

***BALTIMORE CITY HEALTH DEPARTMENT  
BALTIMORE SUBSTANCE ABUSE SYSTEMS  
BALTIMORE MENTAL HEALTH SYSTEMS***

**OVERDOSE PREVENTION PLAN**

**Purpose and Problem Definition:**

Opioid misuse and abuse, resulting in injury and death, has emerged as a major public health problem. Based on the 2010 National Survey on Drug Use and Health, public health experts estimate more than 35 million individuals age 12 and older used an opioid analgesic for non-medical use some time in their life—an increase from about 30 million in 2002. The goals of this plan are to reduce fatal and non-fatal overdoses including the ingestion of opioids alone or in combination with other illicit and/or pharmaceutical substances, improve the management of overdose if it occurs, and reduce the amount of misused, abused and diverted prescription opioids.

**Section 1: Review and Analysis of Data**

A total of 165 alcohol and drug intoxication deaths were reported in Baltimore City in 2011. The total number of intoxication deaths has been trending downward between 2009 and 2011, with 232 intoxication deaths reported in 2009 and 172 intoxication deaths reported in 2010. Although the total number of intoxication deaths is trending downward, the number of prescription opioid-related deaths has increased annually between 2008 and 2011. In 2011, 80 of the 165 total intoxication deaths in Baltimore City were related to prescription opioids, with the greatest increases in methadone and oxycodone-related deaths. This trend is consistent with trends seen in other counties across the state. The number of heroin-related intoxication deaths has declined over the past few years, and Baltimore City has seen the greatest decline in heroin-related intoxication deaths as compared to other counties in the state. Intoxication deaths related to cocaine, alcohol and benzodiazepines have been relatively stable over the past few years.<sup>1</sup>

**Data and Analysis-Next Steps**

The data as currently available reports all demographic information in aggregate form, regardless of type of overdose death or location of residence. Because intervention strategies should target the populations most at risk, it is vital that we have access to more descriptive information stratified by type of overdose and location of residence as well as location of death.

1. Demographic information (gender, age, ethnicity, zip code of residence) by type of overdose death needs to be provided, or data should be provided in a way that allows BCHD, BMHS and bSAS epidemiologists to query this information. Information on insurance status and occupational status would also be helpful. Having this information will allow us to better understand the population at highest risk and to develop more effective intervention strategies. Intervention strategies for prescription opioid overdose

will be very different than those for alcohol or cocaine overdose, so it is important to understand which populations are at highest risk by type of overdose.

2. Ideally, we would have access to decedent identifiers (social security number, last name, date of birth, gender, etc) that would allow us to determine whether the decedents were engaged in drug abuse treatment, behavioral/mental health services, and/or the justice system. This information would allow us to better understand whether there were “missed opportunities” for overdose prevention education and will allow us to develop more effective intervention strategies. This information will also be necessary for the Local Overdose Fatality Review Team, which Baltimore City will pilot.

Because the number of overdose deaths related to prescription opioids has increased between 2008 and 2011, we are specifically interested in gaining a better understanding of the circumstances surrounding these deaths. To be able to fully understand the problem of prescription opioid deaths, much more information on these deaths is needed and is outlined below.

1. We have heard anecdotally that there has been increasing use of benzodiazepines in combination with opioids, which is known to cause respiratory depression and increased risk for overdose death. The current reporting mechanism only reports opioids as the cause of intoxication, even when other drugs are present.<sup>1</sup> More specific information from the toxicology reports is needed, particularly information on whether other substances were present in addition to prescription opiates.
2. More specific information on the source of the prescription opiates is needed when available- if the OCME report includes information about a prescribing physician, it would be useful to know whether the prescribing provider was an ED physician, primary care physician, pain consultant, etc. (or some combination of these if the decedent was receiving prescriptions from multiple sources). Once the PDMP is available, it will serve as a resource for information on prescribing physician(s). This information will allow us to better target the clinical community.
3. More specific information on existing comorbidities is needed when it is available in the OCME report- particularly information about any pain syndromes, mental health diagnoses, or mention of drug dependence. Having this information will allow us to better target our interventions for the clinical community.

The number of methadone-related deaths in Baltimore City has also been increasing between 2008-2011. Further information is needed about these deaths to allow for development of more targeted interventions.

1. As described above, having access to toxicology reports for methadone-related deaths would provide useful information on whether deaths resulted from combining multiple drugs, or whether the death was the result of methadone intoxication alone.
2. Information on the source of methadone (treatment center vs. physician prescribed vs. street-based purchase) will allow better intervention strategies to be developed.

## Section 2: Planned Interventions/Initiatives

Without having access to the aforementioned data regarding intoxication deaths in Baltimore City, it is difficult to develop specific interventions and initiatives that target the populations most at risk. Below we have outlined potential interventions, but these would need to be selected and informed by the pieces of information outlined in Section 1.

### (A) Education of the Clinical Community

1. Prescription Opiate Providers; including emergency room clinicians, pain management clinics, and mental health professionals
  - a. Once the PMDP is functional, campaigns to increase clinician awareness and participation will be initiated. Efforts will focus on reaching out to emergency room clinicians, pain management clinics, mental health professionals, buprenorphine providers and primary care clinicians.
  - b. Opiate prescribing clinical practice guideline recommendations for emergency room clinicians could be developed and distributed. These guidelines would be voluntary. New York City recently developed and disseminated such guidelines, which were well-received by ER clinicians.<sup>2</sup>
  - c. When prescribing clinicians are identified in the OCME report or through the PMDP, these clinicians should be notified of the intoxication death. This information is extremely useful for individual physicians and can help to raise awareness surrounding the risk of prescription opiates.
  - d. If it is determined that many of the opiate-related deaths are among individuals with chronic pain syndromes, increased focus on case management and/or care coordination services could be implemented. Additionally, the development of education materials for all pain management specialists on the identification and treatment of patients with substance use disorders and training on brief interventions and referral to treatment resources could be impactful.
  - e. Similarly, if it is determined that many of the opiate-related deaths are among individuals with co-existing mental health diagnoses, increased focus on case management and/or care coordination among mental health providers and somatic care providers should be implemented.
2. Methadone Providers- Because the number of methadone-related deaths has been increasing in Baltimore City, we recognize the importance of developing interventions that specifically target methadone providers.
  - a. Before initiating an intervention, we would need more information from the toxicology reports from the methadone-related deaths. If decedents were using other substances in addition to methadone, this would be an important piece of information for methadone providers so they can appropriately educate their staff and clients. If it is determined that benzodiazepines are a contributing factor to the methadone-related deaths, benzodiazepine prescribing clinical practice guidelines should be disseminated among methadone providers.
  - b. Additionally, information on whether decedents were receiving methadone from a substance abuse treatment provider should be collected. If a decedent is associated with a substance abuse treatment program, the treatment program

should be alerted of his or her death so the program can review the case and make any necessary program improvements to be able to prevent future overdose deaths.

- c. Methadone treatment providers will be strongly encouraged to incorporate naloxone education and provide naloxone prescriptions to all clients receiving methadone.
3. Non-Methadone Substance Abuse Treatment Providers
    - a. If personal identifier information is reported on decedents, we will be able to determine whether these individuals were engaged in care at a bSAS-funded substance abuse treatment provider and will allow us to better target messages to substance abuse treatment providers.
  4. General Medical Community
    - a. Efforts to increase implementation of Screening, Brief Intervention and Referral to Treatment (SBIRT) will increase in Baltimore City if funds are received from a federal grant application submitted by the Alcohol and Drug Abuse Administration to SAMHSA. If awarded, planning for implementation will begin in October 2013.

## **(B) Outreach to High-Risk Individuals and Communities**

As discussed in Section 1, demographic data needs to be reported for each type of overdose death so that appropriate messaging can be developed. Possible strategies for targeting populations in need of interventions are listed below.

1. If further investigation of prescription opioid-related deaths shows that many of the decedents are purchasing these drugs on the street (as opposed to getting them through a clinician/pharmacy), street-based sources of methadone and prescription opioids should be identified and targeted for public service campaigns. Lexington Market has been identified as one potential location where prescription drugs are often sold. The “Keep Calm and Carry Naloxone” campaign could be rolled out at Lexington Market.
2. Demographic data (specifically age, gender, and zip code) should be used to determine appropriate locations for community-based overdose prevention programs and campaigns targeting specific demographic groups- examples include high-school students, people using public transportation, clients visiting DSS offices, WIC offices, STD clinics, community centers, as well as inmates at all of the city jails.
3. All substance abuse facilities will be strongly encouraged to incorporate naloxone prescribing programs as part of each client’s treatment plan. Overdose prevention literature will also be made available to all substance abuse treatment facilities as well as other city agencies such as WIC, STD Clinics and Department of Social Services and their partner agencies.
4. Overdose prevention education will continue to be offered to inmates at the jail via the ACT-SAP Program which is a drug court diversion program. Naloxone will be made available to those inmates who received this education upon their release from incarceration.

**(C) Other Interventions/Initiatives**

1. Baltimore City has volunteered to pilot a Local Overdose Fatality Review Team. We feel that through this process, we will be able to gain a better understanding of the circumstances surrounding overdose deaths in the city, which would better inform intervention efforts moving forward.
2. It is understood that the city has the only operating overdose prevention program in the state and has developed all of the literature used by other health departments around the state. The city is also providing technical assistance to other jurisdictions so they may start their own overdose prevention programs.
3. Baltimore City will continue to promote the use of evidence-based therapies such as methadone, buprenorphine, and vivitrol for all opioid addicted individuals.

### Section 3: Performance Metrics

**Goal 1:** Identify meaningful ways to obtain data that will allow Baltimore City to develop more targeted interventions by June 2014.

<b>Problem Statement</b>	<b>Strategies</b> ( <i>Identify each strategy you will employ to affect your goal.</i> )	<b>Activities</b> ( <i>List each activity implemented to support the strategy</i> )	<b>Measurable Outcomes/ Timeline</b> ( <i>how much impact by when.</i> )
<i>Baltimore City does not currently have a way to systematically review individual case reports of overdose deaths</i>	<i>Development of a local overdose fatality review team(LOFRT)</i>	<i>Identify members of fatality review team</i>  <i>Identify process for reviewing all overdose deaths in Baltimore City</i>  <i>Work with OCME to make sure that all information needed from reports are available</i>	<i>Local Overdose Fatality Review Team will start meeting by January 2014</i>
<i>Baltimore-City specific data is currently not being reported in one central location (last report completed was for 2009 deaths)</i>	<i>Development of an annual Intoxication Deaths report for Baltimore City</i>	<i>Baltimore City Health Department and Baltimore Substance Abuse Systems epidemiologists will discuss how to collaborate to develop this report</i>  <i>BCHD and BSAS will work with OCME to ensure confidential transfer of relevant overdose death reports</i>  <i>BCHD and BSAS epidemiologists will work together to develop annual report</i>	<i>2012 report will be completed within six months after receiving data and reports from OCME</i>

**Goal 2:** Increase the number of individuals screened for at-risk alcohol and drug use and ensure those individuals are referred for treatment services by June 2014.

<b>Problem Statement</b>	<b>Strategies</b> ( <i>Identify each strategy you will employ to affect your goal.</i> )	<b>Activities</b> ( <i>List each activity implemented to support the strategy</i> )	<b>Measurable Outcomes/ Timeline</b> ( <i>how much impact by when.</i> )
<i>Many individuals who are abusing alcohol and drugs are not identified, referred, or engaged in alcohol/drug treatment programs</i>	<i>Expand Screening, Brief Intervention and Referral to Treatment (SBIRT) in Baltimore City</i>	<i>Provide SBIRT trainings to BMSI clinics (federally qualified health center)and HealthCare for the Homeless</i>  <i>Provide support in implementation of systematization of SBIRT into</i>	<i>BMSI and HCH to have SBIRT programs implemented by June 2014</i>  <i>Number of patients screened for risky alcohol or drug use at</i>

		<p><i>daily clinical practices at BMSI and HCH</i></p>	<p><i>BMSI and HCH within one year of implementation of SBIRT at these sites (June 2015)</i></p> <p><i>Number of patients at BMSI and HCH who receive brief intervention for positive screen results within one year of implementation at these sites (June 2015)</i></p> <p><i>Number of patients referred to substance abuse treatment</i></p> <p><i>Number of patients successfully linked to substance abuse treatment</i></p>
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**Goal 3:** Decrease deaths related to opiate overdose by 5% annually over the next two years for a total reduction of 10% by July 2014.

<b>Problem Statement</b>	<b>Strategies</b> ( <i>Identify each strategy you will employ to affect your goal.</i> )	<b>Activities</b> ( <i>List each activity implemented to support the strategy</i> )	<b>Measurable Outcomes/ Timeline</b> ( <i>how much impact by when.</i> )
<i>General population awareness surrounding risks of opioid overdose is low</i>	<i>Creation of a Baltimore City Overdose Awareness Day (August 21, 2013.) This event will coincide with the start of the “Keep Calm and Carry Naloxone” campaign</i>	<p><i>Conduct overdose prevention and education trainings throughout the day</i></p> <p><i>Hold a candlelight vigil in front of City Hall to honor those who have passed away from drug overdose</i></p> <p><i>Host an informational session for the community prior to the candlelight vigil and invite community agencies</i></p>	<p><i>Number of individuals trained on overdose on August 21, 2013</i></p> <p><i>Number of individuals in attendance at the Overdose Awareness Day event on August 21, 2013</i></p>
<i>Methadone-related deaths have been increasing annually between 2008 and 2011.</i>	<i>Encourage methadone providers to incorporate naloxone education and naloxone prescribing into</i>	<i>Survey methadone providers in the city to determine what percentage currently provide methadone education and</i>	<i>Number of methadone treatment centers/providers that receive educational</i>

	<i>routine part of care</i>	<p><i>prescriptions</i></p> <p><i>Educate methadone treatment providers on the importance of providing naloxone and how it can prevent overdose deaths</i></p> <p><i>Educate methadone providers on how to train clients on naloxone administration</i></p> <p><i>Work with medical providers in methadone clinics to ensure they are aware of the laws surrounding naloxone prescribing and encourage them to prescribe it for all clients on methadone</i></p>	<p><i>materials on Naloxone as overdose prevention method by June 2014</i></p> <p><i>Number of clients within methadone treatment programs who received overdose education by June 2014</i></p> <p><i>Number of clients within methadone treatment programs who received Naloxone prescriptions by June 2014</i></p> <p><i>30% increase in the number of methadone treatment providers who offer Naloxone education and prescriptions to clients one year after the initial survey is completed</i></p>
<i>Many health care providers are not aware of the upcoming PMDP release, nor will they know how to use it to determine whether a patient is receiving opiates or other controlled drugs from other providers</i>	<i>PMDP education campaign to healthcare providers</i>	<p><i>BSAS will collaborate with the State of Maryland to ensure that outreach efforts are not duplicated</i></p> <p><i>BSAS will work with all BSAS-funded buprenorphine and methadone providers to ensure that they are aware of the PMDP and are using it appropriately.</i></p> <p><i>BMHS will outreach to mental health providers in Baltimore City to ensure their awareness of the PMDP</i></p>	<p><i>Number of clinical providers in Baltimore City who receive information on how to sign up for PMDP and how to use it effectively</i></p> <p><i>Percentage of new providers participating in PDMP each quarter</i></p>
<i>Emergency room physicians often feel they need to prescribe opiates to patients who come in complaining of pain</i>	<i>Development and dissemination of opiate prescribing clinical practice guideline recommendations for emergency room clinicians</i>	<p><i>Conduct literature review on best practices for ER clinicians prescribing opiates</i></p> <p><i>Use PMDP database to look at current prescribing practices among ER clinicians in</i></p>	<i>Public dissemination of Recommendations for Opiate Prescribing Clinical Practice Guidelines for ER clinicians in Baltimore City by</i>

		<p><i>Baltimore City</i></p> <p><i>Develop evidence-based clinical practice guideline recommendations for ER clinicians in Baltimore City</i></p> <p><i>Collaboration between BCHD and the Mayor's office to get political backing for these recommendations</i></p> <p><i>Work with MedChi, local news and radio stations, newspapers, and local hospitals to ensure dissemination of recommendations</i></p>	<p><i>June 2015</i></p>
<p><i>Opioid maintenance providers are often not aware of potentially harmful interactions between benzodiazepines and opiates</i></p>	<p><i>Educate opioid maintenance providers on risks of benzodiazepine use with opiates</i></p>	<p><i>Development and dissemination of benzodiazepine prescribing guidelines for opioid maintenance providers</i></p> <p><i>BSAS-sponsored dinner to review guidelines with opioid maintenance providers</i></p>	<p><i>Number of providers who receive the guidelines</i></p> <p><i>Number of providers who attend the bSAS-sponsored dinner</i></p>
<p><i>Incarcerated individuals are at higher risk for overdose upon release</i></p>	<p><i>Provide overdose prevention education to jail inmates</i></p>	<p><i>BCHD Community Risk Reduction Services will provide weekly overdose prevention education to jail inmates</i></p> <p><i>Inmates who have received the overdose prevention education will receive naloxone upon release</i></p>	<p><i>Increase number of jail inmates who receive overdose prevention education by 5% during the 2014 calendar year as compared to 2013</i></p> <p><i>Increase number of individuals who receive Naloxone upon release by 5% during the 2014 calendar year as compared to 2013</i></p>

<sup>1</sup> [http://adaa.dhmh.maryland.gov/Documents/content\\_documents/PDMP/DrugandAlcoholReport\\_final.pdf](http://adaa.dhmh.maryland.gov/Documents/content_documents/PDMP/DrugandAlcoholReport_final.pdf)

<sup>2</sup> Hillary V. Kunins, Thomas A. Farley, Deborah Dowell; Guidelines for Opioid Prescription: Why Emergency Physicians Need Support. *Annals of Internal Medicine*. 2013 Apr;(0):.