Transcript: DMHAS Overdose Responder Training

#1 TITLE SLIDE.

#2 INTRODUCTION AND PURPOSE

Welcome to Overdose Responder training presented by the NJ Department of Human Services / Division of Mental Health and Addiction Services.

This webinar is intended to train laypersons in responding to opioid overdose emergencies and in administering the opioid antidote naloxone, also known as NARCAN. Note that we will use the former term, naloxone, here, as it is the name of the generic drug that is widely available.

This training will help raise awareness about using naloxone and about how to respond to an overdose emergency involving a family member, friend, or associate. By training such potential bystanders in opioid emergencies, there is a greater likelihood that someone will be there to assist victims and prevent their death from overdose. The webinar will particularly assist those who may want to talk to their family physician or their community pharmacist about getting a prescription for naloxone and obtaining an intranasal applicator. Rules for prescribing Naloxone have recently been relaxed in NJ and physicians can now prescribe it in the name of the person to whom the prescription is issued, rather than to a person who will eventually receive the drug.

This training will allow you to recognize when an opioid overdose is occurring; assess victims, call for and provide them with emergency assistance, including rescue breathing; and to administer intranasal Narcan (naloxone).

This webinar presentation does not replace the experience of a live, hands-on training that is or will shortly be available at locations around the state.

#3 WHAT IS AN OPIOID?

Opioids are a class of drugs that contain chemicals that bind to specific receptors in the brain, spinal cord, and gastrointestinal tract. These opiate

receptors control a number of vital brain and body functions, such as breathing

Opioids get their name from Opium, a chemical in the opium poppy plant, which is refined to make heroin and opium. Opioid medications are now being manufactured, and a large number of synthetic and semi-synthetic opioid drugs are now available.

There are many prescription opioid drugs that are used to treat pain. Despite their many benefits, the drugs are used illegally because these have euphoric effects, and continued use of these medications can cause a physical and psychological dependence. The examples given are just a few of the dozens of the opioid drugs now on the market.

When prescription opioid drugs are crushed, dissolved in liquid to be injected, or are snorted or smoked, these are made more potent than if these were ingested in their original pill or tablet form. This increases the likelihood of their being involved in an overdose.

Heroin can also be mixed or “cut” with these illicitly obtained opioid medications, such as is the case with fentanyl-laced heroin, which can increase its potency.

#4 HOW DOES OPIOID USE RESULT IN AN OVERDOSE?

When opioid drugs attach to opiate receptors in the brain and nervous system, a number of essential body functions and organs are affected, including the persons’ level of consciousness and their breathing or respiration. When the body receives an unusually large dose or highly pure opiate that is highly potent, all of the brain receptors are activated and breathing is slowed and or shut down completely. This is particularly a risk when the drugs have an increased potency because these are taken by intravenous injection, or by snorting, as opposed to oral use.

A number of bodily functions are affected in an opioid overdose. However, by suppressing breathing, the body does not get oxygen, which damages the brain and other body organs, leading to death if no interventions are made.

#5 RISK FACTORS FOR OPIOID OVERDOSE

Let's now look at the reasons why some individuals have increased risk of opioid overdoses. If someone regularly using opioids undergoes a period of abstinence for several weeks or months because of being incarcerated, hospitalized, or just stopping use because of inability to obtain the drug, and then uses the drug again in the same amount as they did before they stopped, the risk of overdose is greatly increased.

Street drugs are risky because these have unknown purity, and so the content and strength of the chemical substances in the drugs can differ significantly.

Heroin can be mixed or "cut" with illicitly obtained medications, such as is the case with fentanyl-laced heroin. Fentanyl is much more potent than is heroin when taken this way, so use of this street drug can result in overdose.

In general, pills that are normally taken orally have greatly increased potency when crushed and then snorted or injected.

Mixing opioid drugs with other sedative drugs and alcohol is also very risky. Drugs that are in the chemical class known as benzodiazepine medications (e.g., Valium, Ativan, Librium, Xanax, etc.) used to treat anxiety and insomnia, are sedating and can increase risk of dying of overdose.

Using drugs alone is another risk factor, as these individuals will not be able to get help if they overdose.

Individuals who are older or in Poor health, and having heart, lung and liver problems, will increase the likelihood that someone having an opioid overdose will die as a result

#6 WHAT IS THE ROLE OF NALOXONE IN OVERDOSE EMERGENCIES?

Naloxone is a drug with no abuse potential that has a very favorable safety profile. On rare occasions, nausea, vomiting, hypertension, pulmonary edema, tachycardia, or arrhythmia have been reported following naloxone

administration. This slide illustrates how naloxone works as an overdose antidote by displacing the opioid drug in the nervous system when it binds to the opioid receptors. Essentially, it kicks out the opioids that reside on the brain receptors so that these opioids cannot cause harm.

Naloxone only works to reverse the effects of opioid drugs, and not for any of the effects of other drugs that may have en taken, such as cocaine, amphetamines, or Valium. However, it is necessary to use naloxone if individual has an overdose involving both opioids and other drugs.

It is important to note that naloxone is relatively short acting, so its effects may not endure long enough to prevent the effects of opioids returning, so professional medical help must be called; in addition, because of potential after effects and medical complications from an overdose that will need medical attention. Thus, even if they get naloxone, individuals who overdose need to be seen by professional medical personnel as soon as possible afterwards.

#7 INTRANASAL NALOXONE ADMINISTERED BY LAYPERSONS: SAFETY AND EFFECTIVENESS

Naloxone has been used in treating opioid overdoses for several decades, and the experience has demonstrated that it is safe to use, even when administered by trained laypersons. Even if an individual has not taken opioids, naloxone will have little or no effects. There are some risks associated with its use in opioid overdoses, however, and we will discuss these shortly.

Individuals can administer naloxone in two ways, either intra-nasally or by injection. Most medical professionals use the injectable form, but this webinar will focus on using naloxone intra-nasally. A new formulation of naloxone, called Evzio, which comes with an applicator for self-injection, has also been recently marketed in the U.S.

The intranasal route of administering naloxone is effective in managing most overdoses, although overdoses that involve higher potency opioids may not respond. Note that victims do not have to be breathing to allow

intranasal naloxone to work, as it is administered by an atomizer that coats the nasal passages and allows the drug to be absorbed into the bloodstream and go right to the brain.

The rationale for using an intranasal application involves its safety and ease of use. There is a much lower risk of accidental transmission of blood-borne infectious diseases that can result from a needle stick. Most laypersons also find using an intra-nasal device easier than a needle to use. Naloxone by the intranasal route is also more slowly absorbed, so it is less likely to result in the overdose victim having opioid withdrawal symptoms. One issue with intra-nasal naloxone is the need to obtain the intranasal applicator and atomizer, which are not sold in most pharmacies. Information about obtaining naloxone, as well as the applicator and atomizer, will be posted on the Division website when available.

#8 WHAT ARE THE LEGAL PROTECTIONS FOR OVERDOSE RESPONDERS?

The Opioid Antidote and Overdose Prevention Act was signed into law by the Governor on May 2, 2013. The "Good Samaritan" component of the law provides legal protections to the overdose victim and to the person who seeks medical assistance for the overdose victim. Thus, the immunity from arrest, prosecution, or conviction for drug offenses is in effect when a person, in good faith, seeks medical assistance for him/herself or for another person assisting an overdose victim and calling for medical assistance. These protections include immunity from arrest for use/simple possession offenses, as well as immunity from civil penalties.

Although the original law had only specified legal protections to the victim and to the individual actually calling for assistance for the victim, an Attorney General Directive extends immunity to all persons who collaborate in a request for medical assistance.

The Opioid Antidote and Overdose Prevention Act of 2013, authorizes the DHS to develop a bystander training program that includes the use of naloxone in overdose emergencies. The Department will be issuing grants to designated addiction agencies and programs to provide this training and

to distribute naloxone kits to individuals who complete the training, in addition to providing take-home naloxone to clients in these treatment programs.

#9 HOW DO YOU RECOGNIZE THAT AN OPIOID OVERDOSE IS OCCURRING?

Here are the primary signs and symptoms of an opioid overdose. A decreased rate and depth of breathing, or difficult and labored breathing occurs; and breaths may be accompanied by sounds of gurgling or deep snoring. This depression of the respiratory system is usually the cause of death from an overdose.

As a result of the lack of oxygen, the victim's skin becomes blue, especially around the lips, and the victim's body will also feel cold and clammy.

Another sign of overdose is a loss of alertness and a drowsiness that can cause the overdosed person to temporarily fall asleep or have a complete loss of consciousness that can be accompanied by seizures.

As you see in the photo, pinpoint pupils are another sign that can help determine that an opiate medication is the cause of the overdose.

#10 DIFFERENTIATING BETWEEN AN OPIOID OVERDOSE AND AN OPIOID HIGH

It is important to recognize that individuals using opiate drugs will demonstrate certain physical signs and symptoms when they are high that do not suggest that they are overdosing. These signs are different than from those that indicate an overdose. This slide has a comparison of the signs and symptoms that can help to distinguish between these two states.

#11 WHAT SHOULD A BYSTANDER DO IN AN OPIOID OVERDOSE?

Let's now discuss what to do in an overdose. This is a summary of the actions needed in overdose emergencies. We will be going over each of these steps in more detail.

Note that the procedures discussed in these next several slides will be actually demonstrated in live training, and that Overdose Responder trainees will also learn by actually performing these skills.

#12 ASSESS AND STIMULATE

If you come upon someone who is non-responsive and a possible victim or overdose, try to make vigorous efforts to arouse the victim. Yell the victim's name. You can also apply a painful but non-injurious stimulus to the victim's body; one way to do this; it consists of rubbing your knuckles across the victim's sternum or breastbone.

If the victim still does not respond, check how he/she is breathing. If the victim is not breathing, it is urgent to get medical help as soon as possible, so calling 911 first even before any rescue efforts are undertaken if no one else is around to do this. Be sure to tell the dispatcher that the victim may have overdosed and is not breathing, as this makes the call a priority and help will arrive as soon as possible. If the victim is breathing, you can briefly leave the victim to call, but be sure to place victim on their left side to prevent choking; this is called the Recovery Position and will be described shortly.

It is critical to then perform mouth to mouth breathing, which is also called rescue breathing, as soon as possible to get oxygen into the victim's vital organs. If the victim is still not breathing or regaining consciousness after these efforts, then the naloxone must be used.

#13 PERFORM RESCUE BREATHING

If you initially determine that an overdose victim is not breathing, you must perform rescue breathing. This is a slide from the Harm Reduction Coalition website that illustrates Rescue Breathing.

Begin by tilting the victim's head back with one hand while using two fingers of the other hand lift their chin up; this ensures that the airway is open. Then, quickly check the mouth, both by sight and by the sweep of a finger, to see that it's free of anything that might be blocking the airway.

Next, pinch the nose and cover the victim's mouth with yours for an airtight seal. If a mouth shield is available, this should be used.

Start Rescue Breathing by giving the victim two full breaths and watching for the victim's chest to rise. If the chest does not rise, then re-tilt the head and try again. Then determine if the victim is beginning to breathe on his own.

You will need to look, listen and feel for breathing in order to determine whether the victim is breathing. In addition to watching for the chest to rise, this involves feeling for the air and hearing the breathing from the mouth. Continue giving one breath every 5 seconds while checking to see whether the individual begins breathing on his own.

Note that rescue breathing consists of breathing for the victim, and it is a component of cardiopulmonary resuscitation (CPR). However, rescue breathing is different from what is done in CPR in that manual chest compressions are not needed here.

#14 ASSEMBLING THE INTRANASAL NALOXONE APPLICATOR

While naloxone kits may differ from the one displayed, each will consist of a vial of naloxone, a plastic applicator syringe and an intra-nasal atomizer(technically, it is called a mucosal atomization device). Note that kits can have one or two vials or ampules of naloxone (each vial contains one full dose). Some kits also come with a mouth shield.

The general procedure for assembling these is the same; to assemble the intranasal naloxone, pull off the yellow caps from the plastic syringe applicator and screw on the atomizer. Pull off the cap from the naloxone vial (this is red but sometimes this can be purple) and screw it on to the bottom of the syringe/applicator. The naloxone is now ready to use.

This slide also provides a link to a 3 minute video of a demonstration of how to assemble and use the intranasal naloxone.

#15 ADMINISTERING THE INTRANASAL NALOXONE

This slide shows how to give the naloxone to an overdose victim. If the responder is alone with the victim, the naloxone should be given after several breaths of rescue breathing. Half of the dose (1 cc) is given in one nostril, and after one minute, the other half dose (1 cc) is given in the other nostril.

Keep in mind that, as the drug is absorbed into the tissue in the nasal passages, this area must be clear for the drug to work, and heavy mucus or blood in the nostrils can interfere with the absorption of the naloxone. Because a victim's nasal passages have to be cleared, rescuers may need to blow air through the nasal passages, as well to clear them of debris.

Although rescue breathing usually is provided via mouth to mouth, some reluctant rescuers can cover the mouth and force air through the nasal passages, as an alternative.

After giving the drug, carefully monitor the victim, especially the victim's breathing, in order to see the response. If no response occurs after about 2-5 minutes and another vial of naloxone is available, connect the intranasal applicator to this vial and apply another full dose (e.g., half of the vial in each nostril).

#16 WHAT DO YOU DO WHEN A VICTIM BEGINS BREATHING AND RECOVERING?

Once naloxone has been administered, it is vital to continue to assist and provide care for the victim, and to monitor the effects of the naloxone. This is necessary even when the victim begins to respond and to breathe again. Those assisting in an overdose should stay with the victim until professional medical help arrives. With protections of the New Jersey law just discussed, those assisting should not have fear of legal repercussions.

This is also necessary to assist with any complications that may occur. One complication is opioid withdrawal. The blockade of the opioid receptors by naloxone suddenly stops the effects of the opioid on the nervous system, which can cause the sudden onset of opiate withdrawal. Some of the

symptoms of withdrawal are listed here. Keep in mind that even though naloxone use may lead to withdrawal, this state is not usually life threatening.

Also be aware that as the effect of the naloxone fades, the harmful effects of opioids can return, especially when the individual has taken a long acting opioid.

An individual who is unconscious can have a loss of normal swallowing reflexes; as these individuals may vomit, this can cause choking and aspiration, as contents of the mouth or stomach go into the victim's windpipe. Thus, unconsciousness, or nearly conscious victims, need to be placed on their side in what is called the Recovery Position.

#17 PLACING VICTIMS IN THE RECOVERY POSITION

This slide from the Harm Reduction Coalition shows how to place victims in the Recovery Position, which is necessary to ensure the safe care of individuals who are unconscious but breathing. This position allows fluids to drain from the victims mouth and stabilizes the victim's body from movement. The victim should be laid on their left side to avoid aspiration into the right lung system, which has three lobes (upper, middle, and lower) as opposed to the left which only has two lobes (the upper and lower).

#18 STAYING WITH THE OVERDOSE VICTIM

As was described, naloxone is active for a relatively short time, so it will wear off and overdose victims may begin to experience overdose effects again, especially if they have the used longer acting opioids. In addition, individuals who survive an overdose need treatment for the potentially serious medical issues that have been described, which will vary depending on the nature of their overdose and their underlying physical status. This means that overdose victims **must** receive medical care as soon as possible after receiving naloxone.

If an individual recovers from an overdose and begins to experience withdrawal, the desire to take more opioids may occur. Obviously, this could prove deadly for the individual and should be prevented.

It is also important to remain with the victim in order explain what happened during an overdose to the emergency response staff who arrive on the scene. They will need to know what happened and the status the victim as clearly and concisely as possible.

#19 WHAT MUST BE DONE IN THE AFTERMATH OF AN OVERDOSE

Individuals who survive an opioid overdose are at significant risk to overdose again in the future if they do not get treatment for their addiction and continue to use opioid drugs. However, there may be an opportunity for individuals who have survived an overdose to get into treatment, even though they were not interested or motivated to do so

If a naloxone kit provided by a designated program, a report back form on the use of the kit may be requested. Completing and returning the form provides information about how the naloxone was used and whether it had helped to prevent an overdose death, and it may also allow the responder to receive a replacement kit.