be integrated into the existing framework of various opioid projects to continue these improvements in MAT. Coordination with multiple efforts including the SAMHSA, Department of Justice and Centers for Disease Control and Prevention (CDC) funded projects will advance substance misuse prevention and supplement current opioid treatment and recovery activities in California.

California has been addressing opioid prevention and misuse for many years. In 1939, California was the first state to establish a prescription drug monitoring program known as Controlled Substance Utilization Review and Evaluation System (CURES). Recent legislation requires physicians prescribing opioids to use the CURES database. There are also multiple prevention, treatment and recovery projects occurring throughout the state that are creating local opioid coalitions, targeting OUD prevention activities for youth, training physicians on best practices for prescribing opioids, enhancing the CURES system, implementing a comprehensive continuum of care in California which includes recovery services, increasing the distribution of naloxone to communities, and other statewide and local projects. While these efforts have been commendable, DHCS believes utilization of MAT can be increased.
Statistics demonstrate that California’s recent statewide rates of opioid overdoses deaths are lower compared to other states that are at crisis levels. However, looking at county specific overdose rates, the ten worst death rate counties are worse than Kentucky and Rhode Island – states hardest hit by the epidemic, and three counties have worse rates than West Virginia (see chart below). This indicates that these counties have much higher rates of overdose than the state average, approaching those of states in New England and Appalachia.

**Table 4: 2013 Drug Overdose Deaths by CA County and Other States**

<table>
<thead>
<tr>
<th>Location</th>
<th>2013 drug overdose deaths per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lake County</td>
<td>46.3</td>
</tr>
<tr>
<td>Plumas County</td>
<td>41.1</td>
</tr>
<tr>
<td>Lassen County</td>
<td>31.5</td>
</tr>
<tr>
<td>West Virginia</td>
<td>30.7</td>
</tr>
<tr>
<td>Sierra County</td>
<td>30.6</td>
</tr>
<tr>
<td>Humboldt County</td>
<td>30</td>
</tr>
<tr>
<td>Trinity County</td>
<td>29</td>
</tr>
<tr>
<td>Del Norte County</td>
<td>28</td>
</tr>
<tr>
<td>Shasta County</td>
<td>28</td>
</tr>
<tr>
<td>Mariposa County</td>
<td>27.6</td>
</tr>
<tr>
<td>Nevada County</td>
<td>26.9</td>
</tr>
<tr>
<td>Kentucky</td>
<td>23.2</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>22.9</td>
</tr>
<tr>
<td>Nevada</td>
<td>22</td>
</tr>
<tr>
<td>California Statewide</td>
<td>11.6</td>
</tr>
</tbody>
</table>

California also has another striking disparity as it relates to the prescription and utilization of buprenorphine. While all FDA-approved medications for MAT are available to California Medicaid beneficiaries, the number of beneficiaries receiving buprenorphine compared to other states is low. As Table 5 shows, the number of buprenorphine Medi-Cal providers in 2015 was 1,406; however, only 8,542 Medi-Cal beneficiaries received the medication; which averages six beneficiaries per prescriber. While buprenorphine is increasingly recognized as first line treatment for OUD, in California one Medi-Cal beneficiary receives buprenorphine for every four patients receiving methadone.
Table 5: California Medicaid (Medi-Cal) Beneficiary Characteristic 2015

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Total Number of Eligible Beneficiaries</th>
<th>Number of Beneficiaries Receiving Buprenorphine</th>
<th>Number of Beneficiaries Receiving Methadone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, Mean</td>
<td>32.8</td>
<td>37</td>
<td>42.6</td>
</tr>
<tr>
<td>Total 12-64 (years old)*</td>
<td>9,429,580</td>
<td>8,542</td>
<td>37,468</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>5,108,171</td>
<td>3,799</td>
<td>15,232</td>
</tr>
<tr>
<td>Male</td>
<td>4,321,409</td>
<td>4,743</td>
<td>22,236</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>2,012,795</td>
<td>5,942</td>
<td>17,922</td>
</tr>
<tr>
<td>Black</td>
<td>748,547</td>
<td>253</td>
<td>3,660</td>
</tr>
<tr>
<td>Hispanic</td>
<td>4,332,640</td>
<td>853</td>
<td>8,954</td>
</tr>
<tr>
<td>Other/Unknown</td>
<td>2,335,598</td>
<td>1,494</td>
<td>6,932</td>
</tr>
<tr>
<td>Geographic Location</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southern</td>
<td>5,974,654</td>
<td>3,254</td>
<td>18,089</td>
</tr>
<tr>
<td>Central</td>
<td>1,648,734</td>
<td>1,474</td>
<td>10,201</td>
</tr>
<tr>
<td>Bay Area</td>
<td>1,522,381</td>
<td>2,170</td>
<td>8,426</td>
</tr>
<tr>
<td>Northern</td>
<td>283,811</td>
<td>1,644</td>
<td>752</td>
</tr>
</tbody>
</table>

*Total Medicaid population certified eligible. Excludes dual eligible

Data Source: Department of Health Care Services

A recent 2016 study conducted by the IMS Institute for Healthcare Informatics, reviewed evidence on state level buprenorphine use and payment types across the nation. As demonstrated in Table 6, several key findings further highlight California’s extremely low utilization of buprenorphine. Despite Medicaid expansion, nine states, including California, have less than 20% of buprenorphine prescriptions provided by Medicaid. California also falls into the category of lower than average buprenorphine use relative to opioid consumption and lower average utilization of public funding. Whereas Vermont has 68% of the Medicaid total dispensed prescriptions (TRx) and 34.3 buprenorphine prescriptions for every 100 opioid prescriptions. Vermont’s level of use is more than six-fold higher than the national average and the level of public funding is two and a half times higher.
While California has historically low utilization rates of buprenorphine, the network of Opioid Treatment Programs, known as NTPs, have provided the majority of MAT services to California. As Table 5 demonstrates in 2015, methadone accounted for 81% of MAT provided in Medi-Cal, through 152 NTPs. While efforts are underway to provide Medicaid coverage for buprenorphine, disulfiram, naloxone and in some instances Vivitrol, implementation will not be completed until later in 2017 and will be limited to the counties in California that voluntarily participate in the state’s 1115 Medicaid waiver.

Another challenge to providing MAT services in California is the statewide availability of NTPs. Figure 9 shows that 28 out of 58 counties do not have a NTP facility in their county, and the counties with the highest opioid overdose death rates do not have NTPs located within their county. Table 4 shows that of all the methadone received by Medi-Cal beneficiaries, only two percent was received in the northern counties (Butte, Colusa, Del Norte, Glenn, Humboldt, Inyo, Lake, Lassen, Mendocino, Modoc, Nevada, Plumas, Shasta, Siskiyou, Tehama, and Trinity). However, Butte County is the only northern county that has a NTP located in their county.

While California has been working to improve access to NTPs through the state’s 1115 demonstration waiver, expanding NTP capacity is a lengthy and often politically sensitive process. Rural areas sometimes do not have the population to justify a full NTP within their area. California has the statutory authority to establish medication units that are linked to the NTP facility. Medication Units (MU) are smaller facilities where their main task is to dispense medications. Patients receive their physical, induction, counseling and other services at the NTP; however, once stabilized, they can receive their medications at the MU in their community. California wants to expand the creation of MUs that work in conjunction with licensed NTPs.

Table 6: 2016 Nationwide Funding and Use of Buprenorphine

<table>
<thead>
<tr>
<th>State</th>
<th>Drug OD Deaths</th>
<th>Rx Opioid use per 1000 pop</th>
<th>Buprenorphine use per 1000 population</th>
<th>Buprenorphine use per 100 Rx Opioid use</th>
<th>Share of TRx</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Commercial</td>
</tr>
<tr>
<td>CA</td>
<td>4,521</td>
<td>466</td>
<td>13</td>
<td>2.7</td>
<td>60.1%</td>
</tr>
<tr>
<td>Vermont</td>
<td>83</td>
<td>596</td>
<td>204</td>
<td>34.3</td>
<td>21.2%</td>
</tr>
<tr>
<td>National Average</td>
<td>_</td>
<td>695</td>
<td>39</td>
<td>5.6</td>
<td>57.1%</td>
</tr>
</tbody>
</table>

Source: IMS Payer Trak, IMS National Prescription Audit, June 2016; Centers for Disease Control and Prevention
Nationally, rural areas have seen a greater shortage in the availability of MAT treatment. However, MAT shortage is seen frequently in urban areas as well. Rural areas also tend to struggle with high rates of opioid dependence along with the sparse treatment options (Office of National Drug Control Policy, 2006; Rosenblum et al., Sigmon, 2014, 2015). California statistics are also comparable to this nationwide statistic.

**Stigma Associated with MAT**
As a part of the CA H&SS, California will also address the other multiple factors identified by the Surgeon General’s report on “Drugs, Alcohol and Health” as factors that limit the widespread use of MAT, such as reinforcing the stigma for individuals with a SUD. As a part of this proposal, stigma-reducing education and training will be provided for all of California’s SUD treatment facilities in addition to other stakeholders impacted by the opioid epidemic.

DHCS has been very public regarding the support of MAT for all individuals with an OUD. DHCS will continue to support MAT as a best practice for OUD treatment and will expand upon current efforts to reduce the stigma associated with this disease, including promoting long-term maintenance treatment. The Surgeon General’s report states that MAT for patients with a chronic OUD must be delivered for an adequate duration in order to be effective. Patients who receive MAT for fewer than 90 days have not shown improved outcomes (Drugs, Alcohol and Health, Surgeon General, 2016). Also in the report, one study suggested that individuals who receive MAT for fewer than three years are more likely to relapse than those who are in treatment for three or more years. These outcomes show that it is essential to improve utilization of MAT while also ensuring that the utilization created for MAT is sustainable. The CA H&SS will do both. The new system will improve access while encouraging local communities to support a long-term sustainable system.
Lack of Appropriate Infrastructure
Improving the infrastructure for providing MAT medications is the central focus of the CA H&SS. Without access to nearby specialists, primary care providers are hesitant to begin the hard work of treating an OUD, and individuals with OUD have limited options. The CA H&SS would work with the California counties without NTP facilities within their county, to overcome barriers that have limited access to date.

As an initial step into a rural county without a NTP provider, DHCS has approved the first California MU which is located in Shasta County. Shasta County residents with an OUD have had to travel daily to the closest NTP location which is in Butte County, a drive of two hours or more. As previously stated, MUs are extensions of licensed NTPs where medication is dispensed daily. This expansion will assist not only Shasta County, but residents from neighboring counties with even farther distances to travel. DHCS plans to expand MUs in other counties with the MAT Expansion Project. By generating the opportunity to create H&SS’s throughout California, especially in underserved areas, DHCS projects that several additional MUs will result from this grant funding. Several of California’s larger NTP providers have already expressed interest in expanding treatment options in the underserved areas; especially where clinics are not currently located.

The CA H&SS will improve an infrastructure that will allow the right medication to be available to the patient, based on need, rather than based on where they live. All Hubs will be required to have both buprenorphine and methadone services, and the Hub support will enable more primary care providers to start managing patients with buprenorphine.

Need for Staff Training/Development and Activities to Promote a Collaborative Network
While it is essential to improve funding, infrastructure and to remove oversight barriers, without adequate staff training and development, improving access to MAT will not be successful. In recent discussions between DHCS and Vermont officials regarding Vermont’s H&S model, Vermont highlighted the importance of staff training and development for the model to be successful. Physician-to-physician training was one component that assisted with their access expansion efforts. This was especially true for rural doctors facing different issues than physicians in urban areas. Finding early adopters in the physician community that wanted to promote the change made it easier for more hesitant doctors to agree to see and treat patients with OUD.

Vermont’s H&S Learning Collaborative played a key role in staff training and development. Starting an H&S system necessitates changes at all levels, including new protocols around medication, counseling, and patient care, as well as, the formation of new collaborative relationships. All of these changes take time to implement. Staff need to be able to understand why the change is important in order to see a real culture shift. This is especially the case when different systems are brought together in a collaborative relationship. Issues that seem simple, like commonly used acronyms unknown by the other partner, may have caused barriers to patient care. These current barriers, in addition to those created by implementing a new model, need to
be resolved. It is helpful to bring issues such as these to a collaborative forum with others struggling with similar issues. For all of these and other reasons, Vermont started a Learning Collaborative for the Hubs and one for the Spokes. In hindsight, Vermont would have combined the two collaboratives into one. California will utilize one Learning Collaborative in the CA H&SS. More details pertaining to the CA H&SS Learning Collaborative will be described further within the proposal.

California has also utilized academic detailing to assist in efforts to identify and train buprenorphine prescribers. Academic detailing can identify federal waivered prescribers that can become champions in their community to encourage other physicians, nurse practitioners (NPs) and physician assistants (PAs) to become waivered. The California Department of Public Health (CDPH) has a contract with San Francisco County for academic detailing services. A curriculum has been created through this project that can be utilized for academic detailing across California. This current effort will supplement activities in the MAT Expansion Project.

California will also promote the use of the National Clinician Consultation Center’s (NCCC), Substance Use Warmline (SUW) which provides substance use evaluation and management advice to health care providers on behalf of the Health Resources and Services Administration (HRSA) Bureau of Primary Health Care (BPHC). The SUW was developed as a collaboration between the NCCC and BPHC in 2015 to help respond to the growing public health crisis of substance use (particularly opioid use). The Warmline’s goal is to provide “real time” education and clinical decision support via case-based telephone consultation to primary care providers. NCCC has established itself nationally as a clinical consultation and educational resource that helps clinicians of all experience levels across the U.S. deliver patient-centered, evidence-informed care for complex patient populations. Consultation is free and confidential, and the SUW can also link callers to expanded/”wrap around” consultation for human immunodeficiency virus (HIV) and viral hepatitis prevention and management as indicated.

The NCCC SUW consultant team includes advanced practice nurses, addiction Medicine-certified physicians, and expert clinical pharmacists experienced in substance use and psychiatry. Consultation information is kept securely via a standardized data collection tool on which each consultant records the nature of each consultation (no patient identifiers are used). The SUW has received consultation requests from clinicians of varied backgrounds and experience levels, including advanced practice nurses, PAs, pharmacists, and primary care as well as specialty physicians. Calls have come from providers in rural and urban locations across the nation. Topics of discussion vary greatly, and include how to effectively screen for (and diagnose) substance use disorders, management of co-morbid chronic pain and psychiatric/behavioral health issues, first-time buprenorphine inductions, and safer opioid prescribing/tapering. The SUW has also helped callers identify best strategies of care with suspected misuse, abuse, or diversion of controlled substances as well as MAT and management options for alcohol, sedative, stimulant, and polysubstance use. Finally, consultants have discussed various approaches for patients with particularly challenging/complex medical profiles (including pregnancy, older adults, and those with advanced liver disease). Clinicians, who have used the
service, rate it very high on usefulness and quality, and have also noted its value and role in helping to achieve positive patient outcomes. This service is available 10am-6pm Eastern Time, Mondays through Fridays (except holidays) via a designated toll-free number: (855) 300-3595. Voicemail is available for after-hour messages.

Legislative, Regulatory and Policy Barriers
California has been making strides in removing the state regulatory and policy barriers that unnecessarily reduce MAT access. In 2015, DHCS removed the treatment authorization request required for buprenorphine, allowing streamlined access for Medi-Cal patients. DHCS is also midway through a regulations package for NTPs that will remove capacity barriers, assist with the expansion of buprenorphine within the NTP setting, and establish additional guidance around the use of MUs and other changes to reduce regulatory and policy barriers to NTP services. These regulations are due to be released for public comment by Summer 2017.

Efforts at the federal level to remove legislative and regulatory barriers will also have an impact on California’s efforts. Raising the prescribing limit for Data 2000 waivered physicians can improve access of buprenorphine statewide. In order to take advantage of these federal changes, California must create a better infrastructure for the utilization of buprenorphine, since on average, California waivered physicians only manage five patients at a time. As shown in the evaluation of Vermont’s H&S model, the additional support for primary care prescribers led to an increase in the number of patients managed per physician. As California implements the CA H&SS, additional Data 2000 waivered physicians will become a part of the Spoke system and receive consulting and management support from addiction specialists at Hubs, which is expected to increase the number of patients served per physician. The federal allowance of NPs and PAs to prescribe will also expand the available workforce. This will be especially beneficial in rural areas and for the tribal community where physician shortages can be an issue, and in primary care settings which already have high volumes of NPs and PAs. All of these federal efforts will greatly improve access, MAT use and positive outcomes for individuals with an OUD.

Section B: Proposed Implementation Approach
Section B.1.: Project Purpose with Goals and Objectives
The purpose of the project is to substantially improve access to MAT services across California by utilizing a modified version of Vermont’s H&S model. Hubs build on Opioid Treatment Programs (known as NTPs in California) to provide methadone and buprenorphine for complex patients. Spokes provide buprenorphine to less complex patients, and include Data 2000 waivered physicians along with supporting addictions and health professionals to assist patients with counseling and other services.

The goals of the MAT Expansion Project are as follows:

1. Implement the CA H&SS in various areas throughout California.
a. Improve access to MAT services in at least 30% of counties with the top ten highest overdose rates.
b. Expand access to integrated MAT services in urban areas.
c. Increase the access to NTP and/or MUs in underserved areas by three clinics.

2. Increase the availability and utilization of buprenorphine statewide.
   a. In coordination with other statewide efforts, increase the total number of physicians and NPs waivered to prescribe buprenorphine.
   b. Increase the statewide average of the number of opioid users served by each waivered physician/NP.
   c. Increase the availability of counseling services for buprenorphine patients and a variety of support services for MDs in primary care settings.

3. Improve MAT access for tribal communities.
   a. Increase the total number of tribal waivered prescribers certified.
   b. Provide expanded MAT services that include tribal values, culture and treatments.

Additionally, DHCS will gather and report on the SAMHSA performance measures required by this grant program which include:

- Number of people who receive OUD treatment
- Number of people who receive OUD recovery services
- Number of providers implementing MAT
- Number of OUD prevention and treatment providers trained, to include NPs, PAs, as well as physicians, nurses, counselors, social workers, and case managers
- Numbers and rates of opioid use
- Numbers and rates of opioid overdose-related ED visits and deaths

Section B.2.: Other State and Federal Resources

California’s MAT Expansion Project will work with several other projects with private, state and federal funding, including California’s 1115 DMC-ODS demonstration waiver (Drug Medi-Cal Organized Delivery System, ensuring access to addiction treatment for Medi-Cal patients), Strategic Prevention Framework Partnership for Success, Prescription Opioid Misuse and Overuse Prevention multi-agency workgroup, CDC-funded Prescription Drug Overdose Prevention Initiative and multiple related initiatives funded by the California Health Care Foundation (CHCF), including MAT learning collaboratives for community health centers, and support of local opioid safety coalitions working on MAT access. All of these efforts will be closely coordinated with the efforts of the MAT Expansion Project, ensuring its success.

California's Drug Medi-Cal Organized Delivery System

In August 2015, California became the first state to receive federal permission to improve and expand SUD treatment and recovery services through our Medicaid Section 1115 waiver authority. With the expansion implemented under the Affordable Care Act, Medi-Cal now has over 13.5 million enrollees. An estimated twelve percent of adult Medicaid beneficiaries have a
SUD. The DMC-ODS waiver provides a continuum of care modeled after the American Society of Addiction Medicine (ASAM) Criteria for SUD treatment services, enables more local control and accountability, provides greater administrative oversight, creates utilization controls to improve care and efficient use of resources, implements evidenced based practices in substance abuse treatment, and coordinates with other systems of care. This approach provides the beneficiary with access to the care and system interaction needed in order to achieve sustainable recovery. The DMC-ODS will demonstrate how organized SUD care increases the success of DMC beneficiaries while decreasing other system health care costs.

While the Medicaid program relies on federal dollars and state leadership, the implementation of California’s DMC-ODS waiver is locally driven. County behavioral health agencies must “opt-in” to participate in the pilot. As of January 2017, 19 counties have submitted plans and are in varying stages of the approval process. This accounts for 67% of California’s population. The pilots will run through 2020 and will be evaluated for their impact on individual’s improved access to care and health outcomes.

The DMC-ODS also expands the availability of MAT in the NTP setting and provides participating counties with the option to further expand MAT in other SUD treatment settings. Participating counties must establish NTP services, if services don’t currently exist. Through the DMC-ODS, California has made improved access to MAT services a priority. The DMC-ODS expands the medications available at the NTP setting from methadone and oral naltrexone and requires the addition of buprenorphine, disulfiram, and naloxone. Vivtrol may also be added at the county’s discretion. The DMC-ODS complements the MAT Expansion Project by requiring additional medications in NTP settings, improving access to NTPs, and encouraging innovation with MAT through special optional expansion projects. The state is offering extensive technical assistance to counties interested in starting a practice in their geographical area. This includes site visits, discussions with interested NTP’s and assisting with state and federal NTP licensing requirements. State and federal funding is being utilized to fund the efforts under the DMC-ODS.

*Strategic Prevention Framework Partnerships for Success (PFS) Grant Award*

California’s PFS project addresses prescription drug misuse and abuse among youth aged 12 to 25. Through this project, DHCS will take a comprehensive approach to prevent inappropriate access to pharmaceutical drugs, change perceptions of harm associated with prescription drugs, and increase state/county capacity to implement effective prevention services. This PFS project is built upon the established SPF’s data-informed, five-step prevention planning process and guided by SPF’s two principles of sustainability and cultural competence.

DHCS selected six high-need counties to participate in the PFS project: Humboldt, Lake, Mendocino, Plumas, Shasta, and Tuolumne. DHCS, in partnership with CDPH and State Epidemiological Outcome Workgroup (SEOW), identified counties most impacted by the prescription drug/opioid epidemic based on self-reported consumption, prescribing and dispensing data, opioid pharmaceutical and heroin deaths, and non-fatal opioid-related emergency department visits/hospitalizations.
To achieve this overarching goal, three PFS project objectives have been identified. These objectives are expected to be met by June 2021, and the successful performance of these objectives will be evaluated through a mix of process and outcome activities and measures. The objectives are:

1. To increase public understanding of the risk of harm associated with prescription drug misuse and abuse in the six counties

2. To increase the capacity of county’s SUD agencies to provide effective prevention activities as measured by the PFS County Capacity Assessment Survey

3. To increase state capacity to identify SUD prevention priorities and facilitate implementation of effective strategies in targeted communities, as measured by statewide collaborative activities

The PFS project will contribute effective primary prevention approaches to a state-level collaborative addressing the misuse and abuse of prescription drugs in highly impacted communities in California. DHCS is partnering with CDPH and other governmental and private organizations to align primary prevention activities that focus on youth and community with existing efforts to educate prescribers, increase the use of California’s prescription drug monitoring program, and develop community coalitions. DHCS will increase strategic planning capacity of California’s Interagency Prevention Advisory Council (IPAC) through collaboration with the SEOW, the Evidence-Based Practice (EBP) Workgroup, and the Statewide California Prescription Opioid Misuse and Overdose Prevention Workgroup.

*Statewide Prescription Opioid Misuse and Overdose Prevention Workgroup*

In response to the national opioid epidemic, CDPH and its state partners convened a Prescription Opioid Misuse and Overdose Prevention Workgroup in the spring 2014, including leaders of numerous agencies impacted by the epidemic, across all branches of government. This workgroup explores opportunities to improve collaboration and expand joint efforts among state agencies working to address the epidemic. The Workgroup’s overarching goals include five main components:

1) Safe Prescribing
2) Access to Treatment
3) Naloxone Distribution
4) Public Education Campaign
5) Data Informed/Driven.

Workgroup membership is representative of many agencies and disciplines, bringing diverse perspectives and valued content expertise. Table 7 outlines the workgroup member agencies.
Table 7: Statewide Prescription Overdose Prevention Statewide Workgroup Member Agencies

<table>
<thead>
<tr>
<th>Workgroup Member Lists (State Agencies)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. California Coalition of Local Health Officers (CCLHO)</td>
</tr>
<tr>
<td>2. California Department of Corrections and Rehabilitation (CDCR)</td>
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<tr>
<td>3. California Department of Education (CDE)</td>
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<tr>
<td>4. California Department of Public Health (CDPH)</td>
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<tr>
<td>5. California Health Care Foundation (CHCF) <em>Only Non-State Agency</em></td>
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<tr>
<td>6. County Health Executives Association of California (CHEAC)</td>
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<tr>
<td>7. California Health and Human Services Agency (CHHS)</td>
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<tr>
<td>8. Covered California (CC)</td>
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<tr>
<td>9. Department of Consumer Affairs (DCA)</td>
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<tr>
<td>10. Drug Enforcement Administration (DEA)</td>
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<tr>
<td>11. Department of Health Care Services (DHCS)</td>
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<tr>
<td>12. Department of Managed Health Care (DMHC)</td>
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<tr>
<td>13. Department of Motor Vehicles (DMV)</td>
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<tr>
<td>14. Department of Justice (DOJ)</td>
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<tr>
<td>15. Division of Workers’ Compensation (DWC)</td>
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<tr>
<td>16. Emergency Medical Services Authority (EMSA)</td>
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<tr>
<td>17. Los Angeles County Public Health (LACPH)</td>
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<tr>
<td>18. Office of Statewide Health Planning and Development (OSHPD)</td>
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<tr>
<td>19. UC Davis Medical Center Research Team (UCDMC)</td>
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<tr>
<td>20. US Health and Human Services Agency (US HHS)</td>
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Prescription Drug Overdose Prevention Initiative

In 2015, CDPH was awarded a $3.7M four-year grant from the Centers for Disease Control and Prevention (CDC) - Prescription Drug Overdose Prevention (PDOP) for States initiative to implement a comprehensive program addressing opioid overdose and addiction in California’s counties most impacted by the opioid epidemic. In 2016, a supplemental grant was awarded to the project. The PDOP initiative is the glue through which the state’s multi-pronged effort is united, aligned, and coordinated. The PDOP initiative website can be found at: [http://www.cdph.ca.gov/programs/SACB/Pages/PrescriptionDrugOverdoseProgram.aspx](http://www.cdph.ca.gov/programs/SACB/Pages/PrescriptionDrugOverdoseProgram.aspx)

Additionally, the PDOP initiative facilitates and supports the Statewide Prescription Opioid Misuse and Overdose Prevention Workgroup as well as four Taskforces, convened to address specific aspects of the problem. These Taskforces represent different disciplines and focus on: Communications and Outreach, Data Gathering and Sharing, Integrated Health Care and Policy, and Treatment.

The PDOP initiative focuses on six primary interventions:

1) Promotion and increased use of CURES, which tracks and monitors all opioid prescriptions within California.

2) Engagement of health insurance plans and health care systems to implement safe prescribing policies.

3) Increased utilization of MAT and to promote increased use of naloxone.
4) Conduct physician and pharmacist educational outreach through the development of an academic detailing curriculum to inform practitioners about best prescribing and dispensing practices.

5) Provide local health department and community coalition support and capacity building through dissemination of local prescribing and health consequences data, outreach and education, and other community-based interventions.

6) Conduct a media education campaign which will deliver compelling messages that aim to “bend the demand curve,” shifting consumer/patient attitudes and behavior regarding opioid use and pain management.

The PDOP initiative also developed and maintains a data dashboard which provides statewide and local data on opioid mortality, morbidity and prescribing rates. The California Opioid Overdose Surveillance Dashboard, located at: https://pdop.shinyapps.io/ODdash_v1/ includes maps, dashboard informational boxes, and introductions and tutorials on use of the dashboard. These dashboards enable surveillance of several short and long-term goals currently targeted by California's PDOP initiative.

*California Health Care Foundation Funded Projects (in partnership with the State)*

CHCF, in partnership with the California Society of Addiction Medicine and DHCS, is supporting 25 California community health centers to integrate MAT into primary care, using a learning collaborative and coaching model.

In addition, CHCF funded eight teams of health plans, counties and/or community health centers to integrate MAT as part of an integrated model of complex care for patients with high utilization of emergency departments and addiction diagnoses. Funded partners include (1) El Dorado County Community Health Center and California Health Net, (2) Family Health Centers of San Diego and Community Health Group, (3) Health Plan of San Joaquin, Community Medical Centers, and San Joaquin General Hospital / San Joaquin County Clinics, (4) Los Angeles County Health Agency departments of health services, public health, and mental health (3 hospital sites), (5) Partnership Health Plan of California, Hill Country Health and Wellness Center, and Mendocino Community Health Clinic and (6) San Ysidro Health Center and Community Health Group.

Each of these projects would work collaboratively with local Hub and Spoke efforts funded by this grant.

**Section B.3.: Project Timeline**

DHCS is pursuing state contract exemption authority for all grants pertaining to the CURES legislation. This will enable California to move quicker through the contracting awarding process for this grant. California is projecting that the project start date will be May 1, 2017. This timeline can be adjusted if the grant is awarded sooner or later in 2017. The entity responsible for each task is identified in parenthesis at the end of the task.
Year One
Month 1: Receive approval from SAMHSA (DHCS)
        Amend UCLA Contract (DHCS)
        Release request for proposal (RFP) for CA H&SS (DHCS)
        Begin Needs Assessment (UCLA: Integrated Substance Abuse Program (ISAP))
        Create Baseline Evaluation (UCLA: ISAP)
        Meet with Tribal Partners to Discuss Tribal MAT Project (DHCS)

Month 2: Review RFPs for CA H&SS (DHCS)
        Release RFP for CA H&SS and Tribal MAT Project Consultants (DHCS)
        Design CA H&SS Reporting Requirements (DHCS and UCLA: ISAP)
        Begin Training Activities (UCLA: Pacific Southwest Addiction Technology Transfer Center (PSATTC))
        Meet with Tribal Partners to Discuss Tribal MAT Project (DHCS)
        Design Tribal MAT Project (DHCS and Tribal Partners)

Month 3: Award RFPs and Implement CA H&SS (CA H&SS Entities and DHCS)
        Convene DHCS CA H&SS Steering Committee (UCLA: PSATTC)
        Create a CA Strategic Plan (UCLA)
        Kick off Learning Collaborative (UCLA: PSATTC)
        Deliver One Day Statewide CA H&SS Orientation Training (UCLA: PSATTC)
        Release Tribal MAT Project RFP or Application (DHCS)
        Award CA H&SS and Tribal MAT Project Consultants (DHCS)
        Complete Needs Assessment (UCLA)

Month 4: Provide Buprenorphine and Methadone Services (in established NTPs) (CA H&SS)
        Conduct Learning Collaborative in each CA H&SS region (UCLA: PSATTC)
        Conduct Clinical Training in each CA H&SS region (UCLA: PSATTC)
        Review and Award Tribal MAT Project RFP or Application (DHCS)

Month 5: Convene DHCS CA H&SS Steering Committee (DHCS)
        Provide Tribal MAT Project Training (UCLA: PSATTC)
Month 6: Collect Quarterly Reports and Invoices from CA H&SS (DHCS)
Collect Tribal MAT Project Reports (DHCS)
Submit Bi-Annual SAMHSA Report (DHCS)

Month 7: Complete State Strategic Plan (UCLA: ISAP)
Convene DHCS CA H&SS Steering Committee (DHCS)

Month 8: Conduct Learning Collaborative in each CA H&SS Region (UCLA: PSATTC)

Month 9: Collect Quarterly Reports and Invoices from CA H&SS (DHCS)
Collect Tribal MAT Project Reports (DHCS)
Deliver One-Day CA H&SS Best Practices Training (UCLA: PSATTC)

Month 10: Conduct Clinical Training in Each CA H&SS Region (UCLA: PSATTC)
Conduct Site Visits for CA H&SS (DHCS)

Month 11: Conduct Site Visits for CA H&SS (DHCS)

Month 12: Review Year One Evaluation (UCLA: ISAP and DHCS)
Collect Quarterly Reports and Invoices from CA H&SS (DHCS)
Collect Tribal MAT Project Reports (DHCS)
Submit Annual SAMHSA Report (DHCS)

Year Two

Month 13: Convene Learning Collaborative in each CA H&SS Region (UCLA: PSATTC)
Conduct Site Visits for five CA H&SS (DHCS)
Conduct Tribal MAT Project Site Visits (DHCS)

Month 14: Conduct Clinical Training in Each CA H&SS Region (UCLA: PSATTC)
Provide Revised CSAM Guidelines to NTPs (CSAM)
Conduct CSAM Guideline Training(s)/Webinars (CSAM)

Month 15: Collect Quarterly Reports and Invoices from CA H&SS (DHCS)
Collect Tribal MAT Project Reports (DHCS)
Deliver a Statewide Day Long Best Practices Training (UCLA: PSATTC)

Month 16: Conduct Follow-Up Site Visits for CA H&SS, as needed (DHCS)
Month 17: Conduct Follow-Up Site Visits for CA H&SS, as needed (DHCS)  
Award CSAM Mentoring Conference Scholarships (CSAM)

Month 18: Collect Tribal MAT Project Reports (DHCS)  
Collect Quarterly Reports and Invoices from CA H&SS (DHCS)  
Submit Bi-Annual SAMHSA Report (DHCS)

Month 19: Convene Learning Collaborative in Each CA H&SS Region (UCLA: PSATTC)  
Conduct Tribal MAT Project Site Visits (DHCS)

Month 20: Conduct Clinical Training in Each CA H&SS Region (UCLA: PSATTC)

Month 21: Collect Quarterly Reports and Invoices from CA H&SS (DHCS)  
Collect Tribal MAT Project Reports (DHCS)

Month 22: Conduct Follow-Up CA H&SS or Tribal MAT Site Visits (DHCS)

Month 23: Deliver a Day Long CA H&SS Best Practices Training (UCLA: PSATTC)

Month 24: Review Final Evaluation (DHCS and UCLA: ISAP)  
Collect Quarterly Reports and Invoices from CA H&SS (DHCS)  
Collect Tribal MAT Project Reports (DHCS)  
Submit Final SAMHSA Report (DHCS)

Section B.4.: Administrative and Infrastructure Costs

The administrative costs associated with the MAT Expansion Project include costs for consulting services. The program staff at the state level will include the Project Director (Marlies Perez), Project Manager (Michael Freeman) and Project Analyst (Kevin Masuda). As the CA H&SS is implemented, if additional staff resources are needed, staff will be redirected from other efforts in order to make this project a success. DHCS will focus the majority of the funding to increase access to services throughout California.

DHCS will hire a consultant to assist with the CA H&SS project. The consultant will assist with overall implementation efforts. DHCS will utilize the Request for Proposal (RFP) process to contract for the consultant. The consultant will be required to have a background in MAT services, project management, and experience with implementing MAT or similar implementation of chronic care models. The preferred skills of the consultant will include experience with California’s MAT delivery system and/or Vermont’s H&S model. The consultant will assist DHCS and UCLA with implementation and ongoing efforts. Duties will include providing technical assistance to each CA H&SS, identifying and resolving implementation barriers, coordination with CSAM, and other technical assistance and
educational efforts and providing DHCS with the technical expertise to make the grant a success. The consultant costs would include funding for $200,000 annually (total two-year cost of $400,000).

DHCS will also hire a contractor to assist with the Tribal MAT portion of the grant. The contractor will assist with providing consulting services to DHCS and participating tribes in the CA Tribal MAT Project. DHCS will utilize the RFP process for the consultant. Requirements will include experience working with California tribes and SUD delivery systems. More information pertaining to the CA Tribal MAT Project is contained in Section B(6) of the grant. The contract will be for $200,000 annually (total two-year cost of $400,000).

**Section B.5.: Prevention Activities**

The prevention activities implemented with the MAT Expansion Project will coordinate with other current efforts to provide a comprehensive approach to address the opioid crisis in California. As mentioned throughout the project narrative, there are already multiple prevention efforts underway in California. In order to avoid duplication, DHCS will work closely with the current prevention projects to enhance these efforts, when possible. The identified prevention projects will utilize evidence-based methods proven to reduce the number of persons with OUDs and OUD-associated deaths. These efforts include the needs assessment, state strategic plan, relapse prevention activities, MAT education and training for CA H&SS’s and the Tribal MAT Project, the utilization of prevention specialists, distribution of naloxone and required coordination with local opioid coalitions.

**Needs Assessment**

California has already developed aspects of the required elements for the needs assessment. For example, the CHCF and CDPH workgroup environmental scans will be utilized for this project. The CDPH’s Opioid Overdose Surveillance Dashboard provides a data tool with enhanced data visualization and integration of statewide and geographically-specific non-fatal and fatal opioid-involved overdose and opioid prescription data. The website is located at [https://pdop.shinyapps.io/ODdash_v1/](https://pdop.shinyapps.io/ODdash_v1/). There is a State Dashboard and County Dashboard available online that displays data with an emphasis on where the opioid overdose epidemic is most acute (i.e. by county and zip code), and how it has changed over time in these areas. The data used in this application was gathered from several sources:

- Multiple Cause of Death File provided by CDPH Vital Statistics
- ED Visit & Inpatient Discharge Data provided by Office of Statewide Health Planning and Development
- Controlled substance Utilization Review and Evaluation System (CURES prescription drug data compiled by Brandeis University Prescription Drug Monitoring Program Center for Excellence

The MAT Expansion Project will work to supplement the information available from the Opioid Overdose Surveillance Dashboard with the additional requirements of the Needs Assessment. With assistance from UCLA, DHCS will take the number and location of NTPs in the state and
combine that with all of the existing opioid prevention, treatment, and recovery activities and their funding sources. This will help identify the remaining areas where additional improvement is needed to combat the opioid crisis. Since California already has this information available in various forms, DHCS projects the Needs Assessment can be completed by Month Three of the grant period.

**State Strategic Plan**

After compiling the improvements needed in prevention, treatment and recovery services identified in the Needs Assessment, DHCS will create a State Strategic Plan. The State Strategic Plan will align closely with other efforts including the CDC-funded Prescription Drug Overdose Prevention Initiative, the Prescription Opioid Misuse and Overuse Prevention multi-agency workgroup, CHCF opioid projects, and the Interagency Prevention Advisory Council logic model that have addressed aspects of the opioid epidemic. UCLA will assist DHCS with creating the state strategic plan starting in Month Three of the grant period and projects that it will be completed in Month Seven of the grant period.

**Prevention Specialists**

The California Consortium of Addiction Programs and Professionals offers a California Certified Prevention Specialist (CCPS), certification. To become a CCPS an individual must demonstrate 120 hours of practical application and 120 hours of education in six core areas as well as the required education. Prevention Specialists may be funded to work in CA H&SS’s in addition to the Tribal MAT Project to assist with prevention related activities.

**Local Opioid Coalition**

Together, CHCF and CDPH support several local opioid safety coalitions. These coalitions are responsible for much of the innovative efforts taking place at the local level related to changing unsafe prescribing practices and increasing local access to medication-assisted treatment. Opioid safety coalitions bring together a broad group of stakeholders committed to decreasing opioid overuse and overdose deaths. Medical societies, public health, hospitals, addiction treatment, law enforcement, advocates, health plans, and others come together to find creative ways to solve the opioid epidemic in their communities. CHCF currently provides technical assistance to 16 coalitions in 24 counties across California and CDPH provides data support.

All CA H&SS’s will be required to collaborate with the local opioid coalitions in their area. As the CA H&SS’s improve access to MAT treatment in their local area, it is essential that the opioid coalitions are aware of the availability of additional services. In addition, local coalition leaders can be leveraged to identify community physicians willing to serve as Spokes, and to work with healthcare systems, providers, consumers and the general public to put new Hubs in place where demand is greatest. DHCS also feels that strengthening local collaborations will enhance sustainability of the MAT Expansion Project and also address OUD stigma.
Naloxone

CA H&SS and the Tribal MAT Project may utilize grant funding for the purchase, training and distribution of naloxone. If funding is not available, the CA H&SS and the Tribal MAT Project may purchase naloxone with the MAT Expansion Project funding.

Section B.6.: Treatment and Recovery Support Services

1. California Hub and Spoke System

The majority of grant dollars will be expended on the CA H&SS to improve access to MAT services throughout California. The CA H&SS will include rural and urban providers. There has already been a tremendous interest in developing the H&S model within California. The Vermont opioid treatment provider (OTP) for Hub services is Bay Area Addiction Research and Treatment (BAART), which also operates within California. BAART has advocated extensively to develop a similar model within California. Other NTP providers have also expressed interest in participating in this type of system to improve access to MAT services. DHCS presented the MAT Expansion grant proposal at DHCS’ NTP Advisory Group on February 6, 2017, and the group was very interested and excited about the opportunity to participate. California is also fortunate to have one of the leading addiction advocates, Dr. Richard Rawson, from UCLA residing in Vermont over the past several years assisting with Vermont’s H&S model. Dr. Rawson assists both California and Vermont with various evaluation and other SUD related projects. In addition, another resource to the UCLA team is Michael McCann from Los Angeles, who is currently playing a key role in the Vermont H&S evaluation. He will contribute to the UCLA learning collaborative team and information to the evaluation.

Many FQHCs in California have shown an increased interest in providing MAT services and will be likely candidates for Spokes; especially in rural areas. Thirty-six California FQHCs received funding from the Health Resources and Services Administration (HRSA) to provide addiction services; 25 of them are enrolled in a learning collaborative with CHCF, in collaboration with UCLA and CSAM. Many of these clinics are in rural areas and are well-positioned to serve as Spokes. The lessons from Vermont have already been instrumental in starting California in this endeavor, and California can continue to learn from Vermont’s successes and challenges. There has never been a time in California with greater need and greater public awareness about the need for greater utilization of MAT services. The time to develop the H&SS in California is now.

Due to the extensive work required over such a shortened period of implementation, the CA H&SS will need champion providers and networks willing to put in the effort required to make this a success. Since the H&S system relies extensively on the NTP provider, it will be essential to have NTPs serve as the integral aspect of the H&SS. In urban areas and rural areas with already established NTP clinics, the Hub will be the NTP provider. The Hub will coordinate all of the funding for the system and be responsible for the recruitment of the Spokes. Payment for Spoke services will come through the Hubs. NTPs that have multiple licenses may apply to provide more than one CA H&SS in different areas across the state. DHCS will also provide support to the Hubs for recruitment efforts, as needed.
For counties currently without NTP services within a reasonable travel distance, other entities may apply for the CA H&SS grant funding including FQHCs, counties or SUD treatment providers. In the application process, the lead entity will need to describe how the CA H&SS will be created, including how buprenorphine services would be made available, and the timeline and mechanism for delivering services in the county. A CA H&SS without an NTP within their geographical area at the beginning of the grant will need to ensure NTP services, whether through an NTP or MU, will be operational by Year Two of the grant.

DHCS will fund at least 15 CA H&SS’s through a RFP process. Unlike Vermont’s model, there are not currently enough systems to cover the entire state. When awarding the grant funding, preference will be given to counties with higher overdose rates and/or with limited access to services. All systems will receive up to $2.6M for each year of the grant period, totaling a maximum of $5.2M for the entire grant period. The allowable use of funds will be divided into two categories: required and allowable expenditures. Applicants will be required to provide a narrative of the design of their H&SS, provide a budget, agree to all requirements, describe participation in any of the additional allowable activities, project numbers of clients served, adhere to all data and reporting requirements, and participate in the Learning Collaborative and training events. Grantees will be required to receive approval from DHCS for any budgetary changes that are greater than five percent of the total budget. The application will be released upon SAMHSA approval of the MAT Expansion Project. Lead Entities will have four weeks to complete the application. The selection process will be competitive. Extra points will be given to applications in areas currently without NTP services within their geographic county.

Sustainability of the CA H&SS will be a critical element of the project. While funding may be used for provision of services during the grant period, applicants will be required to demonstrate a sustainable financing model ensuring ongoing services after the award period ends. All participating Hubs and Spokes will be required to be enrolled in Medi-Cal, either as Fee-for-Service Medi-Cal providers or through Drug Medi-Cal certification. Applicants will also be required to explain how sustainability of the CA H&SS will be integrated into the overall design of the project.

<table>
<thead>
<tr>
<th>CA Hub and Spoke Service</th>
<th>Required</th>
<th>Allowable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payment of Services</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Coverage of Co-Pays or Other Costs for Under- and Uninsured Patients</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Medication Costs</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Staff to Coordinate Care and Collaboration</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Requirements of Hubs</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Requirements of Spokes</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Counseling Services</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Treatment Need Questionnaire</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Collection and Tracking of Key Performance Measures</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Use of the Office-Based Opioid Treatment (OBOT) Stability Index for Buprenorphine Patients</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Recovery and Peer Support Services</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
Participation in the Statewide Hub and Spoke Learning Collaborative | X
Collaboration with Local Opioid Coalitions | X
Participation in DHCS CA H&SS Steering Committee | X
 Provision of Naloxone | X
Providing for or Referring to Local Maternal Addiction Treatment | X
 Sustainability Plan | X
 Utilize Prevention Specialists | X
 Re-entry Services for Clients Leaving Correctional Facilities | X
 Infrastructure Costs | X
 Transportation Tokens/Vouchers | X
 Neonatal Abstinence Syndrome Treatment Program | X
 Telehealth Infrastructure Costs and Service Provision | X
 Mobile Technology | X
 Data Infrastructure | X

Required CA H&SS Activities

As a part of the application process, prospective CA H&SS Lead Entities will be required to describe how the design of the proposed CA H&SS will provide all of the required services listed below.

Payment of Services

CA H&SS grantees must utilize third party and other revenue realized from provision of services to the extent possible and use SAMHSA grant funds only for services for individuals who are not covered by public or commercial health insurance programs, individuals for whom coverage had been formally determined to be unaffordable, or for services that are not sufficiently covered by an individual’s health insurance plan. Grantees are also expected to facilitate the health insurance application and enrollment process for eligible uninsured patients. In addition, grantees will also be required to consider other systems from which a potential patient may be eligible for services such as veterans or senior services, if applicable. Also, grantees will be required to implement policies and procedures that ensure other sources of funding are utilized first when available for the patient.

Coverage of Co-Pays or Other Costs for Under- and Uninsured Patients

It will be important to cover costs that currently may prohibit a patient from receiving MAT services. Sometimes even a co-pay on insurance keeps an individual with an OUD from seeking treatment. California has a nine percent uninsured rate. Both Hub and Spokes will be required to see if the individual is eligible for Medi-Cal services. If the individual is eligible, they will be required to obtain Medi-Cal to cover the cost for services. The H&SS’s cannot pay for services for individuals that qualify for Medi-Cal but do not apply. Applicants will be required to budget a portion of expenditures for covering costs for under- and uninsured patients. Applicants will project how many patients they will be able to serve with this budgeted amount of funding.
**Medication Costs**

Medication costs can be funded including all Food and Drug Administration (FDA) approved medications for the treatment of SUD, when no other funding source exists. These medications can include methadone, buprenorphine products including buprenorphine/naloxone combination formulations and buprenorphine monoprodut formulations, naltrexone products including extended-release and oral formulations or implantable buprenorphine. Methadone will be required at the Hubs and buprenorphine at the Hubs and Spokes. All other FDA approved medication for the treatment of SUDs is allowable, but not required. If new FDA approved medications become available during the grant period, grantees will also be able to utilize these newly approved medications. For NTPs, all methadone services will continue to be funded under Drug Medi-Cal. Since on-site administration of buprenorphine is not currently funded at NTPs, unless the county participates in the DMC-ODS, Hubs in nonparticipating counties may use grant funding for costs associated with buprenorphine prescriptions (professional services and on-site buprenorphine dispensing), until the patient is stable enough to pick up prescriptions at a pharmacy (where buprenorphine prescriptions are covered by Fee-for-Service Medi-Cal). Applicants will be required to budget a portion of expenditures for covering medication costs. Applicants will project how many patients they will be able to serve with this budgeted amount of funding.

**Staff to Coordinate Care and Collaboration**

Funds may be utilized to hire a staff member at the Hub to coordinate all H&S activities. This staff member will be responsible for all collaboration activities, data reporting to UCLA and DHCS, recruiting and coordinating care with Spokes, acting as the liaison to DHCS, creating protocols and other duties related to the H&S.

Spokes are comprised of one or more waivered prescribers and a newly created “MAT team” to cover specific duties that do not require a prescribing license. The Vermont staffing model of one educator/panel manager (usually a nurse) and one case manager (usually a licensed clinical social worker) per 100 patients is recommended, but Spokes can propose alternate staffing models to cover the duties of the team, with roles filled by advance practice clinicians, pharmacists, licensed vocational nurses, medical assistants, marriage and family therapists, social workers, addiction counselors, peer providers or others, ensuring compliance with California scope of practice regulations. Alternatively, if hiring these positions by the Spoke would be cost-prohibitive to sustain after the grant period ends, these roles can be fulfilled by staff at the Hub, with patient contact done virtually by phone or video conference. Hubs will be required to describe how the MAT team will be staffed and how grant funding, if any, will be utilized to fund the MAT team.

The MAT team members help the physician manage Spoke patients, and MAT team roles can be shared among community physicians. The tasks of the panel manager and case manager may be distributed to team members based on the needs of the practice, and include the following: implementing practice protocols, coordinating outgoing and incoming referrals to and from the Hub, providing education and orientation to the practice, reviewing treatment agreements and
consents, arranging for insurance authorization for services where needed, educating about induction options and how to manage symptoms (e.g. with home induction), conducting brief phone or in-person check-ins during the initial phase of treatment, arranging for urine drug screening, coordinating medication refills to the pharmacy, checking the prescription drug monitoring system initially and then every four months, and tracking patient numbers to ensure the practice stays under the legal cap. Case management tasks include coordinating and/or providing counseling services; managing acute crises; providing brief supportive counseling or check-ins; coordinating referrals for housing, food assistance, insurance, and travel needs; and helping patients identify alternative or medication bridging options if the practice is full (with a goal of avoiding waitlists).

The MAT team meets with the prescriber(s) to discuss cases, and in the case of the larger physician groups, has monthly meetings to discuss cases and develop protocols together. These meetings provide coordination and collaboration among staff.

Professional service fees, including prescribing physician, PA and NP costs, cannot be reimbursed with the grant funding except in cases that initial start-up costs are required for a limited period of time for initial implementation, or to cover uninsured patients not eligible for other coverage. Professional fees must be covered under other current funding mechanisms. A prescribing physician, PAs and NPs may serve more than one spoke, if desired.

Funds may also be utilized to hire a consultant at the Hub or Lead Entity, to conduct academic detailing (in-person brief educational visits), coaching, mentoring or other duties which may assist the Spoke prescribers become comfortable managing more complex patients or larger patient panels. Physician to physician mentorship has proven to be an effective practice for Vermont and other chronic care models.

Requirements of Hubs

Hubs must perform as a true regional resource with a broad public health mission. A Hub must have the capacity to perform timely assessments and intakes of new patients. Hubs must have the expertise to prescribe all FDA-approved medications for OUD. Hubs must be able to manage inductions, (based on the need of the patient); provide timely consultation to Spoke prescribers, and must have the capacity to accept referrals for patients too complex to be managed at the Spoke, and to transfer patients to Spokes when stable for medication maintenance. Hubs may choose to offer naltrexone, but this is not required. Hubs must be able to maintain and report data on patients in treatment. Hubs need to perform HIV and Hepatitis C virus (HCV) testing on all individuals who enter treatment. Funds can be utilized for testing only if the costs are not already covered by other sources. Hubs also must have the capacity to assess and coordinate care for mental health disorders. Additionally, Hubs need to provide basic case management services, including coordinating referrals for housing, insurance, entitlements (e.g. applications for food or income assistance and social security disability), and travel needs.
Responsibilities of Spokes

Spokes need to adhere to standards of care for managing patients on buprenorphine, including random drug screens and checking the prescription drug monitoring program database (CURES) initially and every four months, documenting these actions in patient charts. Spokes are encouraged to employ a harm reduction approach, meaning that ongoing signs of uncontrolled addiction while on buprenorphine treatment should lead to more intensive monitoring and behavioral health services, with referral to the Hub if the needs are greater than the Spoke can provide. Spokes need to collect minimal data elements such as numbers of patients in care and retention in treatment. These data elements will need to be reported to the Hub.

Counseling Services

Vermont’s H&S model requires counseling for the Hubs and Spokes. The CA H&SS will require counseling services to be provided to all Hubs and Spoke patients. The applicants will be required to identify where counseling services will occur for services. Options can include on-site or remote (video or phone conferencing). Funding may be utilized to cover initial counseling costs not covered by Medi-Cal or other funding sources, as long as a sustainability plan ensures ongoing availability of services once the grant ends.

Treatment Need Questionnaire

Another aspect of the Vermont H&S model is determining if a patient is better suited to receive services at the Hub or the Spoke. Vermont utilizes a placement tool known as the Treatment Need Questionnaire (TNQ). CA H&SS will also be required to use the tool or a similar triage assessment tool.

Vermont identified the need for a brief assessment tool that would permit an efficient evaluation of patient severity during treatment intake to inform efforts to pair patients with the most appropriate care. The University of Vermont developed the TNQ to identify the treatment setting and not necessarily the type of agonist therapy best suited to each patient. In 2009, the lead author sketched together a set of variables that were important in determining the severity of need, loosely based on the Addiction Severity Index (ASI; McLellan et al., 2006), with higher scores indicating a higher level of treatment need. Individuals with lower TNQ scores were guided to a Spoke, while those with higher scores were retained in the Hub. After a literature review (Bukten & Skurtveit, 2014; Fareed et al, 2014; Perrault et al., 2015; Sullivan et al, 2010), further refinement of the questionnaire resulted in the development of a 21-item screener with a possible total score of 26. The elements of the ASI—legal, medical, psychological, drug and alcohol use, occupational, family, and social—were all represented in the TNQ, as were transportation, history of drug dealing, and chronic pain. The TNQ was incorporated into the intake referral form used at all Hubs.

California has received permission from the author, John Brooklyn, to utilize the TNQ in the CA H&SS without compensation.
Figure 10: Vermont’s Treatment Need Questionnaire

Patient Name/ID:
Date:
Staff Name/ID:
Ask patient each question, circle answer for each:

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you employed?</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Do you have 2 or more close friends or family members who do not use alcohol or drugs?</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Do you have a partner that uses drugs or alcohol?</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Is your housing stable?</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Do you have any legal issues? (e.g., charges pending, probation/parole, etc)?</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Have you ever been charged (not necessarily convicted) with drug dealing?</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Are you currently on probation?</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Do you have any psychiatric problems (e.g., major depression, bipolar, severe anxiety, PTSD, schizophrenia, personality subtype of antisocial, borderline or sociopathy)?</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Do you have a chronic pain issue that needs treatment?</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Do you have access to reliable transportation?</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Do you have a reliable phone number?</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>If you have ever been on medication-assisted treatment (e.g., methadone, buprenorphine) before, were you successful?</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Do you have a problem with alcohol, have you ever been told that you have a problem with alcohol, or have you ever gotten a DWI/DUI?</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Do you ever use cocaine, even occasionally?</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Do you ever use benzodiazepines, even occasionally?</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Are you motivated for treatment?</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Are you currently going to any counseling, AA, or NA?</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Do you have any significant medical problems (e.g., hepatitis, HIV, diabetes)?</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Have you ever used a drug intravenously (IV)?</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Did you receive a high school diploma (e.g., did you complete at least 12 years of education)?</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Calculate total: ______

Total possible points is 26.
Score: 0-13  Consider as candidate for lower-intensity/office-based treatment, with movement toward more intensive treatment if patient destabilizes.

Score: 14-26  Consider as candidate for higher-intensity/clinic-based treatment, followed by a potential reduction in intensity contingent upon documented treatment success.

University of Vermont
6/2012

Collection and Tracking of Key Performance Measures

CA H&SS will be required to track and collect data specific to the project. CA H&SS will also be required to track key performance measures for quality improvement activities. At a minimum, these will include the following measures along with any additional SAMHSA data
requirements that may come after the awarding of the MAT Expansion Grant. Measures include but are not limited to:

- Number of people who receive OUD treatment.
- Number of people who receive OUD recovery services.
- Number of providers implementing MAT.
- Number of OUD prevention and treatment providers trained, to include NPs, PAs, as well as physicians, nurses, counselors, social workers, case managers, etc.

Use of the Office Based Opioid Treatment (OBOT) Stability Index for Buprenorphine Patients

Determining the stability of buprenorphine patients is essential to care management of the patients. The index helps determine how often the patient needs to be seen by the waived physician, NP or PA and the frequency of urine analysis (UA) testing. CA H&SS will be required to utilize the OBOT Stability Model or a similar tool approved by DHCS.

**Figure 11: OBOT Stability Index**

1) Was the patient’s previous urine drug screen positive for illicit substances?
   - Yes
   - No

2) If YES to #1 or if the patient was recently started on buprenorphine, does the patient have fewer than four consecutive weekly drug-free urine drug screens?
   - Yes
   - No

3) Is the patient using sedative-hypnotic drugs (e.g. benzodiazepines) or admitting to alcohol use?
   - Yes
   - No

4) Does the patient report drug craving that is difficult to control?
   - Yes
   - No

5) Does the patient endorse having used illicit substances in the past month?
   - Yes
   - No

6) Does the query of the Vermont Prescription Monitoring System (VPMS) show evidence of the unexplained, unadmitted, or otherwise concerning provision of controlled substances?
   - Yes
   - No
7) Did the patient report their last prescription as being lost or stolen?
   □ Yes  □ No

8) Did the patient run out of medication early from his/her last prescription?
   □ Yes  □ No

SCORING:
If NO to all, the patient is “stable” can be seen monthly for prescriptions and urine drug screens.
If YES to any of the above, the patient is “unstable” and needs to be seen weekly for prescriptions and urine drug screens.
Additionally, if YES to 1-6, the patient should be referred for addiction services.

Recovery and Peer Support Services
The CA H&SS will be required to provide recovery services onsite or make referrals to community providers. Recovery services offered must adhere to SAMHSA’s definition of, “a process of change through which individuals improve their health and wellness, live a self-directed life, and strive to reach their full potential.” SAMHSA’s ten guiding principles of recovery should be incorporated into the design of recovery services utilized at the CA H&SS. These principles include hope, person-driven, many pathways, holistic, peer support, relational, culture, addresses trauma, strengths/responsibility and respect. Program and services that incorporate a recovery approach fully involve people with lived experience (including consumers/peers/people in recovery, youth, and family members) in program/service design. Peer support services may be offered to the CA H&SS patients, at minimum at the Hub. Funding may be utilized for peer support services.
If referrals are made to community providers, the CA H&SS will be responsible for following up to ensure that the patient is receiving services. If recovery services are provided onsite and other funding does not cover the services, grant funding can be utilized for these expenditures. CA H&SS are highly encouraged to develop robust recovery services for patients. Effective recovery services have been shown to greatly assist individuals with sustaining long-term recovery.

Participation in the Statewide Hub and Spoke Learning Collaborative
The CA H&SS Learning Collaborative is designed to increase training of addiction medicine within the Hubs, Spokes and other staff. The curricula will be designed by UCLA and overseen by Dr. Richard Rawson and Michael McCann who have assisted extensively with Vermont’s H&S model. A Learning Collaborative is a critical component to creating a network. It is a forum where the philosophy of harm reduction can be promoted and policies and practices that promote engagement and retention can be made routine. According to Vermont officials,
participation in the collaborative provides a chance to harmonize practices, make connections with other professionals, and promote cooperation rather than competition.

The sessions will be conducted at least monthly and attendance will be required for all participating Hubs and strongly encouraged for Spokes. The sessions covered will be developed from Vermont’s model and will include but not be limited to the following topics:

- Drug screening
- Handling behavioral issues
- Effective treatment of cocaine, benzodiazepines, and alcohol use disorders
- Need for dose adjustments and induction protocols
- Integrating regular medical and psychiatric care into the office visit
- Overdose prevention with naloxone
- HIV and hepatitis education

**Collaboration with Local Opioid Safety Coalitions**

The Hub, or other identified Lead Entity, will be required to coordinate and participate in the local opioid safety coalitions in their service area. The local opioid safety coalitions have a myriad of various projects in progress to reduce the effects of the opioid epidemic in their communities. The expansion of services offered by the newly created CA H&SS, will likely assist with the local coalition efforts. Training and other opportunities available both through the local coalitions and the CA H&SS will mutually benefit both projects. Funding may be utilized toward opioid safety coalition efforts. Funding will be coordinated among CHCF, CDPH and other funders to avoid duplication and ensure alignment.

**Participation in DHCS CA H&SS Steering Committee**

During the first stages of implementation of the CA H&SS, DHCS will convene a CA H&SS Steering Committee. Members of the committee will be a representative from each CA H&SS, CSAM, a patient representative with history of MAT use, UCLA and a tribal representative.

**Provision of Naloxone**

Hubs and Spokes must provide naloxone to patients. In California, pharmacists may furnish naloxone without a prescription. If the naloxone is not covered under the patient’s insurance, or available through CDPH naloxone distribution to local health departments, funds may be utilized to provide naloxone to patients. Data regarding the naloxone provided to patients, utilized by patients and overdose reversals must be collected by CA H&SS. Distribution of naloxone and training for family members may also be funded by the grant.

**Providing for or Referring to Local Maternal Addiction Treatment**

Hubs and Spokes must ensure local access to maternal addiction treatment is in place by the Year Two of the grant, at minimum to include universal prenatal screening for alcohol and drug use, counseling, case management, and MAT (to include both buprenorphine at the Hub and Spoke and methadone at the Hub). These services may be provided through in-person or telehealth
providers, and should include collaborative management with a delivery facility capable of treating infants with neonatal abstinence syndrome.

Sustainability Plan

It will be imperative that the CA H&SS is sustainable after the two-year funding period. One of the reasons California chose to implement this system was to ensure that the improved MAT utilization was not just a temporary innovation. The funding utilized for the CA H&SS is strategically utilized to cover start-up costs. The Learning Collaborative, physician and staff training, establishment of protocols, creation of new collaborative relationships and other aspects of the funding used will serve to reduce the current prescribing and access barriers. Medicaid funding has become a substantial payor for OUD services. The CA H&SS grant funding will not supplant any of these efforts established by Medicaid. Instead, the CA H&SS grant funding will supplement the multiple current efforts in California to decrease and prevent OUD deaths. CA H&SS grantees will be required to state how they will maintain sustainability of their CA H&SS after the completion of the two-year grant funding.

Optional Allowable CA H&SS Activities

CA H&SS may choose to provide any of the allowable activities in their CA H&SS; however, none of the activities are required. If Lead Entities choose to offer one or more of the activities, they will be required to describe the activity in their application. The allowable activities are:

Prevention Specialists

The California Consortium of Addiction Programs and Professionals offers a California Certified Prevention Specialist (CCPS), certification. To become a CCPS, an individual must demonstrate 120 hours of practical application and 120 hours of education in six core areas as well as the required education. Prevention Specialists may be funded to work in the CA H&SS in addition to the Tribal MAT Project to assist with prevention related activities.

Re-Entry Services for Clients Leaving Correctional Facilities

CA H&SS may coordinate with local efforts to provide treatment and coverage for patients reentering communities from criminal justice settings. CA H&SS can provide and fund up to four weeks of MAT services for patients in jail or prison custody. Patients receiving reentry MAT services while in-custody must receive MAT services at the CA H&SS upon release. If the reentry patient is not returned to the community where CA H&SS services are available, the CA H&SS providing the in-custody MAT services must link the reentry patient to community treatment services within their area. The CA H&SS will be responsible for ensuring that the reentry patient has been connected to MAT services within their community. Grant funding can be utilized for reentry services that are permissible CA H&SS services.

Infrastructure Costs

CA H&SS systems may utilize up to five percent for infrastructure costs to improve services or implement the new system. Costs may include, but not be limited to, purchasing safes to store buprenorphine and methadone, minor facility improvements necessary for expansion,
telemedicine equipment, data infrastructure, or other similar infrastructure costs. Funding cannot be used to purchase, lease or build a new facility structure.

Transportation Tokens/Vouchers

Lack of transportation can be a limiting factor for MAT patients. Grant funding may be utilized to purchase tokens or transportation vouchers.

Neonatal Abstinence Syndrome Treatment Program

CA H&SS are encouraged to build relationships with maternity staff at local hospitals to ensure women on MAT are appropriately managed during labor, and that infants are screened for NAS and treated locally (in lieu of transfer to a neonatal intensive care unit) whenever possible. Hubs and Spokes should ensure that women can continue to receive MAT, counseling, and social services after delivery, with a priority given to promoting breast-feeding and family bonding. Funding can be used for technical assistance, training and creating protocols for local hospitals and maternity providers, to maximize the opportunity for women with addiction and their infants to be treated locally.

Telehealth Infrastructure Costs and Service Provision

Telehealth services can be an effective tool especially for rural communities. Funding may be utilized to cover telehealth infrastructure costs in the CA H&SS. Funding may also be utilized to cover the service provision of telehealth services which are not already covered by a current funding source. Grantees are encouraged to review information provided by the California Telehealth Network if establishing telehealth services.

Mobile Technology

The advancement of mobile technology has been shown to improve patient outcomes. Funding may be utilized to implement a mobile technology program in the CA H&SS.

Data Infrastructure

The implementation of a new model impacts the data infrastructure of the current systems in place. Funding may be utilized to improve the data infrastructure at the CA H&SS. Data infrastructure improvements can include, but not be limited to, amending electronic health records, adding electronic forms or other data infrastructure needs.

2. Tribal MAT Project

Due to the specialized needs of the tribal community, California will fund a Tribal MAT project dedicated to improving tribal access to MAT services. As outlined in the Tribal Behavioral Health Agenda (TBHA), released by the U.S. Department of Health and Human Services in December of 2016, several behavioral health challenges affect Native communities. The TBHA addresses how SUD which may have resulted from adverse childhood experiences, historical and intergenerational trauma, and other factors, severely impacts the health of AI/AN individuals.
The TBHA blueprint includes the following four tenants:

- Provides a clear national statement about the extent and impact of behavioral health and related problems on the well-being of tribal communities.
- Recognizes and supports tribal efforts to incorporate their respective cultural wisdom and traditional practices in programs and services that contribute to improved well-being.
- Establishes five foundational elements that should be considered and integrated into existing and future program and policy efforts.
- Elevates priorities and strategies to reduce persistent behavioral health problems for Native youth, families, and communities.

DHCS will explore with California tribal partners how to incorporate some of the tenants from the TBHA when designing and implementing the Tribal MAT Project. There are also other models for improving access to MAT that may be beneficial to the Tribal MAT Project. Project ECHO (Extension for Community Health Outcomes) is a virtual tele-mentoring model located throughout the country. The Tribal MAT Project may use the strategies developed by the University of New Mexico Project ECHO to support physician development in the tribal system.

Project ECHO removes the barriers between specialty and primary care. It links expert specialist teams at an academic ‘Hub’ with primary care clinicians in local communities – the ‘Spokes’ of the model through a virtual platform designed to facilitate didactic instruction and case discussions. Together, Hubs and Spokes participate in weekly teleECHO clinics, like virtual grand rounds, combined with mentoring and patient case presentations. The clinics are supported by inexpensive, widely available teleconferencing technology. During teleECHO clinics, primary care clinicians from multiple sites present patient cases to the specialist teams and to each other, discuss new developments relating to their patients, and determine treatment. Specialists serve as mentors and colleagues, sharing their medical knowledge and expertise with primary care clinicians. Essentially, Project ECHO creates ongoing learning communities where primary care clinicians receive support and develop the skills they need to treat a condition, such as an OUD. As a result, they can provide comprehensive, best-practice care to patients with complex health conditions, right where they live. Opioid Addiction Treatment is one of Project Echo’s initiatives.

Using Project ECHO to increase the number of rural buprenorphine providers yields impressive results. As shown in Figure 12 below, Project ECHO in New Mexico led to a substantial increase in the number of certified buprenorphine providers since the start of the project in 2005. Utilizing the Project ECHO model in California for the Tribal MAT Project could help efforts to recruit and retain buprenorphine prescribers.
The Tribal MAT Project may also assist with supplementing efforts for the tribal phase of the DMC-ODS. The tribes are in Phase 5 of implementation efforts which will begin towards the end of 2017. DHCS has worked with tribal partners to identify gaps in the current SUD system which impact the tribes’ ability to participate in the DMC-ODS demonstration project. Identified gaps in MAT, recovery services and other modalities of SUD services may be minimized with assistance from the Tribal MAT Project.

Staff training and development will also be crucial to the Tribal MAT Project. The tribal health communities will have some common content needs with the rest of the state such as the basic components of buprenorphine induction, maintenance, and team roles in supporting integrated behavioral services. However, the tribal communities will also need specialized assistance due to a variety of reasons: (1) baseline high burden of addiction in communities, (2) high incidence of trauma and poverty, (3) the unique role of cultural and spiritual traditions in healing and medicine, and (4) highly varied health financing structures. For this reason, while tribal communities will be offered the common curriculum available to the state, the learning collaborative, this grant will offer the opportunity to offer tailored technical assistance and training, customized to the need of the tribal community. One example of a potential offering is consulting assistance from the South Central Foundation (SCF), whose Nuka Model of Care has led to world-class outcomes in terms of quality measures, cost containment, patient satisfaction,
and staff satisfaction, while incorporating tribal values, customs, and treatments. SCF has expressed interest in working with California tribes, and funding would allow California the opportunity to bring them into California for on-site and remote customized learning.

DHCS is in the process of convening discussions with the tribal stakeholders including tribal leaders, tribal representatives, the California Area Office of the Indian Health Services, the California Consortium for Urban Indian Health and the California Rural Indian Health Board on how to best strategically utilize the funding for the Tribal MAT Project. DHCS feels it is imperative to first meet with the tribal partners to specifically design the Tribal MAT Project together. The funding for this project will be $3,174,771 for each year and a total of $6,349,542 over the period of the grant.

3. University of California, Los Angeles (UCLA) Deliverables

UCLA and DHCS have a long-standing history collaborating on various SUD projects. DHCS will partner with UCLA for several MAT Expansion Project grant activities with two entities within UCLA; the Integrated Substance Abuse Programs (ISAP) and Pacific Southwest Addiction Technology Transfer Center (PSATTC). In order to stand-up the MAT Expansion Project swiftly, DHCS needs collaborative partners that are already familiar with California’s health system, data and services. UCLA is well-versed in working with the various data systems available at DHCS and conducting training for SUD services. The UCLA team is also knowledgeable about how SUD services are funded in California in addition to the strengths and areas of needed improvement in the SUD system. UCLA is conducting the evaluation for the DMC-ODS and as such will be analyzing some of the same datasets that will need to be analyzed to evaluate efforts conducted under this grant.

In addition, with the MAT Expansion Project, UCLA will also need to assist DHCS with creating new data sets for the CA H&SS and the Tribal MAT Project. There are many data elements which are not currently collected that will need to be created for the MAT Expansion Project. The Tribal MAT Project will require more in-depth analysis since there are currently very limited SUD data sets available for this population. While DHCS understands that the Tribal MAT Project will require more assistance from UCLA, the evaluation results will serve to provide DHCS with much needed data to continue improvements for this population.

Working with UCLA on this grant is essential and will provide the most efficient means to measure the success and improvements needed with the CA H&SS and the Tribal MAT Project. One member of the UCLA team is Dr. Richard Rawson who is currently leading an evaluation of the Vermont H&S model. This information will be of value in the evaluation of the California effort. UCLA will also work with other Vermont experts, such as Dr. Mark McGovern, the creator of Vermont’s Learning Collaboratives. Evaluating the MAT Expansion Project and implementing lessons learned will be essential in order to attain sustainability of these efforts. DHCS will enter into two Interagency Agreements with UCLA for the following deliverables for the MAT Expansion Project:
ISAP Deliverables

- Create the data reporting structure and collect CA H&SS data elements
- Assist DHCS with required SAMHSA reporting (bi-annual and annual reports) for the MAT Expansion Project
- Collaborate with CDPH and DHCS to design the Needs Assessment
- Develop the required Strategic Plan
- Conduct an evaluation of the CA H&SS project
- Design the data reporting structure for the Tribal MAT Project
- Develop and administer the CA H&SS Provider survey (see Other Attachment 1)
- Conduct Spoke Prescriber Interviews (see Other Attachment 1)
- Design and Conduct Patient Questionnaire and Interview Questions
- Design and conduct the Tribal MAT Project evaluation
- Coordinate with CDPH PDOP epidemiological team and data dashboard
- Assist DHCS with the development and collection of the MAT Expansion Project performance measurement requirements

The total cost for work provided by UCLA’s ISAP team will be $1M annually with the two-year period total cost at $2M.

PSATTC Deliverables

- Oversee and implement the CA H&SS Learning Collaborative
- Conduct quarterly half-day seminars for the CA H&SS
- Design and implement CA H&SS implementation forums
- Deliver one-day statewide CA H&SS orientation training
- Provide quarterly statewide MAT trainings for the public, stakeholders, SUD providers and other entities on emerging trends pertaining to MAT and OUD
- Assist DHCS with the training and technical assistance functions for the CA H&SS Steering Committee
- Provide technical assistance for the CA H&SS
- Collaborate with Vermont on CA H&SS implementation
- Conduct two, 6-hour clinical/skill development trainings per year in each CA H&SS region
- Coordinate with CSAM on training and mentoring projects
- Deliver one-day CA H&SS best practices training
- Design culturally specific training for the Tribal MAT Project
- Disseminate information statewide pertaining to Substance Use Warmline services
- Collaborate training with other CA initiatives such as academic detailing

The total cost for work provided by UCLA’s PSATTC team will be $1M annually with the two-year period total cost at $2M.
4. **California Society of Addiction Medicine**

CSAM is a provider of Continuing Medical Education for physicians and received the highest level of accreditation (Accreditation with Commendation) offered by the Institute for Medical Quality. CSAM’s annual conference attendance ranges between 500 and 800 physicians. The conference has assisted hundreds of physicians to become certified by the American Board of Addiction Medicine and also, through partnering with faculty, served to expand addiction education into primary care residency training programs. CSAM’s online Education Center ([http://cme.csam-asam.org](http://cme.csam-asam.org)) is a respected and popular resource that has been integrated into addiction medicine fellowship programs.

CSAM currently provides educational and technical assistance to California FQHCs which received HRSA grants to expand MAT for opioid dependence. Many of these clinics did not have a single physician with experience treating SUDs, and did not have a physician licensed to prescribe buprenorhine. Partnering with CHCF, CSAM has provided scholarships for physicians to attend a three-day Essentials of Addiction Medicine Conference. Scholarships included mentoring from experienced physicians throughout the conference, followed by peer-to-peer mentoring as they applied what they learned in clinical topics. CSAM has also produced a series of monthly webinars on important clinical and administrative issues for clinics integrating buprenorphine into primary care.

*Guidelines for Physicians in NTPs*

In 2008, the CSAM Committee on Opioids released “Guideline for Physicians working in Narcotic Treatment Programs.” This document established protocols (consistent with California regulations) and was widely used in methadone programs. CSAM also conducted a series of guideline-based trainings which were peer-reviewed and very extensive. This document is now out-of-date. With the MAT Expansion Program, CSAM will not only update the current document, but will include information on other forms of MAT (buprenorphine and naltrexone), include guidelines for the use of the CURES database, advise on the use of naloxone for overdose prevention, provide forms and handouts that could be used by clinicians, and video training links. It would be available online with chapters that can be downloaded separately and as pdf downloads, as well as the possibility of an on-demand book. The total cost of the new guidelines will be $75,000.

*CSAM Training Webinars*

CSAM currently conducts webinars as a part of a technical assistance project that is offered to FQHCs. Included in this project is a Project ECHO, an additional training component organized by the Center for Care Innovations (CCI). A team from CSAM and CCI worked together to make sure the different components supplemented each other. CSAM would create a new series of webinars based on a needs assessment that CSAM would conduct. CSAM would also make available material from the webinars that have already been produced. The webinars would focus on targeting audiences such as physicians in addition to California’s SUD providers. The total cost of the webinars will be $75,000.
**CSAM Conference**

A mentored scholarship experience as described above for $2,000 per attendee, including conference registration and a hotel/travel stipend will be provided for physicians. At the conference, more than a few of the lectures speak directly to MAT and includes a lectures on opioid dependence, pain and addiction, as well as others. Beyond these subjects, however, physicians need an understanding of the broader topic of addiction and addiction treatment if they are going to be successful in their treatment of individuals with an OUD. For example, many patients present with co-occurring disorders, or poly-substance abuse. Physicians need to understand treatment modalities and behavioral interventions that supplement MAT.

These scholarships would include a three and a half hour workshop on motivational interviewing which is a crucial skill for physicians treating patients with SUDs. In addition, these scholarships will be highly mentored. At the conference, participants will sit together at tables facilitated by a clinical expert. During morning and lunch, the scholarship recipients will meet as a group to discuss clinically relevant cases and hear experts in a small group setting.

Following the conference, there will be quarterly electronic meetings and mentorship. CSAM offered these scholarships in 2016 to 15 physicians as part of a program to provide technical assistance to FQHCs implementing MAT. Post-conference evaluations indicated that this was successful. A total of 50 scholarships per project year will be provided during the grant period. Scholarship preference will be given to physicians participating in the CA H&SS and physicians participating in the Tribal MAT Project. The total cost for CSAM scholarships during the grant period is $200,000.

**Section B.7.: Identify, Recruit and Retain the Focus Population**

Recruitment for the focus population receiving services in the CA H&SS will be multifaceted. There will be wide distribution of information pertaining to the newly established CA H&SS with the California Prescription Opioid Misuse and Overuse Prevention Workgroup and its members, managed care plans, impacted counties, insurance companies, alcohol and other drug (AOD) providers, tribal communities, California Department of Corrections, the California Administrative Office of the Courts and other systems that intersect with potential CA H&SS prospective patients.

CA H&SS will also be required to describe in the proposal how they will locally recruit and retain H&SS patients. Utilizing the evidence-based practice of Motivational Interviewing will also help engage and retain patients in MAT services. Vermont has instituted the following Engagement and Retention efforts which CA H&SS will be encouraged to utilize:

1. Every Day Counts Program (patient education on medication adherence)
2. Issuance of 30, 60, 90 day certificates
3. Increased counselor contact on the front end of treatment
4. Frequent measurement of the Clinical Opioid Withdrawal scale during induction to ensure adequate dose and getting the patient to the appropriate dose as quickly and safely as possible has the biggest impact on increasing retention.
5. Patient meets the clinic director on the first day of treatment or as soon as possible.
6. Welcome bags for patients on day one.
7. Patients are called when they miss a medication and asked to come in. Staff explain the dangers of missing medication.
8. Testing a token program (like Alcoholics Anonymous sobriety tokens).
10. Family involvement, when possible.

Section B.8. Unduplicated Individuals Receiving Treatment/Recovery Support Services

CA Hub and Spoke System

In Vermont’s H&S model, the number of patients served in the Spokes have remained relatively stable as the number of patients served in the Hubs has increased.

Figure 13: Vermont Number of Patients Receiving MAT

California will support at least 15 Hub and Spoke systems statewide. It is projected that each Hub will start out with a minimum of three Spokes in Year One and increase to a total of at least 6 spokes in Year Two. In Year One, each spoke will be projected to serve 30-50 patients. In Year Two, each Spoke will be projected to serve at least 75 patients.

Table 8: Projected Number of Spokes and Patients Served

<table>
<thead>
<tr>
<th></th>
<th>Year One</th>
<th>Year Two</th>
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</thead>
<tbody>
<tr>
<td>Projected Number of Spokes at each hub</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Total Projected Number of Statewide Spokes</td>
<td>45</td>
<td>90</td>
</tr>
<tr>
<td>Number of Patients Served in Each Spoke</td>
<td>30-50</td>
<td>75</td>
</tr>
<tr>
<td>Projected Number of Total Patients Served</td>
<td>2,250</td>
<td>6,750</td>
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</table>
Since there are a limited number of NTPs located in the Northern region of California, it is projected that three CA H&SS will not have NTP services until Year Two of the grant period. Therefore, the projected clients served in Hubs in Year One will be based on 12 Hubs.

**Table 9: Projected Unduplicated Number of Individuals Served**

<table>
<thead>
<tr>
<th>CA Hub and Spoke Systems</th>
<th>Year One</th>
<th>Year Two</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projected Number of Patients Served at Hubs</td>
<td>4,800 (400 patients at 12 hubs)</td>
<td>6,000 (400 patients at 15 hubs)</td>
</tr>
<tr>
<td>Projected Number of Patients Served at Spokes</td>
<td>2,250</td>
<td>6,750</td>
</tr>
<tr>
<td>Projected Total Patients Served</td>
<td>7,050</td>
<td>12,750</td>
</tr>
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**CA Tribal MAT Project**

The Tribal MAT Project is projected to serve 30% of the 3,640 clients identified in the California Outcomes Measure System for Treatment. This would be a projection of 1,092 unduplicated clients.

**Training and Technical Assistance**

1. *Learning Collaborative*

Over the two-year period, there will be four Learning Collaborative meetings in each of the CA H&SS regions. These half-day meetings will allow MDs and staff for the Hubs and Spokes to become familiar with each other and develop collaborative relationships and procedures. The meetings will be facilitated by UCLA experts and will follow a curriculum based on the topics used in the Vermont experience. In addition to sharing information about treatment, referral and admissions procedures, data will be reviewed as a group in order to promote the concept of the Hub and Spokes viewing themselves as an integrated “system”.

2. *Projected Number of Statewide MAT Trainings*

Each year, there will be two statewide day long trainings for the personnel of the Hubs and Spokes (including administrators). In each of these trainings, experts on opioid dependence treatment and on the Hub and Spoke will provide presentations, panel discussions and talks by patients and family members who have received services in the CA H&SS. The first of these sessions will be an orientation to the Hub and Spoke rationale and procedures. This will include an emphasis on the need for the services of the CA H&SS to be connected to the medical, social service, criminal justice and community harm reduction services (eg. syringe exchange, naloxone distribution, etc). Subsequent training sessions will focus on best practices/evidence-based practices that should be employed within the clinical services of the CA H&SS. In addition, administrative, referral and other support services found to be effective in treatment efforts will be shared across the 15 CA H&SS networks. These sessions will be organized and facilitated by UCLA, with input from the CA H&SS leaders and DHCS.
3. Projected Number of Clinical Trainings

Over the two years, there will be a six-hour training in each Hub and Spoke region to be attended by the personnel of each CA H&SS. These sessions are designed to:

1. Review most significant clinical challenges faced in this region.
2. Present evidence based/best practices that are known to be useful to address these challenges.
3. Provide skill practice and role playing of clinical skills to promote use of the techniques presented.

4. Projected Number of Unduplicated Individuals Trained

The MAT Expansion Project will involve training new waivered professionals. The estimate of number of new waivered professionals at the CA H&SS are as follows:

- Spokes will have 30 new active prescribers in Year One
- An additional 15 inactive waivered prescribers will start prescribing in Year One
- Spokes will have an additional 30 new active prescribers in Year Two
- An additional 15 inactive waivered prescribers will start prescribing in Year Two
- So over the two years the project will produce 90 new active prescribers

Section C: Proposed Evidence-Based Service/Practice

Section C.1.: System Design and Implementation Models

Vermont Hub and Spoke Model

California’s H&SS will be designed from Vermont’s model. Vermont’s H&S model has been widely publicized as a promising practice to improve access to MAT. The Vermont H&S model is built off of the strengths of OTPs and the physicians who prescribe buprenorphine in office-based settings. Vermont divided the state into five geographic regions with a Hub located in each region. The Vermont H&S model built upon the existing OTP system by helping OTPs develop into specialty treatment centers. Hubs serve as the regional consultants and subject matter experts on opioid dependence and treatment. As the OTPs, Hubs are the only entities that are allowed by federal law to provide methadone treatment for an OUD. Additionally, Hubs provide care to the clinically complex buprenorphine patients, can manage buprenorphine inductions when needed, and also provide support to the Spokes when they need clinical or programmatic advice. Spokes provide ongoing care for patients with milder addiction (managing both induction and maintenance) and for stable patients on transfer from a Hub. The Spoke is comprised of at least one prescriber and an MAT team to monitor adherence to treatment, coordinate access to recovery supports, provide counseling and contingency management. For small practices, the MAT team staff can be virtual (located at another facility, such as the Hub or another practice). Patients can move between the Hub and Spoke based on clinical severity and need. If patients begin services at a Spoke and need a higher level of care
they can transition to the Hub. Inversely, if the patient starts at the Hub and needs a lower level of care they can transition to the Spoke. All Hub and Spokes provide Medicaid services.

**Section C.2.: Evidenced Based Practices (EBPs) Utilized**

DHCS will be utilizing MAT, motivational interviewing (MI) and culturally sensitive treatment practices for tribal communities as the three EBPs for the MAT Expansion Project. All three of these EBPs have been shown to increase engagement and retention into treatment services. The MAT Expansion Project also has several other prevention and treatment EBPs that will be coordinated with current prevention and treatment activities funded by other projects.

MAT expansion, through the use of a system similar to Vermont’s Hub and Spoke model is the first EBP that will be utilized in California MAT Expansion Project. Vermont’s model has been showcased by CMS and SAMHSA as an effective model to expand MAT services. There have been several research studies that have demonstrated the effectiveness of the model.

MI will be the second EBP that will be utilized in the California MAT Expansion Project. MI is a goal-oriented, client-centered counseling style for eliciting behavior change by helping clients to explore and resolve ambivalence. Compared with non-directive counseling, it is more focused and goal-directed. The examination and resolution of ambivalence is a central purpose, and the counselor is intentionally directive in pursuing this goal.

MI recognizes and accepts the fact that clients who need to make changes in their lives approach counseling at different levels of readiness to change their behavior. During counseling, some clients may have thought about making a behavior change, but may not yet have taken steps to make that change themselves. Alternatively, other clients may be actively trying to change their behavior and may have been doing so unsuccessfully for years. In order for a therapist to be successful at MI, four basic interaction skills should first be established. These skills include: the ability to ask open-ended questions, the ability to provide affirmations, the capacity for reflective listening, and the ability to periodically provide summary statements to the client. These skills are used strategically, while focusing on a variety of topics, such as looking back, reflecting on a typical day, the importance of change, looking forward, and examining one's confidence about behavior changes.

The third EBP that will be used in the California MAT Expansion Project is culturally appropriate prevention and treatment services through the Tribal MAT project. The recently released National Tribal Behavioral Health Agenda outlines several key tribal practices that can assist tribal members with better behavioral health outcomes. DHCS wants to ensure that the Tribal MAT Project provides services that will be culturally appropriate for tribal members and is therefore designing the project with the tribal leaders.

Funding for the California MAT Expansion Project can be used for staff training and materials. Training opportunities will be shared with the CA H&SS, Tribal MAT Project participants and other impacted stakeholders. UCLA will also assist with training for the identified EBPs, as needed.
Section C.3.: How EBP Addresses Disparities

The EBP of MI will help California improve outcomes for the focus populations. Research has continually demonstrated how both EBPs foster better engagement and retention in treatment.

Implementing the CA H&SS will also address disparities in MAT access and utilization of MAT services statewide which is demonstrated by the success of the Vermont H&S model described below.

Table 9: Vermont’s Waivered Physicians and Cap Levels

<table>
<thead>
<tr>
<th></th>
<th>30 Patient Cap</th>
<th>100 Patient Cap</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-2012 Waivered Physicians</td>
<td>169</td>
<td>37</td>
</tr>
<tr>
<td>Additional Waivered Physicians since 2013</td>
<td>Increased 100</td>
<td>Increased 35</td>
</tr>
<tr>
<td>Total Waivered Physicians as of August 2016</td>
<td>269</td>
<td>73</td>
</tr>
<tr>
<td>Percentage Increase in 3-year Period</td>
<td>63%</td>
<td>51%</td>
</tr>
</tbody>
</table>

Source: Vermont Department of Health

In summary, Vermont’s H&S model has led to many successful outcomes.

- Increased the total number of physicians waivered to prescribe buprenorphine
- Increased the number of opioid users served by each waivered physician
- Led to a broader adoption of the disease model of treatment, providing a continuum of care from the Hub to the Spoke and then back again, based on the needs of the patient
- Provided more medical services in the Spokes which has been enhanced by the additional staffing
- Led to increased satisfaction by providers in primary care settings, with increased willingness to care for patients with OUD

Vermont’s H&S model has gained national attention over the past several years as one of the leading models to improve access to MAT. In a recent case study conducted by Astho and de Beaumont Foundation, the following findings of the Vermont H&S model were cited:

- Medicaid access to MAT has increased more than 150% since 2012, from 2,300 served to just fewer than 6,000 served.
- Savings to the Medicaid program are estimated at $3,100 per person/per year; with additional savings when costs in child welfare and criminal justice programs are avoided.
Section C.4.: Modifications to the EBP

California is proposing to use EBPs identified by the National Tribal Behavioral Health Agenda. The specific EBPs will be identified in coordination with California’s tribal leaders.

Section C.5.: Monitor the Delivery of EBPs

UCLA will assist DHCS with monitoring the delivery of EBPs to ensure that they are implemented according to the EBP guidelines.

Section D: Staff and Organizational Experience

Section D.1.: Capacity and Experience of Applicant Organization

DHCS has extensive experience implementing grants. DHCS is the SAMHSA single state agency for SUD and Mental Health Services. DHCS is also California’s Medicaid authority and is responsible for the licensing and administration of NTPs. California’s NTPs provide MAT to include detoxification and/or maintenance treatment services, medical evaluations and rehabilitative services to help patients become and/or remain productive members of society. DHCS is responsible for carrying out applicable statutory and regulatory requirements for licensure and compliance monitoring of all public and private NTPs in the state to ensure safety and well-being of the NTP patient, the community and the public. As the only NTP licensing agent in the state, DHCS has direct connections with all statewide NTP’s including access to local health providers in rural communities.

DHCS has substantial expertise in administration of federal discretionary grants such as the State Incentive Grant, the Safe and Drug Free Schools and Communities Governor’s program grants, Justice Assistance Grants and additional grant opportunities. DHCS monitors grant activities for compliance with federal administrative regulations and program requirements. Internal management control consists of bi-monthly staff meetings, fiscal and program reporting, regular subrecipient and technical assistance meetings, and progress review. DHCS strives to administer grant programs in a culturally responsive manner. All DHCS staff who regulate and monitor NTPs and discretionary grant subrecipients are trained to understand culture and develop appropriate services for their populations.

Section D.2.: Capacity and Experience of Partnering Organizations

Narcotic Treatment Programs

In 2016, there are currently 161 NTPs licensed that provide MAT services in California. DHCS shared the MAT Expansion Project proposal with the NTP Advisory Group on February 6, 2017. Members of the advisory group and interested parties in attendance were very excited about the opportunity to participate in the CA H&SS. The NTP Advisory Group has been discussing the Vermont H&S model for the past several years and has advocated for a similar model in California. Many members committed to submitting multiple applications to become Hubs in the CA H&SS. They also shared many ideas on how to recruit Spokes for the CA H&SS. The members were eager to participate and stated that the quick timeframe to implement was attainable. Topics regarding improving access in the northern rural counties, implementing new
MUs and ideas pertaining to CA H&SS implementation were also discussed. DHCS also informed the group of upcoming webinar opportunities for all stakeholders interested in learning more and/or participating in the MAT Expansion Project.

**UCLA Integrated Substance Abuse Programs**

UCLA ISAP conducts research, provides research training and clinical training, and arranges treatment for SUDs in coordination with the UCLA Department of Psychiatry and Biobehavioral Sciences and in affiliation with community-based treatment providers. ISAP efforts range from clinical trials of innovative behavioral therapies and pharmacotherapies to epidemiological studies.

A full array of evaluation and consultant services is provided by ISAP’s Program Evaluation Services, including needs assessment, culturally competent evaluation planning and study design, methods for improving priority scores of funding applications for projects with evaluation components, performance and outcomes monitoring, and evaluation data collection and analysis (including Government Performance and Results Act activities). ISAP assists in program evaluation at any stage, including helping programs secure grant funding and improve their programs during the proposal development stage. ISAP has evaluated numerous projects conducted locally by Los Angeles agencies, as well as around the nation, including a number of projects funded by state and federal grants. The numbers of sample participants in these projects range from 40 to 10,000. The evaluations vary in scope from outcome reports involving a small number of variables, such as retention and engagement in treatment, to complex analyses of multiple measures of performance and outcomes collected longitudinally.

Studies on the impact of methadone treatment conducted in the 1970s by ISAP co-founder M. Douglas Anglin initiated the UCLA tradition of exploring how addiction treatment services impact the community and how the methods of delivering these services influence their effectiveness. Recently, ISAP researchers have led an array of efforts on the integration of SUD services into the broader primary care system. For example, screening, brief intervention, and referral to treatment (SBIRT) is an efficient approach that seeks to improve identification and treatment of SUDs in the U.S. healthcare system.

Many ISAP professionals contribute to the UCLA education mission by providing coursework and lectures within the University. ISAP personnel also provide training in treatment protocols and research processes, delivering hundreds of workshops and presentations in the United States and abroad. ISAP’s National Institutes of Health (NIH)/National Institute on Drug Abuse (NIDA)-funded Drug Abuse Research Training Center supports annual fellowships for pre-doctoral and postdoctoral fellows. In addition, ISAP is the administrative home of Pacific Southwest Addiction Technology Transfer Center (PSATTC), one of 10 regional centers supported by the Center for Substance Abuse Treatment. The PSATTC provides training, technical assistance, and collaborative promotion of empirically proven substance use disorders treatment practices. Like the CTN, PSATTC increases knowledge about and improves the delivery of effective treatments for SUDs. Recently, PSATTC has provided training on healthcare reform; integration of primary care and behavioral health services; screening, brief
intervention, and referral to treatment (SBIRT); MAT for opioid and alcohol use disorders; and MI. For the past several years, ISAP has partnered with the Los Angeles Department of Mental Health to provide comprehensive training and technical assistance to the local mental health clinical workforce on co-occurring SUD and mental health disorder screening and treatment intervention. ISAP researchers annually produce approximately 100 publications in peer-reviewed journals and present research findings at scientific meetings throughout the world.

*California Health Care Foundation*

CHCF is partnering with DHCS to support the goals of this grant; examples include: (1) supporting local opioid safety coalitions in 24 counties, each of them committed to increasing access to MAT in their community, (2) supporting a learning collaborative for 25 community health centers across the state, focused on MAT integration (each of these clinics will be well-positioned to serve as a spoke if chosen to be one of the H&S pilots), and (3) supporting eight teams of health plans and clinics to develop integrated MAT services for complex patients.

CHCF’s overall mission is to advance meaningful, measurable improvements in the way the health care delivery system provides care to the people of California, particularly those with low incomes and those whose needs are not well served by the status quo. CHCF works to ensure that people have access to the care they need, when they need it, at a price they can afford.

CHCF informs policymakers and industry leaders, invests in ideas and innovations, and connects with change makers to create a more responsive, patient-centered health care system.

CHCF supports the testing and evaluation of innovative approaches to improving care. CHCF also commission research and analysis that policymakers, clinical leaders, payers, consumers, and the media depend on to better understand California's complex delivery system.

*California Society of Addiction Medicine*

CSAM is a professional society representing close to 400 physicians dedicated to increasing access and improving the quality of addiction treatment, educating physicians and the public, supporting research and prevention, and promoting the appropriate role of physicians in the care of patients with addictions. CSAM is a State Chapter of the American Society of Addiction Medicine (ASAM).

A key focus of ASAM and CSAM is working, together with the American Board of Addiction Medicine, toward the recognition of addiction medicine as a specialty by the American Board of Medical Specialties, including establishing fellowships in addiction medicine.

**Section D.3.: List of Staff Positions for Project**

California will not fund state staff positions from the grant funding. DHCS does not have the time to secure positions for the staff work and therefore will hire consultants to assist with implementation to the urgent need to increase access to MAT services, the funding will mainly be directed at services. The key state staff positions for the project are as follows:
Marlies Perez—Project Director

Michael Freeman—Project Manager

Kevin Masuda—Project Analyst

Section D.4.: Key Staff Demonstrated Experience

Marlies Perez—Project Director

Marlies is the California DHCS Substance Use Disorder Compliance Division (SUDCD) Chief. Marlies has worked in the field of substance use disorder services for the State of California for over fifteen years. Marlies has extensive experience implementing new programs. In 2001, California passed a law to offer SUD treatment in lieu of incarceration. Marlies was on the team that implemented this proposition and was responsible for the $120M annual program. She has also overseen a myriad of grants including statewide Drug Courts, Justice Assistance Grant, and various Americorps grants. Marlies has also implemented other state SUD funding programs including the Offender Treatment Program ($40M annually) and the Parolee Services Network ($10.7M annually). Marlies is currently the state lead on California’s DMC-ODS 1115 Demonstration waiver. Marlies is also one of DHCS’ experts in medication assisted system funding and delivery systems. She is responsible for the licensing of NTPs and the chair of the NTP Advisory Group. Marlies’ experience with contracts, funding allocations, evaluations, data collection and reporting and stakeholder engagement will be essential to this effort.

Michael Freeman—Project Manager

Michael Freeman is Chief of the Counselor and Medication Assisted Treatment Section of SUDCD. He has over nine years of experience working in the SUD field, including licensing and certification of residential and outpatient SUD treatment facilities as well as HIPAA compliance implementation. Michael is currently California’s State Opioid Treatment Authority responsible for the oversight and adherence of NTPs to state regulations and statutes including the licensing application and renewal process, complaints, exceptions to regulations and technical assistance. He also has extensive experience with contract management, budget tracking, legislative analysis and communicating effectively with interdisciplinary internal and external stakeholders regarding complex licensing and compliance issues. Michael’s extensive knowledge and experience with the licensing and oversight of NTPs will be critical to the MAT Expansion Project.

Kevin Masuda—Program Analyst

Kevin Masuda works for the SUDCD as an analyst. Kevin has worked in this position for approximately ten years. Kevin started with the Department working to assist with the Substance Abuse and Crime Prevention Act of 2000 (SACPA). Kevin’s role during this time was to help several California counties develop programs and spend allocated funding within the laws and regulations governing the act. Kevin also worked with the counties to ensure reporting compliance, as required. In addition, Kevin served on the SACPA evaluation team assisting with statewide data collection and analysis working closely with UCLA researchers. Most recently,
Kevin is assisting with the implementation of California’s DMC-ODS 1115 Demonstration waiver. Reporting directly to the Division Chief, Kevin has performed in several aspects of implementation. Key responsibilities have been preparing and monitoring contracts, reviewing implementation plans and working with counties to develop the enhanced delivery system. Kevin’s experience with evaluations, data collection and reporting, and stakeholder engagement will be essential to this grant effort.

Section D.5.: Input from Consumers, Clients and Families

Patient engagement is critical to the development of the MAT Expansion Project. DHCS is committed to outreach and active engagement of patients, partners and stakeholders to ensure the best possible implementation of the project. Outreach and engagement strategies will be geared to increase participation in, and access to MAT for selected high-risk communities. Patients will have opportunities to engage with DHCS regarding the MAT Expansion Project in many ways including but not limited to webinars, surveys, and MAT Expansion Project Advisory Group participation. Effective communication and feedback from patients regarding issues, concerns and recommendations for the MAT Expansion Project administered by DHCS will help assure that the Department is fully informed.

Section E: Data Collection and Performance Measurement

Section E.1.: Ability to Collect and Report on Required Performance Measures

California already has a number of data systems in place to track the treatment and use of opioids. Wherever possible, these existing data systems will be used enabling the state to “hit the ground running” in terms of measurement by being able to collect and report on established measures quickly. This will also enable the state to evaluate California’s performance during CA H&SS implementation and throughout grant implementation.

In cases where additional information would be helpful to more fully evaluate the CA H&SS, new data will be collected. California will ensure compliance with this data reporting by making it a requirement of providers as a condition of their participation in the grant.

Section E.2.: Data Collection Plan

DHCS will continue to submit data in compliance with the Substance Abuse Prevention and Treatment Block Grant (SABG) standard reporting requirements. Additionally, DHCS will report performance on the performance measures specific to this program according to the following plan:

- **Number of people who receive OUD treatment.** This will be measured based on data obtained from multiple data systems:
  1. California Department of Justice (DOJ) Controlled Utilization Review and Evaluation System (CURES) prescription data monitoring program. The existing CURES 2.0 system already collects the number of buprenorphine prescriptions, and the number of unique patients receiving these prescriptions.
2. California Outcomes Measurement System, Treatment (CalOMS-Tx). Additional information will be collected from treatment providers (e.g. NTPs serving as Hubs) through CalOMS-Tx. CalOMS-Tx collects admission and discharge data in compliance with SAMHSA’s requirements for the Treatment Episode Data Set. NTPs and other providers are already required to submit this data, and report on the type of medication being used, which will enable the state to quantify the number of people receiving MAT in the form of methadone.

Both data sources also contain county and zip code data that will facilitate analyses targeted at the local level where hub and spokes systems have been implemented.

• **Number of people who receive OUD recovery services.** Providers of recovery services participating in the CA H&SS will be required to collect and report this information as a condition of their funding.

• **Number of providers implementing MAT.** CURES 2.0 data will be analyzed to determine the number of providers who are actively prescribing buprenorphine products. Separately, CalOMS-Tx will be analyzed to determine the number of providers who are administering methadone.

• **Number of OUD prevention and treatment providers trained, to include NPs, PAs, as well as physicians, nurses, counselors, social workers, case managers, etc.** Training staff will record the number and type of providers trained through this grant, quantified through sign-in and sign-out sheets at each training.

• **Numbers and rates of opioid use.** One or more questions will be added to the established California Health Interview Survey (CHIS) conducted by the UCLA Center for Health Policy Research to determine the number of opioid users, including users of illicit opioids such as heroin. CHIS, the largest state health survey in the nation, uses a random-dial telephone survey to annually ask over 20,000 Californians questions on a wide range of health topics. CURES 2.0 will also be used to determine the number of people being prescribed opiate medications.

• **Numbers and rates of opioid overdose-related deaths.** This data is already collected by CDPH and reported via the existing California Opioid Overdose Surveillance Dashboard (https://pdop.shinyapps.io/ODdash_v1/). The numbers and rates of deaths are based on death certificate data from CDPH vital statistics Multiple Cause of Death file. Rates are calculated by dividing the number of deaths by population estimates from the U.S. Census Bureau or CDC Wide-ranging Online Data for Epidemiologic Research (WONDER). Numbers and rates can be reported at the state and local levels for all opioids, heroin, prescription opioids, prescription opioids without synthetics, natural and semi-synthetic opioids, methadone, and synthetic opioids.

In addition, progress toward meeting each of the Hub and Spoke Grant’s stated goals will be measured as follows:

4. **Implement the Hub and Spoke model in various areas throughout California.**
   a. **Create access to MAT services in at least 30% of counties with the top ten highest overdose rates.** Progress will be indicated by the physical location of new hub and/or spoke capacity sites or expansion of existing ones, as well as increases in
actual buprenorphine and methadone prescribing, based on CURES 2.0 data and CalOMS-Tx, respectively.

b. Expand access to integrated MAT services in urban areas. This will be measured by increased MAT prescriptions, increased recovery services, and NTP admissions, as well as program surveys designed to assess integration of care using a modified form of SAMHSA’s Integrated Practices Assessment Tool (IPAT).

c. Increase the access to NTP and/or MUs in underserved areas by three clinics. Measured by the licensing of at least three new NTP or MU locations in these areas.

5. Increase the availability of buprenorphine access statewide.
   a. Increase the total number of physicians and NPs waivered to prescribe buprenorphine – This will be measured using SAMHSA’s tracking tool (https://www.samhsa.gov/medication-assisted-treatment/physician-program-data/certified-physicians?field_bup_us_state_code_value=CA)
   b. Increase the statewide average of the number of opioid users served by each waiver physician/NP. Based on the combination of the number of opioid users (from CURES 2.0) and the number of waivered physicians (from SAMHSA).
   c. Increase the availability of counseling services for buprenorphine patients and a variety of support services for MDs in primary care settings.

6. Increase MAT education and access for tribes.
   Surveys, qualitative interviews, and/or focus groups, will be conducted with providers and patients to assess perceptions of the hub and spoke system and obtain suggestions for improvements. This qualitative data will be an important to aid in the interpretation of the quantitative data, and to provide suggestions for quality improvement.

Section E.3.: Quality Improvement Process

Although the measures described in the previous section will be reported regularly to participating providers and are useful for evaluation of the MAT Expansion Project overall impact, some of these statistics, e.g. overdose death rates, are not ideal for quality improvement because they are unlikely to immediately reflect measurable changes in response to small local quality improvements. Therefore, each participating Hub will be required to take the lead (in coordination with their Spokes) on tracking additional metrics and reporting on rapid-cycle (plan-do-study-act) quality improvement activities aimed at improving performance on these measures. Hubs will be allowed to propose and revise the measures as needed, in collaboration with DHCS, to fit their current situations and highest priority challenges. Examples of appropriate measures might include:

- Number of Hub admissions
- Percentage of Hub intakes performed on the same day a referral was received
- Percentage of patients admitted at the hub that proceed to receive confirmed care at a Spoke
- Retention of patients at the Spokes