Maryland Opioid Misuse Prevention Program

Needs Assessment Guidance Document

Developed by

DHMH's Behavioral Health Administration

and

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OPIOID MISUSE PREVENTION PROGRAM (OMPP)
Needs Assessment Guide

Introduction

Opioid misuse is a growing public health concern with devastating consequences for individuals and communities across the world. The number of fatalities due to opioids has grown from 17,000 to 42,000 between 1999 and 2012 in the United States. A large portion of these fatalities are attributed to an increase in prescription opioids misuse. In addition to increased risk of death, there are various consequences of use: for each overdose death, there are 32 emergency department visits, 130 people who abuse or are dependent and 825 people who misuse prescription opioids (1, 2).

OPIOIDS

"Opioids" is a term used to describe a variety of compounds grouped together because they work by binding to opioid receptors in the body. Naturally existing opiates such as morphine and heroin are derived from the opium poppy plant. Opioids can also be synthetic (e.g., fentanyl), and licit or illicit. Some examples are listed in Table 1 (pg. 12). Prescription opioids are highly effective in managing pain when taken as directed. However when misused, they can have life threatening consequences. Opioids are misused primarily due to their ability to create a sense of well-being and pleasure and often times, users attempt to intensify these feelings by taking these drugs differently than prescribed.

WHAT IS "OPIOID MISUSE"?

"Opioid misuse" encompasses a variety of behaviors that violate the intention of prescription drugs, but also includes the use of illicit opioids. The terms "nonmedical use of prescription drugs", opioid misuse and opioid abuse are sometimes interchangeable and may include behaviors such as:

- □ The use of a prescription drug without a prescription from a physician, e.g. receiving or stealing from a friend or relative
- □ Taking a prescription opioid simply for the experience or feeling the drug causes or for any reason other than prescribed
- □ Taking a prescription opioid in a different manner than prescribed, e.g. crushing and injecting an oral tablet or taking a higher dose than prescribed
- □ Use of licit or illicit opioids in combination with other substances e.g. alcohol, marijuana, etc

Note: For the purposes of the OMPP, heroin use will be included in the term "opioid misuse".

WHAT ARE THE CONSEQUENCES OF OPIOID MISUSE?

Opioid misuse can cause the intended effect of euphoria but can inadvertently result in drowsiness, slowed breathing, low heart rate and coma in overdose situations. In the long term, opioids can lead to dependence and addiction. Dependence is a physical adaptation whereby a person will require the drug to avoid withdrawal symptoms. This can happen not only in abusers, but also among chronic pain patients taking opioid prescriptions as directed. Opioid withdrawal begins 6 – 30 hours after the last dose and causes agitation, runny nose, sweating, aches and pains and inability to sleep. Protracted withdrawals manifest as goose bumps, diarrhea, abdominal cramping, nausea and vomiting. Addiction is different from dependence

in that it involves compulsive drug seeking behavior and use despite negative consequences. It may result in failure to meet work, social, or family obligations (3, 4, 8).

Injection drug use can also increase the risk of HIV, Hepatitis C and other blood borne infections through needle sharing.

HOW DOES OVERDOSE OCCUR?

Overdose deaths occur when the body is overwhelmed with a substance such that it is unable to perform vital functions. In opioid overdose situations, breathing is the major function that is compromised and it may manifest as shallow, slowed or absent breathing. In addition, an individual may have a slow heart rate, pinpoint pupils and be unconsciousness. An overdose may result in death if symptoms are not recognized but it resolves without interventions. While some deaths occur instantaneously other overdoses may allow time for interventions. If a bystander is present and can recognize overdose symptoms, he/she can call the paramedics and/or use interventions to prevent death. One frequently cited barrier to seeking help is fear of police investigations or criminal liability (5, 6, 17).

While we know that all those who misuse opioids are at risk of overdosing, studies have identified certain groups who are at a higher risk. Those who had previously developed tolerance to opioids but lost it after decreasing or stopping use are at a higher risk of overdosing. Specifically, those who are being released from prison or have recently detoxed are at a higher risk. Patients who have legitimate pain management needs but have a suspected or confirmed history of abuse are also at risk. Other groups include chronic pain patients and injection heroin users (vs smoking, snorting, and swallowing). Those who experience nonfatal overdoses tend to have more years of heroin use than those who do not (6, 17, 18).

RELATIONSHIP BETWEEN HEROIN AND PRESCRIPTION OPIOIDS

The relationship between heroin and prescription opioids is complex. Various studies have linked prescription drug abuse to heroin use (9, 19). In one study, two thirds of oxycodone users switched to heroin because of cost, ease of access and use (10). In a study of 28 states, prescription opioid misuse declined slightly from 6 to 5.6 people per 100,000 (2010 to 2012) while heroin use increased from 1.0 to 2.1 people per 100,000 (7). Taken together, these data may point to a need to address both NMUPO and heroin use simultaneously due to a potential increase in NMUPO when only heroin use is targeted, and vice versa.

Furthermore, prescription opioids (e.g., fentanyl which is many times more potent than heroin) are mixed with heroin, increasing the risk of overdose and deaths. Since there is no way for a user to ascertain the strength and purity of illicit drugs, they may unknowingly take lethal combinations, or doses of heroin. In 2014, Rhode Island had 22 fatalities over 13 days with over half of these cases being linked to heroin mixed with fentanyl (11).

Scope of the Problem

Heroin. As of 2013, 289,000 people 12 and older reported past month heroin use, while 681,000 in the same age group admitted to past year use (12). Since 2002, both past year and past month use of heroin have been steadily rising (figure 1). As heroin use increases, consequences such as emergency visits, hospitalizations and deaths due to overdose have also risen. In 2011, 258,500 emergency department visits involved heroin use. Over 90% of overdose related emergency department visits are among the 21 years or older age group (13). Overdose deaths due to heroin have more than doubled since 2007 to 5,900 in 2012 (2).

Prescription opioids. While prescription drug abuse has seen a large increase since the late 1990's, it has been trending down in the last few years. In persons 12 years and older, past year nonmedical use of prescription opioids (NMUPO) is slightly down to 4.57% in 2010-11 (from 4.89% in 2009-10)(14). The age group with the highest NMUPO is in the 18 – 25 range with 1 in 10 (or 10.43%) reporting past year use in 2011 (14). According to DAWN data (Drug Abuse Warning Network) prescription opioids were the cause of roughly 420,000 emergency department visits in 2011 (13). CDC's vital statistics reveal that 16,007 overdose deaths were linked to opioid pain relievers in 2012, which is a four-fold increase since 1999. Consistent with consumption data however, there has been a downtrend in prescription opioid related deaths since 2010 which was at 16,651 (2).
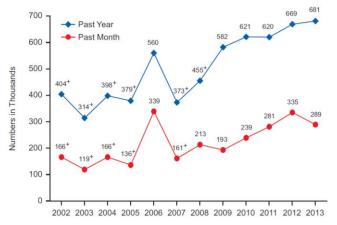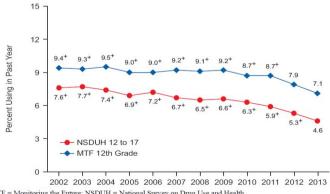

Figure 1. Past month and past year heroin use among persons aged 12 or older: 2002 - 2013 (NSDUH)

Figure 2. Past year nonmedical pain reliever use among youths in NSDUH and MTF: 2002 - 2013

Heroin. Lifetime heroin use among high school students in Maryland is 4.9%, which is twice the national level of 2.2%. This number has been increasing since 2005 from 2.6% (15). Seventy-six percent of those admitted for treatment of heroin use are adults in the 26 – 65 age range. Along with use, deaths due to heroin have been increasing. In 2013, 464 deaths were attributed to heroin – almost double from 238 in 2010 (16). The age

Figure 3. SMART: Percent distribution of age among those reporting heroin as primary substance of abuse

groups with the highest fatalities are the 25 – 34 year and 45 – 54 year olds each accounting for 28% of overdoses. The largest increase in heroin related deaths occurred among the 25 – 34 age range, African Americans and those who are 55 years and older. While 69% of the deaths occurred among whites, there was a 24% increase in deaths among African Americans between 2012 and 2013 (16).

Prescription opioids. According to the 2010-2011 NSDUH data, 3.89% of persons 12 and older in Maryland report past year use. The Youth Risk Behavior Survey (YRBS) data indicates that 15.2% and 6.8% of high school and middle school students respectively report lifetime NMUPO (US = 17.8%) (15). Consistent with national trends, young adults (18 – 25) report the highest past year use (9.13%) (14). While all age groups showed a slight downtrend in past year NMUPO, only the 12 – 17 age group showed a statistically significant decline (5.8% to 4.63%) (14). Opioids are associated with 3.2% of all hospital inpatient admissions in Maryland (15). Demographically, almost half (45%) of those admitted are in the 26 – 45 age group (15). Opioid related fatal overdoses account for 316 deaths in 2013 and are most common among whites (78%) and those between ages 25 and 44 (16).

County level distribution of opioid and heroin related deaths are listed in the "Identifying Existing Data Sources" document.
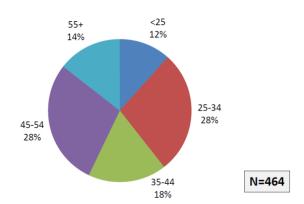

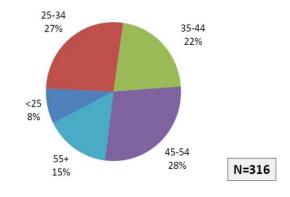Figure 4. Heroin related intoxication deaths occurring in Maryland by age (OCME)

Figure 5. Prescription opioid related intoxication deaths occurring in Maryland by age (OCME)
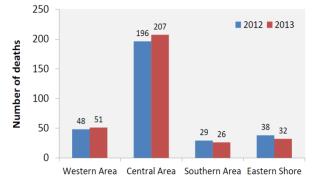

Figure 6. Prescription opioid related intoxication deaths occurring in Maryland by region (OCME)
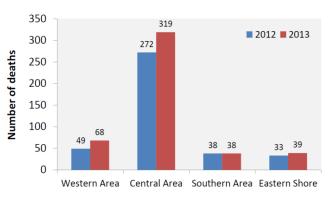

Figure 7. Heroin related intoxication deaths occurring in Maryland by region (OCME)

Source: Maryland Department of Health and Mental Hygiene 2014

Maryland Opioid Misuse Prevention Program Goal

The long-term goal of the Maryland Opioid Misuse Prevention Program is to reduce the number of overdose fatalities in each participating jurisdiction. This goal will be reached through the following objectives:

- ❖ **Reduce opioid misuse**
- ❖ **Reduce opioid overdoses**
- ❖ **Prevent fatalities due to overdoses**

The Strategic Prevention Framework

SAMHSA's Strategic Prevention Framework (SPF) is a model that guides the selection, implementation, and evaluation of evidence-based, culturally appropriate, sustainable interventions addressing substance abuse. The model has five components:

1. Assessment of needs and resources
2. Capacity building
3. Development of a strategic plan
4. Implementation of effective prevention programs, policies, and practices
5. Monitoring and evaluation of outcomes

Strategic Prevention Framework Components

Although presented here as a list of sequential steps, the SPF model is a circular process; there is substantial overlap among the five components. For example, assessing and addressing capacity needs, listed as Steps 1 and 2, must take place throughout the SPF process. Similarly, plans for evaluation (Step 5) should begin immediately and continue after intervention activities end. Issues related to sustainability and cultural competence (listed at the center of the figure) must be addressed throughout each of the five steps.

This document will provide guidance on the first step – Assessment of needs and resources.

The Purpose of a Needs Assessment

The first step in the SPF model is to systematically gather and analyze local data related to the substance abuse problem—in this case, opioid misuse. These data will help you identify the five W's (What, Who, Where, When and Why) and better understand the opioid misuse issues in your community. This step of the SPF is important for identifying appropriate strategies for addressing them.

A comprehensive assessment should:
- Identify the nature and extent of the opioid misuse problem in different groups, including those defined by age, gender, race/ethnicity, or other demographic characteristics (WHAT, WHO)
- Identify the geographic areas where the problem is greatest (WHERE)
- Times of the day, month, or year when the problem is greatest (WHEN)
- Define one or more target populations (e.g., middle school youth, young adults, active users, people at high risk of overdose) (WHO)
- Identify intervening variables (factors linked to opioid misuse in your community) (WHY)
- Establish baseline information to track the coalition's progress
- Determine your community's readiness to address opioid misuse
- Create community consensus about opioid misuse and abuse problems in the community

Methods

TASK 1: COLLECTING DATA TO ASSESS NEEDS

Local data can help you better understand the problem of opioid misuse in your community. Both quantitative (e.g., numbers, statistics) and qualitative (e.g., beliefs, attitudes, and values of stakeholders) data are useful to the assessment process.

Quantitative data. Several types of quantitative data may help you better understand the extent of opioid misuse in your community and related consequences.

Data on consumption. Consumption (use) patterns describe opioid misuse in terms of the frequency or amount used. For example:
- Number of youth ages 12–17 reporting current (within the past 30 days) misuse of prescription opioids
- Number of adults ages 18 and older reporting use of heroin in the past year
- Number of prescriptions for opioid pain relievers in a given year

These types of data may be collected by national or state surveys, such as National Survey on Drug Use and Health (NSDUH) and Youth Risk Behavior Survey (YRBS). However, local data may not be as readily available. As a result, you may need to supplement these sources by collecting data from your local target area. Whenever possible, to standardize data collection and allow for comparisons across different areas, you should use the same questions and wording as used in the national and state surveys. State data on consumption patterns, perceptions and attitudes will be collected through the Maryland Public Opinion Survey (MPOS) and made available upon completion. Survey questions from MPOS, NSDUH and YRBS are available in the "Collecting Data" document.

Data on consequences. Opioid misuse is associated with many problems, including physical and mental health conditions, increased health care use, and increased risk of overdose and death.
Data related to consequences can help you better understand the opioid misuse issue in your community. These consequences include any social, economic, or health problem that results from opioid misuse, such as:

- ED visits involving the use of heroin or prescription opioids
- Opioid-related hospital discharges
- Deaths from opioid overdose
- Opioid-related arrests

You may have to compile this information locally from different sources (e.g., the police department, hospitals). The "Identifying Existing Data Sources" document provides information on how to obtain data on fatal and nonfatal opioid poisoning using International Classification of Disease codes. This document also contains information on various sources of data.

Qualitative data. Qualitative data may help you gain a deeper understanding of the opioid misuse problem in your community by obtaining insight into the beliefs, attitudes, and values of various stakeholders. Common methods for obtaining qualitative data include key informant interviews and focus groups.

Key informant interviews. Key informants are people who are knowledgeable about opioid misuse and/or have an interest or stake in efforts to address the problem. These individuals can help you better understand opioid misuse and identify options for addressing the problem.

The interviews use scripted, open-ended questions to obtain detailed responses about a specific topic. Information on how to conduct interviews with key informants is provided in the "Collecting Data" document.

Engaging key stakeholders in all aspects of the assessment process will promote sustainability by securing their buy-in and laying the foundation for ongoing participation and support. It will also be important to share the findings from the assessment process with key stakeholders and other community members. The better they understand the baseline issues, the more they will appreciate—and want to sustain—your opioid misuse prevention and reduction efforts.

Focus groups. Focus groups are a series of planned discussions that examine the perceptions of a particular group (e.g., adults who are currently using heroin, parents, law enforcement personnel). The format encourages group members to interact with each other and reflect on each other's statements. A moderator leads the discussion, using a list of opened-ended questions and probes. Each focus group includes 8 to 10 persons (maximum of 12) who are similar in regard to the issue of interest. Three to five focus groups are typically used per demographic (e.g., youth who use heroin). Transcripts are reviewed to identify recurring themes. See the "Collecting Data" document for information on how to conduct focus groups.

Based on the quantitative data from the MPOS, you may identify specific groups that have higher rates of opioid misuse in your community. We strongly recommend targeting that population when selecting your quantitative methods. For instance, if you identify a high rate of opioid misuse among the 45 – 54 age group, conducting key informant interviews and focus groups in this age group would provide you with the most relevant data from which to determine your contributing factors.

Examples of demographic groups you may want to select for your key stakeholder interview or focus groups are:

- **People who are misusing opioids or currently receiving substance use disorder treatment**
- **Substance use disorder prevention and treatment providers**
- **Healthcare providers such as doctors and pharmacists**
- Municipal government officials (e.g., department heads, city council members)
- First responder personnel and law enforcement
- Social service agency personnel
- School personnel such as administrative staff, school counselors, etc
- Parents
- Representatives from the faith community

Note: It is a requirement of the grant that coalitions conduct focus groups in all of the **bolded** demographic groups. Due to scheduling constraints, you may find it a challenge to conduct focus groups among certain groups, e.g. medical doctors. In this case, key informant interviews can be a more practical tool.

Cultural competence. In collecting qualitative data, it is important to use methods that are culturally competent and appropriate. For example, when developing your interview or focus group guide, carefully review all questions to make sure they will not be perceived as too personal or inappropriate. Consider any translation needs, and make sure that the interviewers or group facilitators reflect the composition of the group being interviewed.

TASK 2. IDENTIFYING INTERVENING VARIABLES

Intervening variables (the Why) are groups of factors that have been identified through research to influence the incidence and degree of substance misuse and its consequences. The SPF model is grounded in the idea that changing these variables at the **community** level will cause changes in misuse and its outcomes.

Intervening Variables
Community norms
Enforcement
Perceived risk of harm of use
Retail access
Social access

As part of Task 1, you need to identify sources of data for the intervening variables and their contributing factors that appear to be the most prominent in your community. This part of the assessment will help guide the selection of your evidence-based strategies in Step 3 of SPF. Remember that contributing factors describe "why" something is a problem-not the problem itself.

Before moving on, take a look at how to identify data sources and contributing factors for each potential intervening variable. Find the table in the "Identifying Existing Data Sources" document.

TASK 3. ASSESSING CAPACITY (READINESS AND RESOURCES)

This task involves assessing your community's readiness to address the opioid misuse problem and the existing resources that may be dedicated to this purpose. This assessment will help you identify the most appropriate and feasible opioid misuse prevention and reduction strategies to implement in your community.

Assessing resources. In addition to assessing your community's readiness to address opioid misuse, you will also need to identify existing resources. The resource assessment will help you identify potential resource gaps, build support for prevention activities, and ensure a realistic match between identified needs and available resources.

When people hear the word *resources*, they often think of staff, financial support, and a sound organizational structure. However, resources may also include the following:

- Existing community efforts to address the prevention and reduction of substance abuse
- Community awareness of those efforts
- Specialized knowledge of prevention research, theory, and practice
- Practical experience working with particular populations
- Knowledge of the ways that local politics and policies help or hinder prevention efforts

It is important to focus your assessment on relevant resources (i.e., resources related to your priority problem). A well-planned and focused assessment will produce far more valuable information than one that casts too wide a net. At the same time, keep in mind that useful and accessible resources may also be found outside the substance abuse prevention system, including among the many organizations in your community that promote public health.

Assessing community readiness.

Community readiness is the degree to which a community is willing and prepared to take action on an issue. A readiness assessment will help you to:

- determine your community's level of awareness of, interest in, ability and willingness to support opioid misuse prevention initiatives
- pinpoint where you need to put your efforts to improve readiness
- select intervention strategies appropriate for your community's readiness level

Note: Readiness assessments should reflect principles of cultural competence by involving representatives from across sectors in planning and data collection and by collecting information in ways that are appropriate and respectful.

Take a moment to review how to perform the community readiness assessments. Please reference the "Assessing Community Readiness" document.

Once you have completed the first three steps, you will need to analyze your assessment data. By identifying the types (e.g., use of heroin, misuse of prescription opioids) and the extent of opioid misuse, and the populations and areas most affected, you can better understand the actual problem in your community.

Analyzing quantitative data. Examine the quantitative data you have collected to see if specific groups of people or other factors stand out. For example, are most heroin users young men? What proportion of overdoses in the community are nonfatal versus fatal? What specific substances are being used (e.g., heroin, prescription opioids) when overdoses occur? What were the circumstances around fatal overdoses (e.g., age, where, bystanders present, how it was handled, etc).

Examining trend data may suggest factors that influence opioid misuse and/or intervening variables. For example, if there was a sharp rise in opioid overdoses in the past year, what happened or what changed that may explain this? Did your community see an influx of an at-risk population? Was there an increase in heroin purity levels? Did any critical services accessed by the target population close or experience budget cuts?

Examine local data in relation to state data to determine if there may be something unique or unusual about the community associated with opioid misuse or its intervening variables. Is there something different about the problem in your community? Does the difference point to an intervening variable that may be important, or perhaps to a strategy to consider later in the process?

Analyzing qualitative data. The first step when analyzing qualitative data (e.g., key informant interviews, focus groups, open-ended survey questions) is to read and reread the materials and identify the different themes that emerge for each question. To increase confidence in the process, it is best to have two or more people do this independently. The themes generated by each coder are then compared with one another. If the themes identified by each coder differ, the coders need to reconcile their views and reach consensus. Record and report comments for each theme (verbatim responses or quotes may be preferred) and count the number of respondents who mentioned each theme. This is a primary indicator of its importance to participants. Tools used to assist in evaluating qualitative data are in the "Collecting Data" document.

Comparing the data. Compare quantitative data with qualitative data or vice-versa to see if they reinforce one another or raise new questions. For example, if the police chief tells you that the number of opioid overdoses has been unchanged for the past five years or more, but state and/or local hospital, ED, and death data show that overdoses have increased, what is the source of the discrepancy?

Analyzing the data you collected during the assessment process will help you answer the question: "Why is opioid misuse happening *here*?" Asking this question may help you select strategies that get to the unique root causes of opioid misuse in your community.

TASK 5: CHANGEABILITY

Now that you have identified your contributing factors and community readiness, the next step is to select which contributing factors you will target. A changeability assessment will allow you to identify (1) which contributing factors are most important to addressing opioid misuse in your jurisdiction and (2) which factors are more likely to change in response to your efforts.

Place each contributing factor on the changeability assessment tool in the "Deliverables & OMPP Needs Assessment Report" document.

	More Important	**Less Important**
High likelihood to change	High priority	Low priority
Low likelihood to change	Low priority	No priority

TASK 6: SUMMARIZING YOUR FINDINGS

After collecting and analyzing data on consumption, consequences, capacity and changeability, you will have to decide which contributing factors to target and why. Using your contributing factors, state the problem in specific terms. These problem statements will later be used to identify specific evidence-based strategies for your community to implement. A problem statement should encompass the WHAT, WHO, WHERE and WHY. Here are some examples:

✓ **Prescription opioid misuse** among **12 – 17 year olds in Baltimore City** as indicated by **past month and year use** is related to **social access** given that **people share prescription opioids**.

✓ **Heroin overdose deaths** among **Anne Arundel County residents** as indicated by **vital statistics data** is related to **enforcement** given **users' failure to call EMS/911 for fear of police investigation**.

The table below will help you identify the components of your problem statement:

What: Prescription opioid misuse				
Who (Demographic Group)	**Where (Geographic Location)**	**Indicator**	**Intervening Variable**	**Why (Contributing Factors)**
12 – 17 year olds	Baltimore city	Past month and year use	Social access	Friends/family intentionally or unintentionally providing access to prescription opioids

When you develop your problem statement, be sure to describe what actually exists that is problematic, rather than what is lacking. For example, a problem statement that reads "Hospital staff lack training on how to address opioid overdoses" assumes that addressing this lack by offering training alone will solve the problem. In reality, there may be many factors—such as lack of awareness among prescribing providers

regarding opioid overdose risk factors, and inadequate availability of post-overdose care—that also contribute to the problem. Defining a problem simply as a lack of something will narrow your planning focus and direct energy and resources to strategies that are not likely to be sufficient on their own, while other important factors are missed.

Keeping the focus on the priority behaviors, consequences, and/or underlying intervening variables at this stage in the planning process will help you select a comprehensive array of strategies that will be more effective in addressing the problems you have identified.

When writing your summary, keep these in mind:
- Identify one issue or problem at a time
- Avoid blame (e.g., say, "Young people do not have enough positive activities" rather than, "The kids here have nothing to do and are troublemakers")
- Avoid naming specific solutions (e.g., say, "Young people in our neighborhood are getting into trouble during after-school hours" rather than "We don't have a youth center")
- Identify outcomes that are specific enough to be measurable
- Reflect community concerns as heard during the assessment process

Table 1. Generic, brand and street names of prescription Opioids

Generic Name	Brand Names	Street Names
Morphine	MS Contin, Avinza, Kadian, Oramorph	Miss Emma, monkey, white stuff
Codeine		Captain cody, cody, schoolboy
Hydrocodone	Zohydro, Hysingla *With Tylenol – Lorcet, Lortab, Norco, Vicodin*	Vike, Watson-387
Hydromorphone	Dilaudid, Palladone, Exalgo	Juice, smack, D, footballs, dillies
Oxycodone	Oxycontin, roxicodone *With Tylenol – Percocet, Roxicent, Endocet*	Oxy, O.C., oxycotton, oxycet, hillbilly, percs
Oxymorphone	Opana	Biscuits, blue heaven, blues, Mrs. O, octagons, stop signs, O bomb
Buprenorphine	Butrans *With Naloxone -* Suboxone	
Fentanyl	Duragesic, Abstral, Actiq, Fentora	Apache, China girl, China white, dance fever, friend, goodfella, jackpot, murder 8, TNT, tango & cash
Meperidine	Demerol	Demmies
Methadone	Dolophine	Fizzies, amidone
Tramadol	Ultram *With Tylenol - Ultracet*	

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This document was adapted for use from the **Prevention and Reduction of Opioid Misuse in Massachusetts Guidance Document** by the Massachusetts Technical Assistance Partnership for Prevention (MassTAPP). The full document can be found here.