INTERVIEW FINDINGS BY CATEGORY: EXPERIENCES WITH OVERDOSES

Experiences with Overdoses

OPIOID CONSUMERS

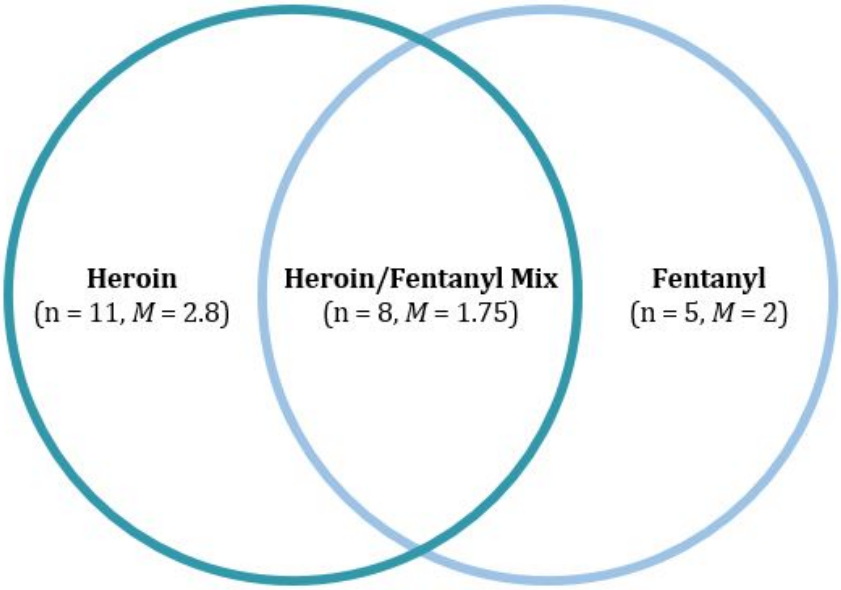

Figure 8. Overdose Drugs/Combinations Among Subsample

All but two of the twenty consumers interviewed for this study endorse seeking out drugs/batches that cause overdose:

90%

of those interviewed admitted to seeking out batches of drugs which were known to cause overdose

"[Overdosing is] one of the best highs you'll ever have."

"If they have the option between something that people have OD'd on and something they haven't they probably will go with the stuff they OD'd on just because they know it's good. There's not big groups of people walking around the streets turning down things unless people died on them."

The majority had experienced at least one opioid overdose and it was more than likely either a heroin overdose or an overdose on a FLH. Inhalation and intravenous use were the routes of administration most associated with overdose. Overdose on

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pure fentanyl was the least likely reported opioid overdose among consumers. It is important to note that while consumers believe they know what they are using, this is not a perfect science. Seven of the twenty consumers had not overdosed personally, but all knew/witnessed people who had overdosed, many of whom had overdosed and died. When asked what about the presumed causes of the recent spate of overdoses in New Hampshire, consumer responses were without hesitation and unequivocal: ***"Everybody knows what it is. It was just fentanyl… whatever the fuck they're putting in it to make it stronger than just plain fucking dope… Every time people get batches they just do what they're used to doing, not even realizing that just because you bought it from the same dude doesn't mean that it's the same stuff."***

All agree that fentanyl is the drug to blame for the increased number of overdoses in New Hampshire.

First and foremost, all agree that fentanyl is the drug to blame for the increased number of overdoses in New Hampshire and that this is due to its relative potency compared to heroin. The qualifying remark, ***"whatever the fuck they're putting in it to make it stronger than just plain fucking dope,"*** highlights another common denominator across interviews, namely uncertainty about the product available on the street. Consumers know this product is more powerful, and they are certain that fentanyl is involved. Consumers also believe they know how much product they will need to use to keep from getting sick and/or get high *and* they readily acknowledge seeking the drugs or batches that are known to have caused overdoses among friends or in their area. This is where the certainty ends.

There is frank discussion of gray areas and/or dimensions of the uncertainty that warrant attention: inability to predict the concentration (product variability), inconsistencies due to perceived chemical miscalculations, and inexperience with fentanyl high (delayed onset). Consumers' recollections of overdose experiences, as well as assessments of friends' overdose experiences are punctuated by talk of notions that dealer supplies are increasingly variable, e.g., ***"just because you bought it from the same dude doesn't mean that it's the same stuff,"*** and ***"you don't know what you're getting anymore… there's research chemicals; I know this because there are kids [in drug court] who tell me they get high and … they're not failing any drug tests."***

Additional uncertainty is evidenced by frequent mention of inconsistencies due to perceived chemical miscalculations during the drug mixing or cutting process: ***"People are cutting it with other materials to get more weight out of it… they'll be like, 'it should hold up,' but it ends up separating…then all of a sudden you'll be doing a bag and it'll be garbage and you'll get to***

the bottom and all of a sudden it'll be powerful" and ***"I had been using in small increments, and I wasn't getting high. I was getting high but not what I expected. Then I got down to the bottom of the bag and I did it; that's when I went out. I actually smashed my head off something… I woke up to my mom and the ambulance and the police… inconsistency of the portions… It was not strong in the beginning, and then it was all in the bottom of the bag or something."***

An additional variable that introduces further uncertainty into an already highly imprecise scenario is the inexperience consumers report with a FLH high. Several interviewees talked about a delayed onset of the high as a potential contributor to overdose. One person said, ***"[Fentanyl mix] feels different… I think people don't think they are as high as they are, and they use again and put themselves over."***

Folk Overdose Reversal Methods

A consequence of fearing legal prosecution for overdose was the use of folk methods overdose reversal methods before calling 911, including cold showers or co-ingestion of stimulants. R/ED personnel particularly discussed encountering the cold shower folk method of overdose reversal.

> *"There's a couple movies and some misinformation over the years that if somebody is overdosed on heroin you stick them in the shower… Unfortunately, that's not true, so we found everybody from people who've been brought in from the shower, we find that very commonly. We've seen people with ice shoved down their pants. It's almost kind of comical at times because we try to tell these people this doesn't work." (EMS)*

Although R/ED personnel seemed slightly bemused by widespread beliefs in the power of cold showers to reverse overdoses, ED personnel expressed concern at lay beliefs that the combination of opioids and stimulants may prevent or reverse overdose.

> *"Anecdotally, I've had the opportunity to ask a couple of them about that combination [opioids plus methamphetamine or cocaine]. Interestingly, some have said that, well, I thought that maybe that way I wouldn't overdose on the heroin, that the overdose wouldn't affect me." (ED)*

Unfortunately, studies of methamphetamine and heroin co-ingestion suggest that the drugs have synergistic effects that may increase the drugs' lethality (Trujillo 2011, Uemura 2003), perhaps contributing to worse outcomes for consumers.

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FIRST RESPONDERS AND EMERGENCY DEPARTMENT PERSONNEL

Breadth and depth of the opioid problem

The massive breadth and depth of the opioid problem in New Hampshire was a major theme emerging from the responder interviews. R/ED personnel described the opioid problem as being ***"extensive," "prominent,"*** and an ***"absolute epidemic"*** that ***"affects everybody, from unborn children to the elderly. It ruins so many lives. It ruins so many families. It's just horrific"*** *(EMS).*

> ***"The overdoses in days gone by would have taken place in people's homes or apartments, and now we're seeing them in public parking lots, cars." (Fire)***

While R/ED personnel noted that opioid use previously may have been more prevalent among young adults and those with lower socioeconomic status, the majority acknowledged that opioid use now impacts every demographic, ***"has no boundaries,"*** and ***"doesn't discriminate."*** One firefighter explained this shift: "***We're seeing a lot more than we ever did. It was always kind of scattered, small numbers every year, and tended to be people who we would consider to be chronic drug users, but that doesn't seem to be the case in what we're seeing now"*** (Fire).

Another paramedic described the ubiquity of opioid use: ***"There's no pattern. It affects everyone, rich, poor, White, Black, Asian, Hispanic, Middle Eastern. I mean, it doesn't matter if you live in a van down by the river or a mansion on the hill. It can affect you, and it will affect you"*** *(EMS).*

A subset of R/ED personnel specifically referred to the pervasiveness of opioid use among the current cohort of young adults in New Hampshire, ***"between the ages of twenty and forty"*** *(EMS),* labeling this cohort as a ***"lost generation."*** In conjunction with demographic shifts in the prevalence of opioid use, responders noticed shifts in the geographic locations of overdose events from urban to more rural settings, and from private homes to public locations. One responder explained that more overdoses are happening in vehicles: ***"I'm seeing more people behind the wheel now, in the past 10 years than ever before. People think that it's a recreational drug, like you're at the bar and then just heading home"*** *(EMS).*

New Hampshire residents between the ages of

20-40

have been called the 'lost generation' due to the opioid epidemic

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R/ED personnel also spoke extensively about the negative impact of New Hampshire's opioid use problems on families. In addition to intergenerational patterns of substance use, R/ED personnel discussed how the effects of opioid use had immediate deleterious impacts on families, ***"sort of like throwing a rock in a pond. You can see those concentric rings going out"*** *(EMS).*

Parents and spouses sometimes contacted the responders, begging for help finding treatment for their loved one. Many responders had arrived at overdose events and found children witnessing their parent overdose.

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"You kind of look and see what it's done to families, too… whether it was kids looking on, whether it was parents at their wit's end, spouses at their wit's end, neighbors shaking their heads, there was always some impact outside that specific person or area." (EMS)

Causes of overdoses

R/ED personnel overwhelmingly reported that they believed the FLH was responsible for the increase in opioid overdoses. As one police officer stated, ***"it's a pretty dramatic increase, and I would say that's due to the fentanyl"*** *(Police).*

Although some R/ED personnel still had patients reporting heroin overdoses, the majority of responders believed that the FLH was specifically associated with the surge in overdose rates. R/ED personnel cited fentanyl's potency, inconsistency in heroin/fentanyl mixes, and consumers' desire to ***"chase the high"*** as drivers of increasing overdose rates.

R/ED personnel were generally familiar with fentanyl as a medication. Some had also administered fentanyl to patients for pain and had detailed knowledge about fentanyl's potency: ***"It's a very potent opiate. It's about 50 times more potent per weight, for the effect, than morphine"*** *(ED).* The potency of fentanyl was frequently discussed as a cause of overdoses: ***"Heroin isn't killing people. If it was only heroin, we wouldn't have probably an eighth of the problem we have now. People wouldn't be overdosing. But fentanyl drops you like a stone"*** *(Fire).*

Aside from the potency of fentanyl, R/ED personnel believed that the inconsistency in the FLH also contributed to rising rates of overdose in New Hampshire. Several R/ED personnel were familiar with the process by which heroin and fentanyl are mixed. They reported that this process

is ***"not a big scientific thing. It's usually done in a blender. They don't need a sterile lab for it or anything"*** *(EMS).*

Due to the lack of precision, the concentration of heroin to fentanyl in a batch can vary significantly: ***"The Police Department will test in five different spots in the finger, and get five different concentrations. You'll have people that may overdose, like you and I may use and be fine, but our friend may use from that same batch and overdose and die, because it's a higher concentration of whatever than what they were expecting"*** *(EMS).* This inconsistency within batches could thereby lead one consumer to overdose, while another might use from the same batch and have no issues.

Though consumers reported that heroin was being mixed with fentanyl, the R/ED personnel believed that some consumers were unaware of the composition of the heroin/fentanyl they consumed, stating ***"not every patient who is buying this stuff is aware that it's been cut into the product"*** *(ED).* This lack of knowledge ostensibly caused some consumers to use larger doses than necessary and overdose.

Aside from fentanyl, multiple R/ED personnel believed that overdoses occur because users try to ***"chase the first high that they ever had"*** *(EMS).* This caused consumers to use increasingly higher doses of heroin/fentanyl, in an attempt to ***"catch up to that dragon"*** *(EMS).*

"Here's something that I've heard from patients; I've heard this from their mouths. The first time they ever really got high, they said it was like being back in their mother's womb. All was right with the world. They have spent the rest of their life chasing that first-time sensation, but when they get something stronger like fentanyl or carfentanil, they have a glimmer of that intense feeling… They want the best high without killing themselves; that's what they're all about." (ED)

In the words of one emergency department physician: ***"Here's something that I've heard from patients; I've heard this from their mouths. The first time they ever really got high, they said it was like being back in their mother's womb. All was right with the world. They have spent the rest of their life chasing that first-time sensation, but when they get something stronger like fentanyl or carfentanil, they have a glimmer of that intense feeling… They want the best high without killing themselves; that's what they're all about"*** (ED).

In R/ED personnel's minds, using increasingly larger doses of opioids was especially dangerous given the combination of potent fentanyl mixed inconsistently with heroin.

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FAMILY MEMBERS AT THE SCENE OF OVERDOSES

Family members or friends are generally present at the scene when the responders arrived. These family members often found the consumer unresponsive and had placed the call to 911. ***"Very, very rarely are we seeing just that person who has overdosed, obviously, because somebody has to call"*** *(EMS).* Many family members reported being unaware that the consumer was currently using opioids and were confused about why their loved one was unresponsive.

> ***"I've seen a lot of people that are calling 911, and they don't realize what's going on. Then you get to talking with them afterwards because they're trying to figure out if this is a heroin overdose or some other type of medical. They said that their spouse or their friend has been a user, and they've quit or at least they thought they've quit… Once we asked their loved ones some questions, it dawns on them, and they realize that some of the patterns that they've been doing in the past is adding up."*** *(Police)*

These family members are often agitated or upset. This situation is particularly poignant when the 911 caller was a child: ***"If there are younger kids around, it's sad, because they, most of the time, have no idea what's going on. They just know that mommy, or daddy, or brother are sick"*** *(EMS).* In contrast, bystanders at other overdose events knew that the consumer was using opioids. Sometimes these bystanders would take time to clean up the scene and eliminate any drug-related paraphernalia before responders arrived. **"*There are sometimes it will be unusually clean around the person, like you can tell walking into it that they didn't want to admit that there was a drug problem… so they just try and get rid of all the stuff before we get there, whether it's needles, or baggies, or the drug itself, or straws"*** *(EMS).* In these cases, bystanders worried about the legal consequences of the consumer's opioid use. This fear was intensified by the police presence at overdose calls. One police officer acknowledged this issue, stating, ***"They're afraid that something big is going to happen once the police get there"*** *(Police).*

These encounters with consumers' family members showed R/ED personnel that the effects of opioid use extend beyond the consumer, and also served as a mechanism to humanize consumers, in part by making R/ED personnel think of their own families. Several responders mentioned that treating overdoses and interacting with family members of consumers caused them to worry about their own children. In addition, these encounters with non-opioid-using family members increased R/ED personnel's empathy toward consumers. In one interview an emergency department physician explained how the overdose death of a coworker's son motivated him to continue treating people who use opioids:

> ***"He was a handyman, and he and his son were in the truck one morning. He had the son in the backseat… The son had come in the morning and said, "Dad, I was up late last night with my friends. I just need to lay down in the backseat and get a little rest before we get to the job." They got to the job and he was dead and blue, and had overdosed in the truck right behind his father driving to work… In his honor, I am trying to give back. What a terrible thing… No family is ever the same with that kind of thing."*** *(ED)*

Interactions with family members often took an emotional toll on R/ED personnel, especially when R/ED personnel had to inform the family that their loved one died or when responders arrived at a scene and young children were present. Several responders vividly described scenes where young children witnessed their parent(s) overdose on opioids.

> ***"I responded to a residence where a 13-year-old girl had called in because she found both her parents unresponsive in the living room… She's making pancakes in the kitchen. She walks out into the living room to ask her mother a question, and they're both unresponsive… Both of them had overdosed on heroin… To find two in the same house like, and the circumstances in how it was found, that's probably going to stick with me for the rest of my life."*** *(EMS)*

Another firefighter described an overdose call where ***"…a nine-year-old was doing CPR on his mother being talked through the whole system by 911, which is absolutely tragic"*** *(Fire).* These situations were described as being ***"the worst"*** and contributing to emotional burnout. ***"Sometimes you can't forget. You can't unsee what you see every day"*** *(Fire).* Though many R/ED personnel sometimes had conflicted emotions toward consumers themselves and opioid use, they widely acknowledged the tragic nature of opioid use on families and struggled with witnessing this impact.

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Protocol for treating overdoses

The majority of R/ED personnel felt confident in treating overdoses and reported a clear focus on their job over judgment when called to an overdose event. Overwhelmingly, R/ED personnel reported high confidence in their ability to treat overdoses:

"We're very well trained. I think it's very smooth for us." (Police)

"We're extremely good at managing overdoses." (Fire)

"From the medical standpoint, it's a fairly simple call to manage." (Fire)

"Procedurally, it's really simple." (Fire)

"It's simplicity itself." (ED)

One firefighter explained, ***"I'm not here to judge people. I'm just here to do my job. People have different types of problems and I think the opioid users… it's just another disease. It's no different than alcoholism or smokers or anything like that"*** *(Fire).* When called to treat a person who overdosed, responders felt a responsibility to ***"prevent death in every way possible"*** *(EMS)* and ***"treat it like any other"*** *(Fire)* medical issue.

R/ED personnel provided in-depth descriptions of the general protocol used to respond to overdose calls. Upon arriving, responders first assessed the scene to gather information. ***"As we walk in, we're looking for the paraphernalia. Are the tourniquets still on their arm? Is there other evidence nearby? Spoons, lighters, syringes, that kind of thing. I think beyond that and their general living arrangement, and of course our safety"*** *(Fire).* Because the 911 caller was not always aware that the consumer overdosed on opioids, R/ED personnel used those scene cues to determine whether an opioid overdose seemed probable.

"If it's a pretty generic heroin, like pretty low strength, we'll be able to wake them up with a single dose, which is two milligrams. When you start to get above three doses, so when you're looking at like six, eight, ten milligrams, you're almost always going to be dealing with fentanyl. In the state, as paramedics, we can give a maximum of ten milligrams. There are times when we've given all ten and not been able to wake somebody up. Then you're looking at… You could be looking at carfentanil. You could be looking at W18." (EMS)

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Once responders established that the event was an opioid overdose, they could then use Narcan and cardiopulmonary resuscitation (CPR) to stabilize the patient. ***"Our protocol specifically is obviously support their respiratory effort, support their cardiac output, get the Narcan onboard as fast as you can… and then bringing them out using that, kind of that cascade of things"*** *(EMS).* Because of fentanyl's strong respiratory depressant effects (Suzuki & El-Haddad, 2017), the following quotes show that responders focused on keeping consumers breathing while administering Narcan:

"Usually it's just depressed respiratory effort…" (EMS)

"We try to keep them breathing." (EMS)

"We make sure their airway is open. We make sure that they're breathing, whether on their own or with our help that they get some oxygen…" (Fire)

"You're breathing for them. You're assessing whether they have vital signs… CPR is started. Rescue breathing is started. Narcan's started. Then wait." (Fire)

Responders needed to know whether a patient overdosed on opioids to effectively treat them with Narcan, but knowing whether the patient used heroin, fentanyl, or opioid analgesics was not critical. ***"I bunch them in my brain as opiate overdoses. How they got there, or to what the specific agent was, doesn't matter"*** *(ED).* Many responders were cognizant that consumers using fentanyl or other fentanyl analogues may require additional doses of Narcan.

> ***"We don't treat anybody differently, whether you're a drug addict or whether you're a granny who needs help up off the floor. A patient is a patient, and we're going to be with you for fifteen to twenty minutes. We're going to be as nice and as kind to you as we possibly can, because we don't want to dissuade you from calling back when there's another problem." (EMS)***

Currently, responders estimated that it is standard to administer more than two milligrams of Narcan. ***"Early 2015 is when we started to see a consistency with moving from just over two milligrams to revive somebody to three and a half milligrams. We've been at three and a half milligrams on average all of 2016"*** *(EMS).* Several responders stated that this increase in Narcan dose paralleled when ***"fentanyl started to be mixed in"*** *(EMS)* with heroin batches in New Hampshire.

After reviving patients with Narcan, responders must evaluate their vitals and mental health to determine a treatment plan. As some consumers became aggressive after receiving Narcan, police

officers generally remain at the scene to help subdue consumers. ***"We back away right off and let them get in there if the guy becomes combative or the girl becomes combative"*** *(Police).* A subset of responders hypothesized that this aggressive behavior was sometimes related to polydrug use. ***"Unfortunately, what you see is the heroin overdose, then when you reverse the heroin you get the effects of the other co-ingestant. You can go from having a very sedated overdose patient to having a very agitated, you know, high-on-methamphetamines or high-on-cocaine patient"*** *(ED).* One responder also mentioned witnessing cardiac events because of co-ingestion of heroin and other substances.

During this time, paramedics often try to create an alliance with the patient and any bystanders by seeking to make their protocols ***"scene and patient focused"*** *(Fire).* Creating trust between responders and consumers also serves to improve communication, as responders must explain to patients that Narcan wears off and re-overdose can occur.

Generally, EMS and firefighters transport patients to the ED for observation after reviving them. Many consumers resist transportation to the ED. ***"Some of these folks, we wake them up with Narcan. The law enforcement is generally there. They don't want to go to the hospital. They understand what that means, and they absolutely are refusing"*** *(Fire).* Aside from fears of legal consequences, responders noticed that consumers feared experiencing withdrawal while under observation in the ED. Unless a patient is ***"really not oriented to the day or time"*** *(EMS)* the patient has ***"the legal right to refuse"*** *(Fire)* additional treatment.

ED personnel first see consumers when they arrive in the ED. The majority of patients are transported by EMS and firefighters after being treated at the scene of the overdose. These patients have usually received Narcan already and are more likely to be medically stable. Other patients are dropped off by bystanders and require immediate resuscitation.

Once stabilized, patients generally want to leave the ED against medical advice. ***"Basically, for the most part, when these patients receive Narcan, their next goal is to get out to get more drugs is my impression"*** *(ED).* The ED interviewees recognized that fear of withdrawal contributed to this desire to leave immediately. Although ED staff believed that many patients being treated for opioid overdoses have other medical conditions, these are often not discussed because of patients' desire to leave. ***"Well, I suspect that they have multiple other conditions, but that we're aware of … They don't 'fess up to it. I think they're smart enough to know if they say the right or the wrong thing… that could lead to them being stuck there, feeling the symptoms of withdrawal"*** *(ED).*

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Though the police, firefighters, and EMS providers are a unified force in responding to overdose events, there is variable interagency communication aside from responding to calls. Some police and fire departments report extensive information sharing with other agencies when a spate of overdoses occur in their region. Police departments also send any confiscated drugs to the state laboratory for testing. These lab results are infrequently shared with other agencies outside the police department. ***"Never, never [had lab results shared]. Other than some occasional chance encounters with maybe the investigating cop, they're never shared with us on any kind of a predictable basis"*** *(Fire).* Often they are not even shared with the police officers who attended the overdose event. ***"The lab reports don't come back to the officers generally. They come back to just prosecution. I would say 95% of the time, we don't know what the lab results are unless it's a blood test for DWI or something like that"*** *(Police).* These lab results may be useful to responders because they provide ***"an idea of where things are being supplied from, the quality and the quantity of what is coming in"*** *(EMS).* Because Narcan doses may vary by opioid type, data from recent laboratory testing could inform the treatment of opioid overdoses in the field.

"There are two separate processes. It varies as to whether they came by private vehicle or by EMS… If they come in from a qualified pre-hospital provider… they will have Narcan… When they arrive in the emergency department, we will assess them, obviously, from a medical standpoint, and then, depending on if there's any acute medical conditions, obviously those take priority in some instances… If they come in by private vehicle, and they're sort of dropped off… those are a little more scary… because they tend to be more somnolent, and those are the ones who look like if they hadn't gotten dropped off a few minutes sooner, they wouldn't have made it." (ED)

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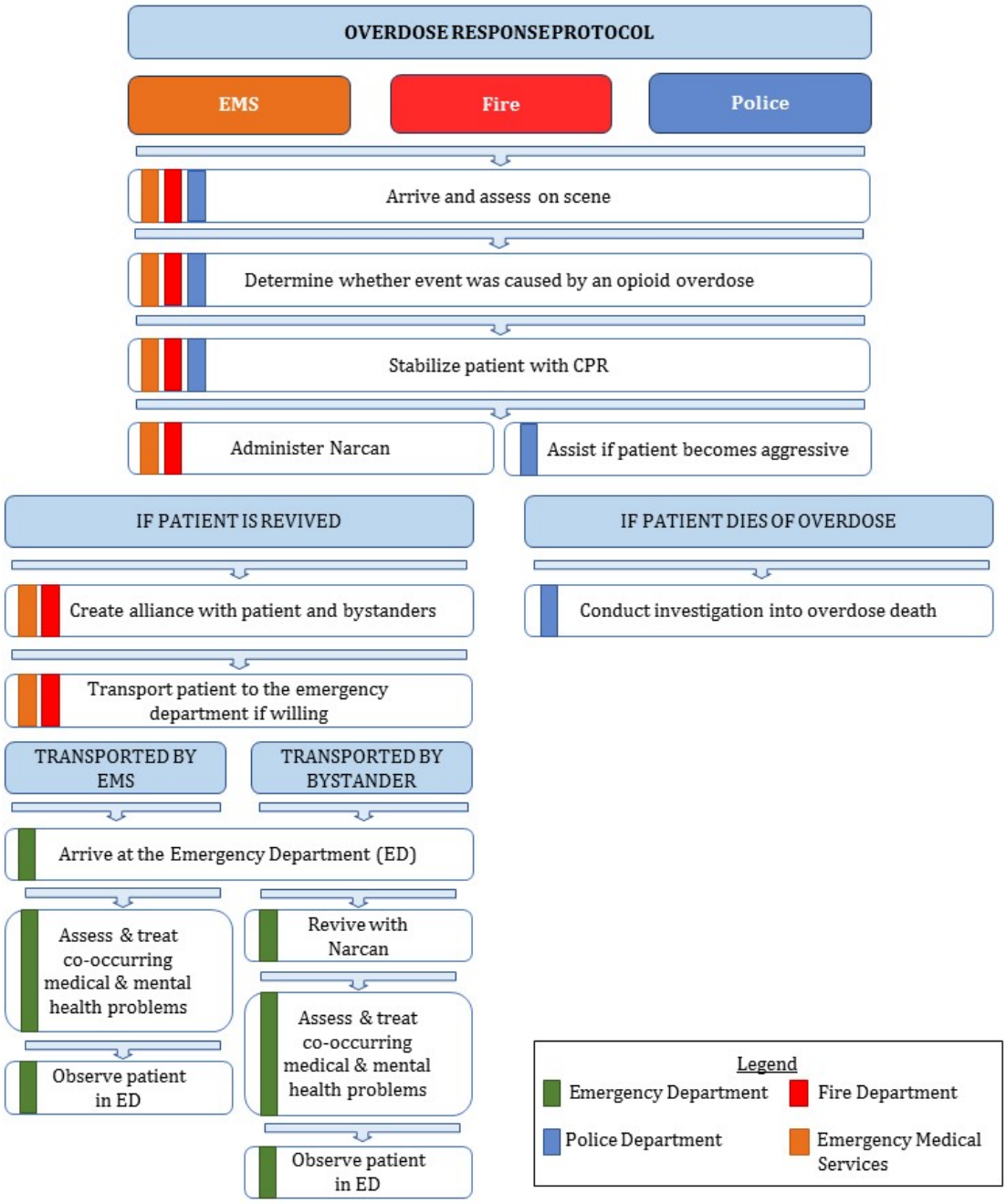

Figure 9. Responder Protocol for Treating Overdose Calls

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Conflict between police goal of tracking down drugs and EMS goal of saving lives

One emerging theme was conflict between the police's primary goal of enforcing the laws and EMS' primary goal of saving patients' lives. Several police officers described their primary role as investigating drugs and getting them off the street. ***"As law enforcement, it's kind of, not a double-edged sword, but our main job has always been to enforce the law… Make people accountable for their actions"*** *(Police).* Because bystanders are not always forthcoming about the reason for the 911 call, police officers on overdose calls are often actively ***"looking to see if we can find a rig or a needle, tourniquets, anything like that to try to put this piece together"*** *(Police).* Although the Good Samaritan law prevents New Hampshire police officers from prosecuting bystanders at an overdose event, the police can conduct full investigations after overdose deaths. This process was described by one police officer: ***"Witnesses are located and identified. We collect any phones there for phone dumps… any drugs, and then we do a full investigation, take full statements from everybody, we do a victimology and backtrack the victim for at least the past several days… try to find out where they got this"*** *(Police).*

In juxtaposition to the police's role, EMS providers seek to ***"really focus on the caregiver role"*** *(Fire).* These responders described making a concerted effort to reduce their involvement in any investigation and to keep their ***"main focus… directly on the patient"*** *(EMS).* Providing compassionate and patient-centered medical care was important to EMS responders. One EMS responder explained, ***"I think everybody in EMS, the reason they get into EMS, besides the lights and sirens… I think you really have a desire to make a difference out there… When people are down and out and need help, you want to be the one that helps them"*** *(EMS).*

In some circumstances, the roles of the police and EMS clashed. Several EMS responders worried that the police presence as enforcers of the law hindered their ability to treat and transport patients for additional services.

> ***"The problem with law enforcement can never shut off being cops… We go to these things, the cops want to know, 'Where's your dope?' Every time, first question. 'You can't arrest me, but where's your dope? If it's hiding, I'm going to find it,' that kind of stuff. That, when you're dealing with a medical thing, is a very uncomfortable interaction, and it doesn't help the situation. It doesn't help, 'Okay, you can trust me. We're going to get you to treatment,' after this guy was just drilling you about where your dope is. That continues to be a part of the problem." (Fire)***

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Although EMS responders believed that tracking down dealers and reducing the flow of heroin and fentanyl is an important task, several expressed concerns that this discouraged patients from obtaining additional help for their opioid use.

Impact on R/ED personnel

In conjunction with the increased number of overdose calls, R/ED personnel spent more time treating and handling the consequences of opioid use disorders. For some, this contributed to the development of increased compassion and empathy toward opioid users. ***"I think it all comes down to I was very judgmental at first, but I think now I just feel sorry for what they actually have to go through"*** *(EMS).* This group of R/ED personnel described how their views on opioid use evolved through gaining first-hand experience working with this population and viewing their ***"struggle."***

Conversely, other R/ED personnel reported that frequently treating opioid overdoses led to increased cynicism toward opioid use and the feeling of ***"becoming immune to it"*** or ***"more robotic"*** during encounters with consumers. In general, many responders felt conflicted toward consumers. ***"It's very difficult when you see the same patients over and over again that generally tend to be pretty rude, unhappy, and not wanting to be there, and for people to maintain their positive attitude towards them gets tough after a time"*** *(ED).*

R/ED personnel often saw consumers during their worst moments. Consumers were sometimes aggressive or rude to R/ED personnel after receiving treatment for overdoses. Police officers also encountered consumers both at overdose events and during other calls, witnessing *"absolutely appalling behavior."* One police officer explained: ***"I'm conflicted. I see these people who are using. I see them throwing away their lives. They're committing crimes to chase the dragon… to get the next fix. It makes a lot of work for you. I do feel sorry for addicts. I think it's a bad hand that they were dealt, but on the other hand, I know that they're committing so much crime in the area"*** *(Police).*

Although this group of R/ED personnel wanted to have compassion toward opioid users, many could not surmount their negative encounters with consumers. Attitudes toward consumers were also sometimes moderated by consumers' path to opioid use. Though consumers described an intersection of risks that led to their opioid use, some responders' attitudes toward consumers varied by whether they initiated opioids recreationally or through a prescription. ***"I have learned of a lot of people transitioning from opioid pills from pain injuries and things like that, that it can happen like that. I personally have no respect for anybody that would just decide to do this as a recreational drug and then becomes addicted; you're an idiot"*** *(Police).* In some cases, placing opioid use in a disease framework appeared to help responders differentiate

between consumers' behaviors and their actions and increase empathy. ***"It's an illness that hacks your brain. I explain it to patients that, 'This is a brain hack. You've been hacking your brain, and you've hurt your software'"*** *(ED)*.

SUMMARY

This sample of consumers and R/ED personnel had extensive experience with overdoses. The majority of consumers had experienced an overdose, and the R/ED staff had all treated numerous overdoses. Consumers and R/ED personnel unanimously agree that fentanyl is the primary cause of the increased rate of overdoses in New Hampshire. Both groups noted that fentanyl's potency and inconsistency in FLHs cause consumers to overdose, particularly those lacking experience with the fentanyl high. Consumers also specifically endorsed seeking out batches of drugs that caused an overdose, noting that these batches were clearly strong.

R/ED personnel also discussed the massive breadth and depth of the opioid problem in New Hampshire. In their experience, overdoses are now occurring across all demographics in New Hampshire and widely impact the family and friends of consumers. Responders had high confidence in treating overdoses, though they noted that the primary goals of law enforcement officers and firefighters/EMS providers sometimes diverged at the scene of overdose events.

INTERVIEW FINDINGS BY CATEGORY: EXPERIENCES WITH OVERDOSES

Other consequences of the opioid use epidemic in New Hampshire

Aside from the increasing rate of overdoses and overdose deaths in New Hampshire, R/ED personnel explained that the opioid epidemic also contributed to local cases of human trafficking and prostitution, the spread of disease from intravenous (IV) drug use, and increased public awareness of opioid use. Three responders had encountered potential cases of human trafficking or prostitution. ***"You know that there's human trafficking going on. You can see it up the street"*** *(Fire).* Responders sometimes encountered these situations when treating overdoses, and suspected these situations were more prevalent than previously expected. ***"[Human trafficking happens] a lot more than I think we even realize. A lot more than I realize. It doesn't take much to actually come under the qualifications of human trafficking, especially when it comes to drugs. It may be somebody prostituting out their friend, prostituting out their sister for an exchange for drugs"*** *(EMS).*

RE/D personnel also frequently commented on increased rates of infections and diseases spread from IV drug use. Many patients entering the ED for opioid overdoses have localized infections from IV use that require treatment, ***"Very often, I'd say the most common complication is localized infection from the injection site that we see, aside from the effects of the narcotics themselves"*** *(ED).* In addition, ED responders suspect that rates of Hepatitis C are increasing in New Hampshire, due to sharing dirty needles. As one ED provider described, ***"I think we probably have a Hepatitis C problem in this state that we're not really cognizant of, because we don't report Hepatitis C. It's not a reportable infectious disease yet, and yet, every other person who uses drugs has Hepatitis C, or it feels that way"*** *(ED).* Rates of infective endocarditis and other valve infections may also be on the rise, and three responders had seen cases of IV drug use-related endocarditis in young patients. The R/ED personnel explained that these additional medical problems complicated the treatment of patients with opioid use disorders. ***"I think it has presented a challenging set of patients because it's not just the overdose it's the other things that come with using IV drugs. In many ways the overdose are kind of simple. They come in, you give them Narcan, they get better. It's the abscesses, it's the endocarditis, it's the bacteremia"*** *(ED).*

Finally, R/ED personnel believed that the opioid epidemic contributed to increased public awareness of opioid use and overdose. Multiple responders had received calls from bystanders who witnessed someone in a vehicle and immediately assumed the person had overdosed. One police officer described a call where a bystander assumed a nurse had overdosed.

> ***"Just last night I was working and we got a report of a female that was passed out in her car. Back a couple of years ago, it would have been what makes you think she's passed out… Now it's assumed on our side and the public side that it's an overdose. Nine times out of 10, it is an overdose but last night she was actually waiting for her husband to get out of work and she just closed her eyes. She was a professional. She was in scrubs… The ambulance came and she thought it was a big production for something so minor. I think the public is aware and they're pretty vigilant."*** *(Police)*

R/ED personnel had mixed emotions about whether this increased awareness was positive: ***"I mean, it's sad that society is swung that way. You assume that everybody is overdosing when they're sitting in a car. I think that's bad obviously, but I think it's good because people's lives are being saved because people are calling and stepping up"*** *(Police).*