Methamphetamine (MA) Injection in Cecil County, MD: A Preliminary Assessment

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Background

In 2021, over 2.5 million U.S. adults over the age of 18 reported using methamphetamine (MA) by any route within the past year, according to the National Survey on Drug Use and Health.[1] Historically, MA use has been prevalent along the West Coast and in the Midwestern U.S..[2,3] In recent years, however, MA use and associated overdoses have increased nationwide, including on the East Coast.[4,5] Recent data also suggest increasing MA and opioid co-use among people who inject drugs (PWID) in the U.S. [6] Between 2015 and 2019, MA-associated overdose deaths more than doubled in Maryland and increased by more than five times in neighboring Pennsylvania.[5] Ethnographic data collected across Maryland in 2019 also highlighted increasing MA use, particularly across Maryland's Upper Eastern Shore region and in Western Maryland, and a need for dedicated attention to MA use and MA and opioid co-use.[7] MA use can be associated with a variety of physical and mental health concerns, but public awareness and harm reduction resources targeted to MA users are extremely limited across the country.[8,9,10]

Voices of Hope, Inc. is a 501(c)3 organization founded and staffed by people in recovery, family members, and allies who support recovery throughout Maryland, but primarily in Cecil and Harford Counties. In 2022, Voices of Hope (VOH) staff expressed concern about increasing MA use in the region. They estimated that close to 80% of the participants in the VOH syringe service program (SSP) were injecting MA, often as a replacement for or in conjunction with opioids (e.g., heroin and/or fentanyl). The staff were extremely concerned about the patterns of chaotic injection, psychoses, and severe injection-related wounds among participants, which they attributed in part to increased exposure to the adulterant xylazine – now known to have a substantial presence in the local region.[11]

With funding from the Bloomberg American Health Initiative intended to strengthen partnerships between academic researchers and community-based organizations, the current project was designed to inform program development and capacity building for VOH staff and others involved in MA frontline response. This report summarizes results from qualitative interviews conducted among MA users in Cecil County to inform public health and policy action steps, as part of a larger effort to describe the scope of MA injection, related health risks, and intervention needs among current SSP participants.

About This Study

The goal of this project was to assess the needs of people who inject MA in Cecil County, Maryland, among VOH SSP participants. We conducted in-depth qualitative interviews with SSP clients using MA to learn about their perceptions of local MA availability and use, injection practices and strategies for care, health and social services utilization, and opportunities for resource development and intervention. The study protocol was developed collaboratively between study team members at the Johns Hopkins Bloomberg School of Public Health (BSPH) and VOH, and then reviewed and approved by the BSPH Institutional Review Board. It is our hope that the findings from this report will inform capacity-building work, local resource development, and partnerships to address the health needs of PWID using MA in the Mid-Atlantic Region.

Study Sample

Cecil County Demographics

Cecil County has a total population of 104,942 people, making it the 17th smallest county in Maryland.[12] The median age is 41.3 years, and 16.7% of the population is over the age of 65.[13] Census data show that 86.8% of the population identifies as white; 8.4% identify as black, 1.5% identify as Asian, 0.4% identify

as American Indian/Alaska Native and 0.1% identify as Native Hawaiian/Pacific Islander. Female persons constitute 50.1% of the population.[12] The local homeownership rate is 78.1% and the median household income is $75,692. A minority of the population is without health coverage (5.8%) and is unemployed (4.1%).[13]

SSP Participant Characteristics

SSP participant data from May 2021 - December 2022 show that the majority of SSP participants were 26-55 years of age (64.3%) and white (85.7%). Approximately half of all participants identified as female (49.6%) and reported being currently uninsured (46.6%), and nearly one-third reported that they were currently experiencing homelessness (32.4%).

Study Participant Characteristics

Interviews were conducted with 10 VOH SSP participants who had recently injected MA. Study participants ranged in age from their early twenties through their early fifties, and 6 of 10 identified as male. Information on participant race/ethnicity was not collected. While information on housing and employment status was not directly asked, several participants shared during their interviews that they were unemployed and/or unhoused; among those reporting being employed, landscaping and construction were the most common types of jobs.

Methods

In collaboration with VOH staff, the study team recruited SSP participants using purposive sampling by word of mouth. Purposive sampling is a sampling technique used in qualitative research to identify individuals or groups who are knowledgeable or experienced with the event of interest (e.g. MA injection use) and may be interested in sharing their experiences.[14]

Recruitment, eligibility screening, oral consent procedures, and interviews were all conducted on-site, over the span of three days, by project staff who had completed training in study procedures, human subject research ethics, privacy and confidentiality, and trauma-informed engagement with PWID. All study procedures were conducted in private and secure office spaces at VOH. Each project staff member worked with one participant at a time and made sure that the participant felt secure and comfortable in the space prior to initiating the interview.

Participants were eligible if they were 18 years or older, currently residing in Cecil County, and had injected MA in the last 3 months. Eligible participants who consented to participate in the study completed a one-time, audio-recorded, one-on-one interview lasting no more than 60 minutes and received $25 in cash to compensate them for their time.

Interviews were semi-structured to encourage participant engagement. The interview guide elicited participants' perceptions of life in Cecil County and local MA use, current injection use practices, initial MA use, geographic mobility in relation to drug use, perceived barriers and trusted resources for PWUD, strategies to manage health risks associated with MA use, perceived overall health, overdose experiences, and ideas for social and health services targeted to MA users. At the end of each interview, participants were provided with the cash incentive and asked to verify the amount before leaving the interview space.

The audio recording for each interview was stored with the participant's study identifier only, in an encrypted, cloud-based folder on JHSPH OneDrive to minimize the possibility of a data breach associated with project staff storing study data on their computers. Only authorized study personnel had access to this folder. If the participant had consented to be contacted for future research during oral

consent procedures, the participant's first name, phone number, and email were collected and stored separately from the interview recording and not linked to that participant's study identifier.

Audio recordings were transcribed by a third-party service that provides HIPAA-compliant academic research interview transcription services. Transcripts were stored in a fashion similar to the recordings, with the participant's study identifier only, in an encrypted, cloud-based folder on JHSPH OneDrive only accessible by authorized study personnel. After transcription was complete, project staff verified transcription accuracy.

Interview transcripts were utilized by the study team to perform an inductive/deductive hybrid thematic analysis, which allowed for a flexible and multi-faceted exploration of participant perspectives.[15] Analysis was guided by a thematic framework derived a priori from the interview guide (the deductive aspect), and by emergent themes of discussion within interviews (the inductive aspect).

Results

Perceptions of life in Cecil County

Participants expressed varied views of Cecil County, focusing largely on their social interactions and relationships with fellow residents. When prompted to share what they liked about living in the County, a few participants reported having met people that they liked and trusted. One participant, who was originally from a neighboring state, also shared a positive experience utilizing social services.

- "I met some good people. Also, there are a lot of resources I think available here from me being out of state. I was still able-- even though I never got the hotel voucher that I was going to try to get, but [organizations] were still willing to work with me even from being out of state." –Community Participant (CO) #6

- "I come here for the people that I know. It has nice people." –CO #7

When prompted to share about any aspects of County life that they may wish to change, several participants noted a high prevalence of substance use, policing, and mistrust between individuals, notably between PWUD and people experiencing homelessness. Some of these participants stated that they continued to live in Cecil County because they had resided in the County for most of their lives themselves or had family members living there.

- "I've grown up 'round here my whole life…the drugs never used to be this bad… probably the early 2000s is when it started getting really bad. I mean, robberies, shootings, it's crazy. High speed chases with the cops, cops shooting people. It's just so bad… I'm only still here because my kids are here." –CO #3

- "I wish that I could move away from here, because for me it's just drug use. Drug friends. I got to get away from here…[But] it's home to me. Like, if I travel or anything, I do get homesick...my family lives here. It's just a familiar place, so I'm comfortable." –CO #4

- "Cecil County is a very small area. So everybody knows each other...that can be a good thing for some people. It also can be a bad thing for some people. Me, I'm the type of person, I keep to myself only because it's such a small country-- well, a small county, I should say, really. It's more

country-like. But it's okay to live here. I mean, it is kind of bad over here. So, when I was younger it was much better… Cecil County can be a really good place to live at if we all just work together and, you know, get ourselves right... I would change the way everybody tries to get in everybody's business. Like if people would just learn to mind their Ps and Qs. The only time you shouldn't mind your Ps and Qs here,[is] if your neighbor needs help, you know, carrying their groceries or something... Helping an old lady across the street. I wish we could have a county like that... and start trusting each other more... and not be so paranoid... thinking that everybody's out to get everybody." –CO #8

- "Especially drug addicts or...the homeless scene...they'll pretty much be out for self and I was always taught… if you're in a situation, you stick together and you get through it together, but... The people here, they'll do whatever they can to get on top and it's sad." –CO #10

Drug use patterns and trajectories

When asked to describe their current drug use in general and how it may have changed over time, many participants reported initiating drug use during late adolescence/early adulthood and using continuously since then, or mostly continuously punctuated by short periods of non-use. Participants typically engage in polysubstance use (i.e. they use two or more drugs at the same time or one after the other).[16] Many have either previously used or currently use alcohol, marijuana, cocaine and opioids (prescribed and non-prescribed including heroin and fentanyl), in conjunction with MA. Routes of drug use included ingestion, snorting and injection.

- "I started on pills [prescribed opioids], the doctor gave me pills, and then I started sniffing dope and now I'm shooting dope… I started on pills at 27… I started shooting [heroin/fentanyl] when I was like 35, so it's been about eight years." –CO #3

- "I actually didn't start using drugs until I was 27... I guess it's been about... thirteen years… Originally, I was on heroin so that's [what] I started doing when I was 27... I do have a medical marijuana card, so I do smoke marijuana. But other than that, that's just what I did... I was on the heroin and then I had six years clean and relapsed... when I relapsed it was... fentanyl that was out... I was stuck for maybe like close to four years in that relapse, and I finally got off of it. And... well, I guess I just substituted it for the meth now... because... it's total opposite of my drug of choice. –CO #6

- "I started using around age 18, so I'm 25 now... At first I was snorting drugs. I was snorting only crystal and...some crack cocaine here and there. But after I hit about 21 is when the needle started." –CO #8

- "I've been battling addiction… for a long time… I've been addicted to just about all the street drugs there are. Alcohol, I drank a gallon-plus-- a gallon or two, sometimes, a day for 15 years... And I'm 36… [In] middle school… I would have people bringing their parents'… prescription pills… when I was 16, it was… the first time that I used a needle and heroin and cocaine. And… I fell in love with it... The only clean time I have [had] is 2 years." –CO #9

- "Weed was the first drug I ever tried. I was 18 and I'm 37 now... I was about 21 when I... got into… taking... opiates like Percocets, Vicodin...when I started to like them and become addicted... it would be on the stronger [side], like, Oxys or Roxys. And then I discovered heroin,

same feeling, but cheaper… Over the course of the years I did get clean off of heroin but I ended up relapsing a couple of years ago. –CO #10

Initial methamphetamine (MA) use

Many participants reported trying MA for the first time either by snorting or injecting in a social setting such as a party or a friend's house. Some participants shared that the drug was introduced to them by an older relative or acquaintance, such as a friend's parent. The reported range of time since MA initiation was 2-8 years ago. Most participants noted that they felt a dramatic increase in energy levels and even experienced insomnia. Others also reported feeling unwell and experiencing a loss of appetite and dehydration after initial use.

- "The first time I ever used it [MA] I thought it would be like cocaine like [you] do a big shot and it hits you all at once... with meth... I did it and... it came on nice and slow, I slowly got energy and started moving around wired and then I was up for a couple of days and I was like, "Wow man," I kind of liked that, it gave me energy. That was the first time I ever used it... Probably about two years ago." –CO #2

- "I was at friend's house, and I had drug habit at the time, they told me to try it [MA] and then I injected it, it burned the whole way, I mean, oh, my God, it was horrible, and then I never used it again after that for a long time because I was sick right after I did it… That was probably was about 10 years ago, so 7 or 8 years I've been on it." –CO #3

- "Somebody's uncle asked me if I wanted to do some [MA] and... I don't know why I said yes…They put a shot glass of tea and just put a chunk in there... first time I did it, I was up for, like, three days. And couldn't sleep, things were spotless. I was on top of things, but… I didn't like not being able to rest. And your body hurts... You're not eating properly... You're not hydrating yourself." –CO #4

- "At age 20 was my first time I've actually done crystal meth… Oddly enough, my sister and my buddy, who-- it was his 18th birthday… What a way to celebrate your coming of age… They basically put it to me like a thousand times stronger Adderall XR 20 [mg]… [It felt] euphoric." – CO #5

- "I had my girlfriend living with me at the time at my parents' house. It was, like, you know, the hang out spot... A friend of mine would come over and his dad was a truck driver and… he always had it. So whenever he would come by… he would cut a line out and we would… do a line… It's like getting ready for the party." –CO #9

- "In 2017 or '18 I started sniffing it [MA] regularly. At first I didn't get high off of it… one day… I did another line and it got me really high and I just fell in love with the feeling… I was with a friend of mine." –CO #10

MA injection

When asked to describe their current injection use practices, participants typically reported injecting both heroin/fentanyl and MA most days a week or daily. Some injected heroin/fentanyl and MA

simultaneously. A few participants noted that they preferred to inject MA in their neck, breasts, or fingers.

- "I don't like to eat my dope up, so I just use it [MA] for energy… I just use a little bit…maybe a 1/16th [of an ounce] a week, it's like 1.75 grams…I usually do it [inject MA] on my boobs… my boyfriend used to on my neck but he can't do my neck anymore, so I've got my boobs." –CO #3

- "I use it [MA]... two, maybe five times a day...I do small amounts. I like to mix it together with the dope… Preferred place, my neck. And it's been my fingers…since December." –CO #4

- "I know that a lot of people that use meth also use, well, at least what was heroin, and they call it a speedball when they do it at the same exact time. I've seen people mix shots that have fentanyl or dope with meth in it." –CO #5

- "Right now, I currently use methamphetamines and I use Fentanyl…The crystal I shoot up…most of the time, it can be daily, yes… Fentanyl, I just use it maybe every 3 or 4 days." –CO #8

Perceptions of/knowledge about MA

MA, as an "upper", was regarded positively among nearly all 10 participants for its stimulating effects. Participants noted experiencing an increase in alertness, energy, focus, productivity and self-confidence while using MA.

- "I think it maybe gives me some sort of confidence, self-confidence. I feel like I can function better, focus better with it." –CO #6

- "It makes me a little more awake, more energized and stuff like that. So you know, shooting it up, you get like a nice rushy feeling and your body gets nice and warm and it's-- I can't lie, it feels good… I even heard some people who actually have had orgasms off of it… It helps me get stuff done… if I need a lot of stuff done around the house or even if I got to go out and about… It gives me courage that I need… It boosts me up. It gives me… that motivation to want to get up and go do something." –CO #8

- "Methamphetamine... gives you... a sense of good being, wellbeing... My girlfriend, she has a session... coming up and so we're trying to get the... place cleaned up. We want to take a load to the dump from the backyard and... get all this stuff done that we've been... procrastinating or putting off... I don't get anything done if I don't have it [MA]." –CO #9

- I've been prescribed things for my ADHD like Adderall and I know the generic form of Adderall on the bottle it would say "amphetamine salts." So I do know that they're kind of similar…. when I am on meth, I can concentrate, focus… same as I felt when I was on Adderall… So, I mean, yeah, it is a controlled substance but you know what? For me, I feel like it does more benefits than bad… I just like the fact that it gives me physical energy, so… I can get things accomplished that I normally wouldn't do without it." –CO #10

A few participants also believed MA could result in overheating and a fatal increase in heart rate.

- “Meth jumpstarts your heart, so does coke, it's an upper… if you're ODing on meth and they don't know, they hit you with Narcan that's twice more adrenaline... And you’re done.” –CO #2

- “They said that you can overheat and-- I don't know what it [MA] does to you, but I guess it could kill you, explode your heart.” –CO #4

Local availability of MA

MA was described as easily available in Cecil County. Additionally, some participants noted procuring MA from Philadelphia and Delaware. Participants obtained MA from people they knew in these areas. One participant also noted that both heroin/fentanyl and MA were more affordably priced in Philadelphia.

- "It's right up the street... it's bad. It's an epidemic here." –CO #1

- “Just about everybody around here is on meth… I mean you can get an 8-ball for 40 bucks, that's 3.5 grams. And it's just about on every street corner you turn to. If you know somebody, you can get it.” –CO #2

- “You can't afford it [heroin/fentanyl] down here… It's $160.00 for 16 bags, I could go to Philly and get it for $75.00, so why wouldn't I pay the $20.00 in gas and go there?... The meth is cheaper up there too…and sometimes it is better quality.” –CO #3

- “I have certain people that I go to that go to Philly… and I get it through them. But just pretty much here and Philly.” –CO #4

- “It's always right down the street or in the trash bag on the next building or whatever. It's something that's always right there now. You can basically just always grab something whenever, depending on who you are.” –CO #7

- “The only time I traveled to get good stuff was… to Harford County… And then sometimes I go towards Delaware.” –CO #8

Characterizations of MA users

MA use was described as being prevalent across multiple age groups, but particularly among adolescents/young adults (ages 17-25) and middle-aged adults (ages 40-60). In terms of race, two participants described users as being typically white; one participant noted that MA use appeared to have become more prevalent among black and Latinx folks within the last year.

- “There’s a lot of people…in their 20s. And then older, like in their late 40s, 50s, 60s. I know a lot of older people who do meth.” –CO #4

- “There's like a lot of White people [using MA]… from, I'd say, 17 to 60 [years old].” –CO #2

- “Up until like a year ago it was mainly lower-class, white, middle-aged men and women…but now it seems to be branching out… you could see a [group] of Hispanic people…you could see a group of African Americans doing it.” –CO #5

Additional groupings of people described to be using MA included people with ADHD, people with intense work and family obligations, and members of the LGBTQ+ community.

- “I think a lot of people use it to self-medicate for like ADD and ADHD… that don't go to the doctor… I knew a lot people who were using it for work, especially if they work a lot, like I have another friend who works two jobs and she's got two small kids, so she uses it.” –CO #3

- “It's very well known in the LGBTQ community, there's a lot of people… that use methamphetamine to party on, because it's a very good sex drug.” –CO #8

Access to and utilization of local health and social services

When asked to describe local health and social services specifically for people who use MA, participants noted that there were none. As a follow-up, when participants were asked to describe which services were available to and the most trusted by people who use drugs (PWUD) in general, nearly everyone named Voices of Hope as a go-to place for peer support and access to safer drug use supplies, over other local resources.

- "This [Voices of Hope] is...the only place I really know that will help people, help addicts. I mean we got clinics all around us, we got Serenity [local Substance Use Disorder treatment center] right here, we got ATS [local Methadone clinic] right up the street here. But this place [VOH]… if you want to go into a rehab, they'll help you get a bed within a day or two... And anyplace else, you go down there to Serenity and say, "Look, I need a rehab." It might take them three months to get you into a bed. This place [VOH] they... even transport you there... They'll help you get your teeth fixed, they'll help you with housing, all kinds of sh*t. Voices of Hope is really good people, this is ... the best place and it's probably... one of the only places I know that help you in Cecil County." –CO #2

- “At Voices of Hope… nine times out of 10 the people… that work hand-in-hand with you have been where you were at, at some point in their lives, so you're fighting the fight together.” –CO #5

- “Where you're at right now [Voices of Hope]… is the only... real resource that I know about right here... I mean, there's the Health Department and stuff like that... But... this isn't the Health Department... This [has] its own real identity of fricking of [being] for drug addicts... the people here...really want to see... people doing good.” –CO #9

Multiple participants also highlighted Mary Randall, a shelter for people experiencing homelessness, and the Cecil County Health Department, as resources they trusted and utilized. Other organizations mentioned included Serenity and ATS (local substance use disorder treatment centers); the Help Center (a local food pantry), and the Perry Foundation, which does veteran suicide prevention work.

- “You can go there [Mary Randall] every day and get showers, wash clothes, eat breakfast and lunch and all that kind of stuff. Plus you can also, if you're homeless you get your birth certificate for free, you get your ID for $1.00 here in Cecil County.” –CO #3

- “I'd say I trust the Health Department and Social Services mostly because they're the ones who can provide... the big major services like... housing... job assistance and food and whatnot... You

can always get food assistance also at the Help Center… Mary Randall Center, you can go there and eat breakfast at least... You got the Perry Foundation... [that] also does bag lunches... for right now because they're waiting to find a [new] place... they had a place where everybody comes in to eat dinner." –CO #8

Participants generally expressed distrust of local hospitals and law enforcement, especially in instances of overdose.

- "Around here, if you go into the hospitals for an overdose or… you really hurt yourself, they won't give you nothing for the pain because you're considered an addict, you're coming in there just to get high… they pretty much red flag you and the most they're going to give you is Tylenol." –CO #2

- "I really do everything I can to not call the police. I keep Narcan… "It's just another junkie overdose", that's how the cops' attitude is around here that's why I don't call them if I don't have to." –CO #3

When probed about reasons for distrust, participants reported generally negative experiences with law enforcement specifically. These participants described being stopped, arrested, or having their cars and phones searched on the basis of observed or suspected drug or paraphernalia possession. Two participants who were stopped for possessing needles noted that police honored SSP identification cards.

- "You can look at some of them [police officers] and you can tell they're kind of crooked... A lot of times you get caught with a bundle of dope around here... they take your dope, throw it in the back of the trunk and let you go... Any other place you're going to jail, you're even going to see the commissioner. I've been picked up a lot of times with dope in my pocket from [gas station] and... they'll take me on a side street where there's nobody at and they'll get out, take the cuffs off of me and say, "You have a good day. I don't want to see you back out." They let me go... They can't do nothing about the needles because I have a card that I'm allowed to have them. But with the dope and everything, why ain't you writing it down on your little paper?... Why are you just throwing it in your trunk and letting me out here on a side street where nobody can see me or see you?" –CO #2

- "When I presented them that [SSP identification] card they just acted like they didn't want to follow it. They wanted to disregard it and just slam me...But they didn't. They... had to follow the guidelines... because everything was being audio and digitally recorded [by bodycams]." –CO #5

- "The cops around here are... just out to destroy anybody's life... If you have a young person and he gets caught doing something, I think they should not... just want lock them up and throw away the key... there just got to be some kind of reform somewhere with that and there's just not, it's worse and worse every day... After a drug overdose they'll take your phone, at a traffic stop they'll go through your phone, they'll tell you they can search your car for a high drug area, everywhere is Cecil County is a high drug area." –CO #3

Harm reduction strategies

When asked to describe general harm reduction strategies they used, many participants shared that they used new syringes, disinfected the injection site, and injected in a new spot each time. Needles were typically obtained from the Cecil County Health Department, Voices of Hope or trusted individuals. A few participants also shared that they used sharps containers, fentanyl test strips and avoided sharing cookers.

- "I don't try to do too much, I only do a little bit at a time… [I] don't share needles, use a new one every time, use alcohol wipes, hand sanitizer and make sure [I'm] going in a clean spot." –CO #2
- "[I] try to make sure that I don't share my cookers with anybody, especially because I don't want them to maybe forget that I don't use dope and they end up pulling up their dope into my cooker and remnants be left in it when they give it back to me and I go to use it." –CO #5
- "I try to stay hydrated. Super hydrated. I take vitamins... I don't share needles. I don't share anything that could transmit any sort of disease... I have strips, fentanyl testing strips, and I test everything." –CO #6
- "[I] don't leave no dirty needles behind, none of that… I would have a bottle, a plastic bottle… anything I could…to dispose of them in a safe location. Because I mean, you got kids that run around…dogs, cats… You don't want nobody running around… get a needle in their foot… Wipes are really important to have. Every time you get done using that needle, get the alcohol wipe and wipe where you shot up at. That way it doesn't get infected. It stays clean." –CO #8
- "I tie off-- I tie off really tight. I also like to use a flashlight and I put it against my skin, you know, and to try to see a vein... [When] I [lived] here in Elkton... I always had... some kind of way of getting... syringes... Now that I'm in Northeast, I can just go to the Walmart and pay $1.26 and get a bag of them... Or I can come here... When I can't find one [a clean needle], I go find one. I go ask people." –CO #9
- "Not sharing… needles… Make sure…your area's clean and you're using… sterile objects… so you don't get any bacteria or… anything that could really hurt you… make you sick… or potentially kill you." –CO #10

Regarding MA use specifically, some participants specified that they made sure to eat and sleep as they had previously experienced appetite suppression and sleep cycle disruption while using MA.

- "Even though it might be difficult to do, I try to force myself to eat when I'm on it [MA], because it will make you have zero appetite when you're high on it... After a day, maybe two, I sleep. No matter what, force yourself to sleep." –CO #5
- "You know, it can make people not want to eat or drink. I used to be that way, but I would manage to, you know, take myself to where I can eat and drink now if I smoke some marijuana along with it." –CO #8

Health concerns surrounding MA use

Participants shared various concerns about their MA use. Some were worried about their MA supply being contaminated with other substances including fentanyl and bath salts.

- "The only time you're going to get sick off of meth [is] if it has fentanyl in it, because I know somebody that was on Suboxone and was doing meth. They didn't do no dope [heroin/fentanyl] or nothing, but they were getting sick." –CO #2
- "You've got to be careful with it because they put bath salts in it. You've got to be real careful with what you buy. –CO #3
- "[I don't like] that there's Fentanyl in it. And why would you put a downer in an upper?... Of course, they want to get people addicted to it… to keep them coming back, but if people are spending money on something that… is supposed to be an upper, then they probably don't want any downer with it because if they did, they would buy that." –CO #10

A few participants also noted skin-related concerns, including recurrent rashes, wounds and numbness/hypersensitivity, associated with their MA use. One participant, who used both MA and opioids, suspected that their recurrent abscesses were a result of drug supply contamination, but did not specify whether the wounds occurred after using either substance in particular.

- "I've heard everybody say that when they pee or when they, you know, when they ejaculate or whatever that it feels like shards of glass coming out, which is another reason why I slowed down my methamphetamine use because it comes out of me, it comes out of my skin like shards of glass, so literally like I have a rash and I have to literally pick all that out, like if I was crazy." –CO #3
- "I had this little pimple on my face, and I popped it. And it turned into an abscess… I'd go to the hospital to get it cut open… I don't know if it was the drug or what was going on, but after one would just be healing, I'd just get another one. I feel like it's what's in the drugs. And it would come out on all parts of my legs. I didn't shoot up in my legs… So I think that I was getting them from what was in there. And it was painful, and it was scary. And I have big scars all over my body from them." –CO #4
- "Both sides of my neck... [are] numb... when I take a shower... and I go to take the soap and washcloth...over the top right part of my chest, it is like the craziest feeling, like nails on a chalkboard... I can't stand to touch... I guess because of nerves... That's... stuck with me for a while and, you know. Who knows how long it's going to be like that?" –CO #9

Participants also noted that they or someone they knew to be using MA experienced paranoia, hallucinations and psychosis. Some also shared examples of violence and robbery that they attributed to MA use.

- "When you're up for a couple of days on it [MA] you start being real wired, you start seeing sh*t that's not there, you start talking to yourself, hallucinating like, "Oh my god there's something there," and there's nothing there, you're fidgety like a zombie pretty much, don't know who's here, who's there and people can really tell that." –CO #2

- “It can crack up the paranoia... you're paranoid all the time. You feel like the world is out to get you... If you have ADHD, it can really make you wound up and all that stuff. And also, it can... pretty much deteriorate your memory... I've been so high for days before where I'll wake up and… I didn't know what the day was... It could make you feel like you're probably living in the middle of, like, say June or something and it could be January... It can take you into one of those trips.” –CO #8

- “I was told I just become a completely different person... I've done things to people that I would not normally do... I never used to steal from stores [but] there was at one point I was taking literally racks off of shelves because of this... [I am concerned about] long term psychological effects [from MA use].” –CO #5

- “When I was attacked, I knew the person and I know it was because of the meth. He’s not that type of person. I've known him since I was… [young]… It definitely changes your thinking and your reaction to things.” —CO #6

General health experiences

About half of the study participants stated that they had no health issues. The others reported experiencing mental health issues including depression, anxiety and PTSD, Hepatitis and rapid weight loss. One participant also shared that they had diabetes and another participant reported a history of cancer; both noted not seeing healthcare providers regularly for these conditions. Another participant noted that incarceration and rehabilitation had opposing effects on their self-esteem and weight.

- “I do have depression and anger issues, I'm on Prozac for that. Well I used to take Prozac for it, I used to be on 100 milligrams of Prozac every day for anger and depression, but I don't take it no more, just once in a blue moon.” –CO #2

- “I have Hep C, and I got Hep B on top of my Hep C when I went into rehab a couple of years ago, so that almost killed me… I have PTSD, anxiety, depression.” –CO #3

- “Weight loss. I got out of rehab. I was in rehab for three months and jail for three months before that. When I got locked-up I was 130 pounds. I came out of rehab at 205 pounds, and I felt amazing. I was working out every day. Well, I relapsed after 10 days, and, well, that was two months ago, and I'm probably at about a buck 65 now.” –CO #5

- "Drug use keeps me away from my doctors... I already have enough... racing thoughts going through my mind and staying up all the time … since I've had cancer, I found out... I have something with my thyroid...I had to ask somebody how would I have something wrong with my thyroid now and they said radiation... It’s bad because I want to know all I can and be informed about what I'm doing to myself. But at the same time I don't want to because once you know you can't get back to not knowing.” –CO #6

- “I'm diabetic. I never been to the doctor about it. I found out just because in booking now they prick everybody's finger and they had to give me insulin… I guess it was caused from years of drinking… I'm sick a lot. I'm sick every single day and then candy helps me.” –CO #9

Experiences with overdose

Several participants reported ever overdosing on any drug themselves or knowing someone else who had. A few participants described their overdoses in detail. Overdoses typically involved opioids.

- "I've only ever overdosed once… It was an accident, because I was given something that was already crushed up…it turned out it wasn't crystal meth. It was fentanyl, and I'd never done fentanyl, and I did a big line of it and died and was brought back with Narcan… they didn't need to [call 911]." –CO #5

- "My first overdose, I was 18 years old. It was 3-day Fentanyl patches. I ate like 6 of them…and a bunch of liquid Oxycodone…. I made it all day long… almost a whole 24 hours before I did [overdosed]. Then me and my girlfriend were laying down for bed… everything… faded to black and then I woke up… on my living room floor…they had to give me adrenaline, a shot of adrenaline in my heart…she [participant's girlfriend] said "you went right to sleep and immediately you started, like, going purple and-- you know, and your heart stopped"… it took 45 minutes for the ambulance to get there… My mom wasn't home… My dad gave me CPR for that amount of time… that was a bad overdose. I was admitted to the hospital for a couple days with that one." –CO #9

Most participants stated that they had not ever experienced an MA-involved overdose and they were not concerned about it. A few others entertained the possibility of an MA-involved overdose but remained skeptical. Two of these participants cited fentanyl adulteration as an additional potential cause of overdose.

- "There was this one time I trusted somebody to set up a meth shot for me, and when I did it, it took my breath. Like, bad. Burned my throat. My ears would not stop ringing. I couldn't stop throwing up. My anxiety was through the roof, and I mean, I was like this for 25 minutes or more. And I was so scared for hours and hours and hours after that. I'm like, "People are trying to kill me or do something… if there is one [an experience of overdosing on MA], what I just described, to me, would be that." –CO #4

- "I never had [overdosed while using MA] before… Last month two times I overdosed. And I think-- well, there had to be opiate or fentanyl or something mixed in with it because they Narcan'd me a couple of times… why would Narcan help?" –CO #6

- "With meth, no. I had maybe [been] at risk [of an overdose] before. The only thing it really has done to me was give me panic attacks where my heart was like rushing and going way too fast and there were times where I had to tap out and go to the hospital… There's not much things they [hospital providers] could do for people who are on meth, like, it's not really studied upon… What they [people using MA] could do is lay in the hospital bed, drink some water and try to calm down and whatnot… their heartrate eventually does… get back to regular rhythm… I haven't really heard of anybody that had died off of meth, but I heard it can-- it can get-- it can kill you technically, say if you're driving-- I heard somebody was driving a car and they were having some kind of panic attack or something and they were hallucinating so bad to the point where the dude had wrecked his car… I don't know whether he lived or not… He thought he had killed his kids but the whole time he was hallucinating and sh*t. And so, he ended up crashing…

[if] somebody has overdosed and died from it, it's because nine out of ten their meth was laced with too much Fentanyl." –CO #8

Visions for future resources and systems of support for MA users

When asked to describe what future resources, if developed, would be the most helpful to MA users in Cecil County, participants reported wanting job, educational and housing assistance, safe injection sites, decriminalization of substance use, and supportive communal spaces to discuss and practice maintaining their health and well-being.

- "If you're an addict… you're not getting a job around here unless you work like concrete or paving or something like that. We need more jobs and… more people to help the homeless out." –CO #2

- "I think we should have… places up where people can… use [drugs] where they have nurses and medical staff… they need to do something because it wouldn't be as… rampant… you wouldn't have all the drug addicts out stealing… if they [drugs] were legal, then you're allowed to do them… what gets people in trouble [is that] everything is illegal." –CO #3

- "I don't know if you can encourage a meth-head or whatever to eat at least one meal a day… If you're doing all that [using MA], plus you're not feeding your body, you're just really tearing it up. So I feel like… [we should] teach people that they need to also care for themselves." –CO #4

- "What would help… is if they had… therapy groups… more supportive meeting groups, you know, for people who are only using meth… There's places like… NA or Narcotics Anonymous… AA is Alcoholics Anonymous… that's all I can think of." –CO #8

- "Well, I'm with my girlfriend right now, she has Section 8. But, like, now technically I don't live there... So... housing could be... really important for me. And another one is... I really want to get that-- I really want to try to get that $6,000 dollar grant for school... I f*cked up for too long and I don't have no... plan for retirement or nothing... If I was to really put my mind to it... I could do something... What's going to pay me and... [what] benefits could I get... with some kind of degree and stuff?... Somebody to help me actually do those things would be a resource... or somebody to help me... find out [how to do them], like... a caseworker." --CO #9

Target audience for study findings

When prompted, participants generally supported sharing study findings via a pamphlet or presentation. In terms of target audiences, one participant advised sharing study findings with the general public, and another suggested focusing on PWUD to raise awareness about local harm reduction resources.

- "Everybody. Everybody. I don't think that just certain organizations or people or groups-- I think it should be just everybody... I feel like if the world did more helping each other, things would just be different. There's a lot of hate." –CO #4

- "I don't think it should be targeted to people that don't use drugs. Definitely, people that do do drugs just to make them more aware. Awareness that there is help. And there are places with

unlimited resources when you're ready to use them. I use every resource I could. When you want to do something different and you want to do the right thing, there's plenty of people to help you get to where you need to be." –CO #6

Summary of Findings

- Participants reported initiating any drug use in late adolescence/ early adulthood, often beginning with opioids before using methamphetamine (MA).
- Participants tried MA for the first time in a social setting, such as a party or a friend's house, and were introduced to the substance by a friend or an older relative or acquaintance. Initial MA use was 2-8 years ago.
- Participants used both heroin/fentanyl and MA every day or most days each week. Some noted using both substances simultaneously.
- Participants described local MA use as being prevalent across multiple age and racial groups, and among people living with ADHD, with multiple work/family obligations and those who are part of the LGBTQ+ community.
- MA was reported to be widely available in Cecil County; additional locations for procuring MA included Philadelphia, PA and Delaware. Participants typically obtained MA from people they knew in these areas.
- Participants are well-informed and regularly practice harm reduction strategies and utilize local health and social services available to them. Voices of Hope was identified as the most trusted local resource for peer support and safer drug use supplies because staff were usually people in recovery themselves. Participants also described utilizing the Cecil County Health Department's syringe exchange program and the Mary Randall Center for food, showers and obtaining an ID.
- Conversely, hospitals and law enforcement were described to be the least trusted resources, especially in overdose situations. Experiences with law enforcement were generally described to be negative and associated with drug or paraphernalia possession. However, two participants noted that police honored their SSP identification cards after stopping them for needle possession.
- Several participants shared various concerns associated with their MA use. Some were concerned about unintentional polysubstance use, specifically with their MA supply being contaminated with other substances including fentanyl and bath salts. Others also noted skin-related concerns including recurrent wounds, paranoia, insomnia, hallucinations and psychosis.
- Several participants had ever experienced a drug overdose themselves or knew someone else who had. Participants expressed skepticism towards but entertained the possibility of experiencing an overdose involving MA. Some cited adulteration by fentanyl as an additional possible cause of overdose.
- When asked to describe what future resources, if developed, would be the most helpful to MA users in Cecil County, participants described needing job, education and housing assistance, safe injection sites, decriminalization of substance use, and supportive communal spaces to discuss and practice maintaining their health and well-being.
- Participants recommended utilizing both online and printed educational materials to share the findings of this study with multiple target audiences, to raise public awareness about MA use and to inform MA users about local resources available to them.

Recommendations

Acknowledging ongoing and future work planned to address the needs of PWUD in Cecil County, our findings suggest the following potential steps forward to enhance local capacity to address the needs of people using MA:[17,18]

- Create and disseminate online and printed educational materials (e.g. pamphlets) and utilize existing community forums to:
    - Share study findings;
    - Increase public awareness surrounding MA use;
    - Address misconceptions about how Narcan and MA can affect the body;
    - Inform users about health risks associated with MA use including but not limited to overdose, recurrent wounds, and psychosis, and
    - Sustain and expand local resources available to PWUD.
- Increase investment in and collaboration between trusted local resources such as Voices of Hope, the Cecil County Health Department and the Mary Randall Center to:
    - Improve accessibility and utilization of food, housing, education and employment assistance programs among MA users, and
    - Cultivate additional peer support spaces that promote social cohesion, health and well-being.
- Implement programs to reduce stigma, enhance relationships, and build trust with law enforcement and medical facilities.

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