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BLOOMBERG SCHOOL
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# Key Problems and Recommendations across the Wound Care Continuum:

## *Preliminary Results from Two Qualitative Evaluations*

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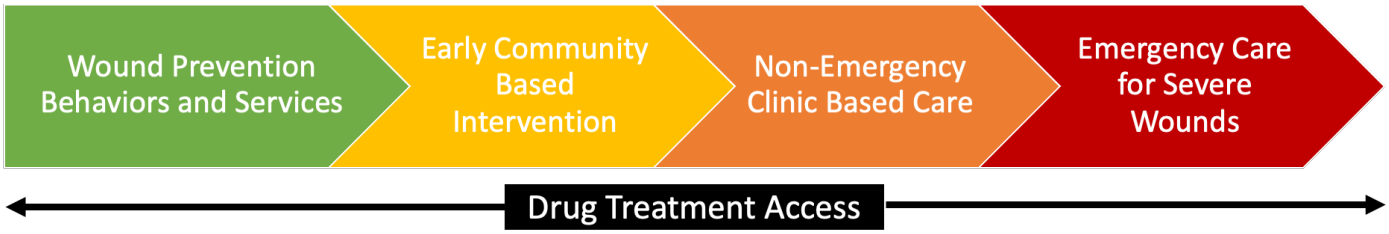
The purpose of this report is to summarize the preliminary findings of two qualitative evaluations of harm reduction programs in Maryland, which were conducted in partnership between the Maryland Department of Health's Center for Harm Reduction Services and the Johns Hopkins Bloomberg School of Public Health. The first evaluation assessed the impact of a new state drug surveillance system, Rapid Analysis of Drugs (RAD), on people who use drugs (PWUD)'s behaviors and health. We conducted 39 in depth interviews with PWUD and 19 interviews with syringe services program (SSP) providers in order to understand people's perceptions and use of RAD. The second evaluation, titled Wounds: Risks, Access to Care, and Prevention (WRAP), focused on experiences with wounds, treatment experiences, and prevention behaviors for PWUD, as well as the availability of wound care services in SSPs across the state. The WRAP evaluation included an additional 25 interviews with PWUD, 10 interviews with wound care specialists at SSPs, and 10 interviews with traditional medical providers (e.g., RNs, NPs, MDs).

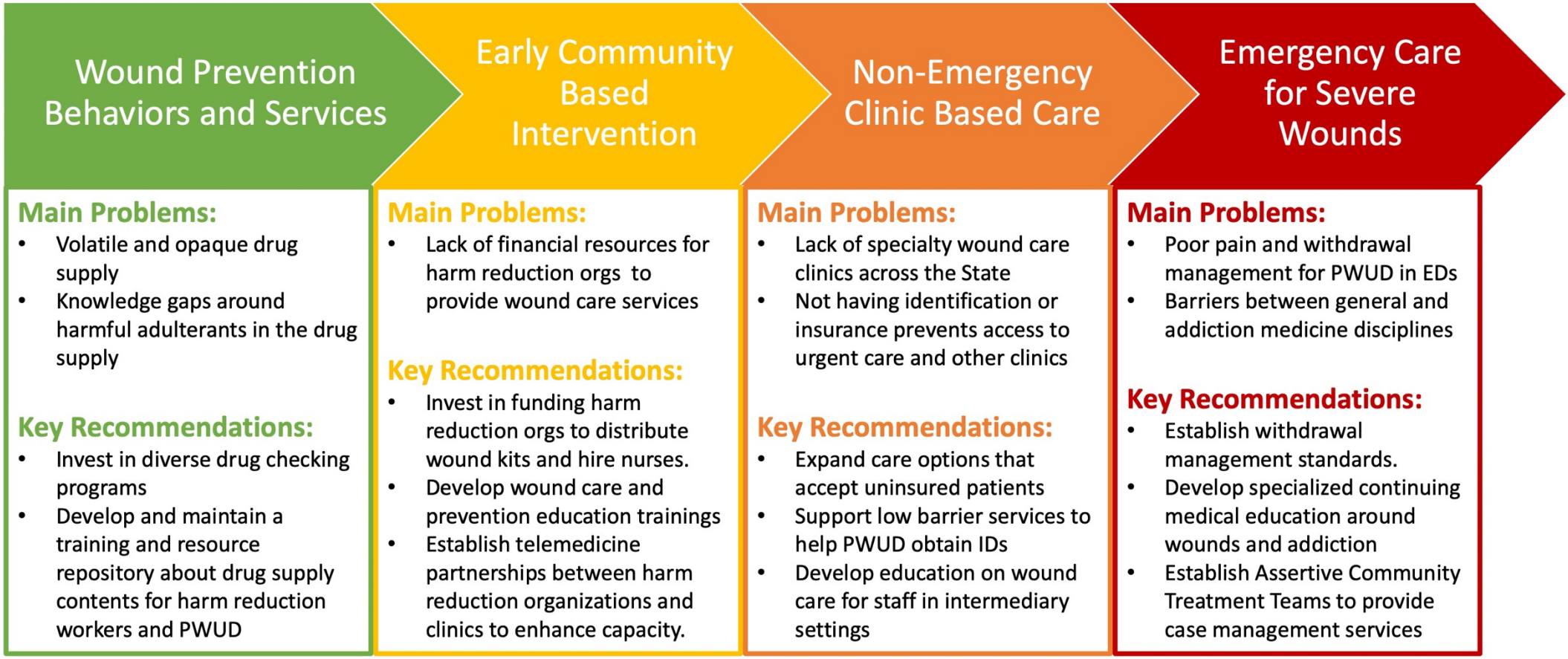
Findings from these studies revealed a continuum of wound care experiences for PWUD, which indicates useful point of intervention to prevent severe, wound-related health outcomes.

## Continuum of Wound Care Services and Experiences for PWUD




We have identified key problems that have contributed to the increase in severe wounds and related health complications within each of the four stages of the continuum. We then make key policy and practice recommendations for each stage that were developed based on the key themes that emerged from our evaluation work.

# Key Problems and Recommendations across the Wound Care Continuum



## Wound Prevention Behaviors and Services

**The drug supply has become increasingly unpredictable and volatile, and PWUD remain largely uninformed about xylazine and other potentially harmful cuts and additives.**

**Main Problems:**

1. The drug supply has become increasingly unpredictable and volatile, with many newer "cuts" or additives being introduced.

2. As a result of the opacity of the drug supply, PWUD often have poor quality information about the contents of their drugs or any health effects of cuts or additives. This lack of information makes it difficult for PWUD to take meaningful action to reduce any negative health impacts they might experience, including xylazine-related wounds.

***"Because in the past, it was, it seemed to be mostly just heroin and some cut. Now it's not really even heroin, it's tranquilizers and fentanyl and other cuts. And horse medicine and all sorts of different things." -***
**SSP Participant, Frederick County**

**Key Recommendations:**

1. Invest in drug checking services across the State. Services should include expansion of the RAD program, the distribution of fentanyl and xylazine test strips, and advanced point of care drug checking services using Fourier transform infrared spectroscopy (FTIR).

   *Rationale:*
   The RAD program was the primary way that PWUD and SSP staff had become aware of xylazine in the drug supply. SSP providers reported that RAD results were an important opportunity for them to provide education and further engage clients with their services. PWUD who participated in RAD often cited the knowledge they received from the RAD program as a motivator for behavior change. Reported behavior changes ranged from reducing high risk injection practices, like "skin popping", to switching sellers to avoid harmful cuts, to cutting down use or entering treatment. PWUD also reported using the RAD program to expand knowledge among their peers to mitigate harms associated with cuts in their drugs. The following participant testimonials highlight the importance of drug checking programs for behavior change:

***"Definitely got me thinking about doing this shit. That's why I want to get clean. Because I'm putting nothing but garbage in my body, so…Trying to do a little less of it. And just try to be very careful and make sure I'm not missing [ a vein], you know."***

***SSP Participant, Baltimore County***

***"If there's a weird reaction to it, yeah. I try and get it in [to RAD] as quick as I can. So, if there's a problem, we can let people know. Try hurt less people as possible."***

***SSP Participant, Cecil County***

***"Over this past year, I've learned a whole lot about what goes into drugs and what's causing the huge problem that's coming in our area with the xylazine…It's made me a lot more cautious to actually try and get it into a vein. I was a big skin popper back in the day, but that's the most damaging thing you can do with xylazine is skin popping."***

***SSP Participant, Cecil County***

Both SSP staff and PWUD reported a desire for more access to drug checking services, especially services that could be utilized prior to a person consuming their drugs. Based on the findings of the efficacy of the RAD program in promoting behavior change and the desire for expanded services, we recommend that Maryland invest in a comprehensive drug checking infrastructure. Such an infrastructure should include expanding the RAD surveillance program to obtain a more representative cross-section of the drug market, point of care testing at SSPs using FTIR devices and confirmatory testing with mass spectrometry, and distribution of fentanyl and xylazine test strips. Further information from the RAD and point of care FTIR testing should be integrated into a combined surveillance database to inform public reporting and the training repository in the following recommendation.

2. <u>Develop and maintain a training and resource repository about the drug supply contents</u> from drug checking results as a resource for PWUD, SSP staff, and other harm reduction workers.

*Rationale:*
PWUD and SSP staff frequently reported a desire for more information about the different compounds identified in their drug checking results. While some resources exist for certain drug components, there is no centralized, comprehensive repository of these resources. SSP staff also desired training for how to best discuss drug checking findings for participants and what harm reduction practices and resources were relevant to the different substances. As new cuts emerge in the drug market, additional guidance is needed. Currently there is no existing mechanism to develop new guidance and education materials as new cuts are identified. Maryland should establish a training and education institute that is continually updated in response to drug checking results from RAD and any new point of care programs. This training should have integrated information about the psychoactive effects of a substance, its purpose in the drug supply, health harms, and any evidence-based harm reduction strategies to mitigate harms. Such resources could be integrated with existing programs, such as the Maryland Harm Reduction Training Institute (MaHRTI). In addition to more extensive training for harm reduction workers, digestible fact sheets and other broadly distributable resources are needed to assist in education efforts for PWUD. An ongoing system for updating resources as the science around different substances advances is needed to support these efforts.

***"I think I would like more education on certainly the drugs that I'm seeing are just rotting the skin. [...] I have very few resources and even anybody with knowledge of what is the best approach to it. You know, can there be different approaches? Trying things? See what works? I wish there was a resource that I could go to and say, 'This is what I have,' you know. 'What's the best way to do it?'"*** **- Registered Nurse, Cecil County**

***"I'm grateful that they add some notes in the response section to kind of give us an understanding of what the additional adulterants are that we're seeing in there. But having an updated resource of this is what you're seeing whenever you get the results so that we can better have those discussions with our participants. I guess having a resource like that, that's an updated resource [would help], because I think sometimes just Googling things is leaving us a little wanting in being able to have those conversations."*** **- SSP staff, Allegany County**

## Early Community Based Intervention

There is an unmet need for community-based, low-barrier wound care for early-stage wounds. SSPs do not currently have sufficient capacity to address the issue.

**Main Problem:**

1. There are few community-based, low-barrier wound care services available for early-stage wounds. SSPs offer varying levels of wound care services and supplies to participants based on their capacity, but many SSPs lack staffing, financial resources, or relationships with medical providers to provide comprehensive wound care services, including antibiotic prescriptions for infected wounds. SSPs may be dependent on other programs to provide wound care services, which may be insufficient to meet clients' needs.

**Key Recommendations:**

1. Invest in funding and training resources for SSPs and other harm reductions organizations to enhance their capacity to provide wound-related services to PWUD. Such services include education around wound prevention and self-management, wound care supply distribution, hiring harm reduction nurses that can provide low barrier wound care in community settings, and peer staff to coordinate wound care follow-up with PWUD.

   *Rationale:*
   PWUD strongly preferred to receive wound care services from trusted SSP providers than in hospitals or other medical settings due to a range of previous negative experiences. Many PWUD refused to go to any formal medical setting until their wounds were emergent, resulting in significantly worse health outcomes than if they had received earlier community-based care. SSP staff did express a strong desire to meet these needs, but often cited a lack of training and resources to do so. Staff desired training for how to teach PWUD to care for their wounds when they first emerge to prevent them becoming more serious or being infected. Similarly, PWUD often request education for how to take care of wounds themselves. Few SSPs had trained medical professionals, such as nurses, on staff that could assess and treat wounds. SSP staff frequently expressed that financial limitations prevented them from hiring wound care nurses. SSP staff also expressed a need for funding of wound care supplies to distribute to PWUD in the community. Finally, SSP staff often referred clients to hospitals or other medical facilities if they could not meet the client's needs, but programs typically lacked the capacity to follow-up on these services or provide the care coordination that was needed for longer term

> ***"So I would love to have somebody that could evaluate an individual when they come in and take a look at their wounds to determine how serious they could be, because again, [SSP staff] are not trained professionals. What looks bad to me could just be, you know, fever blister, but to have that available because people don't walk in at a specific time for their wounds to be assessed. I mean, the times vary."*** **- SSP staff, Wicomico County**

> ***"Yeah, I've worked with a couple clients who over the years who have had wounds that have looked pretty severe and have dressed them-- and have asked for supplies and then maybe like sat outside and dressed them themselves, especially at the height of the pandemic, and been in a conversation and being like, "I think that wound really requires-- looks like it requires some additional medical care," and people are pretty resistant to going up-- to going into a hospital."*** **- SSP staff, Baltimore City**

healing processes. As a result of these findings, we recommend significant further investment into training and financial resources to build wound care capacity in existing SSPs and other harm reduction programs. Doing so will allow providers to meet the needs to PWUD in their preferred care setting, mitigate the health harms of wounds by intervening early, and build the capacity of community-based programs to respond to other emerging health issues due to the drug market.

***"If you can have people come out here and train us how to take care of [wounds], that'd be great, man, it really would. It would be a big help... Because a lot of us, you know, I've even had friends out here get shot, and they wouldn't go to the hospital unless they could get well and have drugs."* - SSP Participant, Baltimore County**

2. <u>Strengthen partnerships between community-based organizations and local health departments and leverage telehealth</u> as a low-barrier way to provide prescribing services to PWUD. Existing harm reduction orgs have established trusted relationships with clients that can be leveraged to expand services.

*Rationale:*
In addition to the capacity limitations noted above, SSPs that did offer wound care services and had nurses on staff still did not have prescribing capacities. This was viewed as a significant limitation of their services as they were unable to provide antibiotic prescriptions to clients with infected wounds. As PWUD were hesitant to seek medical care in formal medical settings, providing prescribing services in the community may be the only way many PWUD will be able to access essential medications. Strengthening these healthcare partnerships and integrating telehealth services into existing SSPs will serve to address a variety of physical and behavioral health needs for PWUD that may otherwise have gone untreated. Such partnerships can also lay the groundwork for future integrated health services, like PrEP provision and mental health treatment.

***"Like I was talking about before, with the Health Department, they were our main people actually providing wound care, changing dressings and stuff like that. But we realized that every other week wasn't enough, and we were realizing that even with the wound care supplies we were giving out, a lot of participants still weren't changing their dressings on a frequent enough basis for the wound to be able to heal."* - SSP staff, Baltimore City**

## Non-Emergency Clinic Based Care

PWUD face significant barriers to accessing intermediary care settings (e.g., urgent care) as wounds progress.

**Main Problem:**

1. <u>PWUD face a range of barriers to accessing intermediary care settings that would be able to provide more advanced services before wounds become emergent</u>. In many cases, PWUD who have wounds are often stigmatized and have even reported not being accepted into traditional healthcare settings, which deters PWUD from receiving wound care or other healthcare treatment from primary care physicians or clinics. This in turn pushes people into waiting until their wounds need more urgent care before seeking treatment. However, given the need for insurance, identification documentation, and a lack of education surrounding PWUD who are experiencing wounds, intermediary care settings are an essential but inaccessible resource for PWUD that need care. With the following recommendations, urgent care

centers could improve the accessibility of their services to a wider population and treat patients who are in greater need of intermediary care services.

**Key Recommendations:**

1. Expand alternative intermediary care options statewide that accept patients regardless of their insurance status or ability to pay.

   *Rationale*:
   Intermediary care options, like urgent care centers, usually require patients to have some form of insurance before accepting patients into care. Oftentimes, this practice presents a barrier to care for PWUD who are experiencing wounds since they may not have insurance or insurance information with them. With competing daily needs and needing access to transportation to maintain the administrative burdens of enrolling in and maintaining insurance coverage, this issue is not easily resolved in a timely manner. By making intermediary care options more accessible to patients who don't have insurance or the ability to pay, PWUD can easily access treatment for their wounds before they reach the stages of needing emergency care, as well as reduce xylazine- and wound-related pressures on already overburdened emergency departments.

   ***"A lot of folks are uninsured, or lack IDs, so if I want to refer them to a higher level of care like a wound care specialist, they may not be able to do that if they don't have health insurance or a form of ID." -* SSP staff, Baltimore City**

   ***"They have to have their ID and of course their Medicaid care or their insurance. I think you pay upfront, most of the urgent cares." -* Registered Nurse, Frederick County**

2. Support low barrier services to assist PWUD in obtaining basic identification documents that will enable them to access services at urgent care clinics.

   *Rationale*:
   Another barrier to accessing intermediary care options for PWUD is that urgent care clinics will not treat a patient who does not have a valid ID (I.e., not old or expired). With limited access to transportation and competing daily needs, many PWUD do not have the resources or time required to obtain new ID documents if theirs are stolen or they do not have any updated documentation. By supporting clinic outreach efforts to support potential patients in getting new IDs, these clinics can help people obtain new identification and expand the accessibility of their services to people in need of urgent care for their wounds.

   ***"That's happened a couple of times, you know. They don't go to a doctor, so they may be assigned one with their MA card, but they've never been. So that's the barrier for the Wound Care Center. I said, 'Well, how about Urgent Care, you know? You'll need an antibiotic. Let a doc look at it." The problems there is most of them don't have IDs and they won't see them without an ID. And it has to be a valid ID, it can't be an old or expired. It must be a valid ID or they will not see them." -* Registered Nurse, Cecil County**

3. Develop targeted training and education integrating clinical guidance on wound care and substance use treatment for staff in intermediary care settings.

   *Rationale*:
   Additional training for providers is needed as there are a range of knowledge and behavioral gaps among providers that negatively affect PWUD's medical care. First, xylazine-related wounds require a different treatment protocol than other types of wounds, which are relatively unknown among providers. Given that many PWUD are experiencing wounds due to xylazine, providing the education and training necessary for intermediary care staff to properly treat and manage these wounds is essential. Additionally, stigma against PWUD and limited knowledge of addiction medicine is common

among providers who most frequently see PWUD. Providing better education regarding general wound care for PWUD will help in breaking the pattern of stigmatization and poor treatment due to one's substance use in these settings, especially as it pertains to providing the appropriate pain management options for patients. One potential avenue for delivering these trainings is through developing in person or virtual modules that provide Continuing Medical Education (CME) credits to participants.

## Emergency Care for Severe Wounds

PWUD have negative experiences accessing care in hospital settings. Interdisciplinary gaps between general and addiction medicine create a lower standard of care for PWUD.

**Main Problems:**

1. PWUD have extensive negative experiences accessing care for advanced wounds in emergency departments and inpatient hospital settings, leading many to avoid or delay seeking care. These experiences take many forms, including experiencing stigma from providers and being denied adequate withdrawal and pain management. Experiences of withdrawal were the most commonly cited reason among PWUD for forgoing or delaying care seeking or leaving before completing treatment. On top of that, PWUD relayed numerous instances of negative interactions with hospital staff who were rude or dismissive of their complaints, minimized their pain, and threatened to call the police or have them searched.

2. Interdisciplinary gaps between general medicine and addiction medicine create a lower standard of care for PWUD, in which their care needs are not adequately addressed. Providers in emergency or general medicine often do not have the experience or desire to care for patients with long-term addiction needs while providers working in addiction medicine lack the medical background to deal with patients' overwhelming health issues. As a result, there are few providers with expertise in both specializations fully equipped to manage the complex care needs of this population. Indeed, the absence of any kind of withdrawal management represents one of the main institutional-level barriers to PWUD seeking care in emergency department settings. Hospital-based providers reported that while there are withdrawal management protocols for alcohol and benzodiazepine use, no equivalent currently exists for opioid use disorder. Long wait times of up to 20 hours in some emergency rooms further complicate pain management needs for PWUD. On the patient side, PWUD often face a range of socioeconomic barriers to engaging in the type of long-term care required for chronic wounds, including food and housing insecurity, lack of health insurance, competing responsibilities (e.g., childcare), and unreliable access to transportation. PWUD lacking comprehensive, transdisciplinary support in overcoming each of these barriers were liable to fall out of treatment. The recommendations

***"The problem is when you go to hospitals they don't want to treat the addiction part. People don't want to go because they don't give them medicine so they're not ill. That's the problem."*** **- SSP participant, Cecil County**

***"I'm too ashamed to [go to the doctor] unless I get an abscess...So a lot of them will degrade you and look at you like you're a straight junkie, and you don't feel very good about yourself, and it irritates me sometimes."*** **- SSP non-participant, Baltimore County**

***"Yeah, leg getting cut off. I didn't go to the doctor in time. […] I waited too long. I was naïve. [I] didn't want to be [going through withdrawal] in the hospital, like "Okay, I'll wait it out. I'll go get something. I'll go to the hospital tomorrow," and tomorrow turned into two weeks and two weeks turned into a month and then a month happened."*** **- SSP participant, Baltimore County**

below outline steps for establishing clear and structured protocol that raise the standard of care for PWUD to improve long-term wellbeing.

**Key Recommendations:**

1. Establish well-defined withdrawal management protocol for PWUD throughout their stay in the emergency department to prevent the onset of painful withdrawal symptoms and reduce the likelihood that PWUD will leave against medical advice.

   *Rationale*:
   PWUD often report experiences of being given inadequate withdrawal management while they are receiving inpatient treatment in emergency department or hospital settings. Due to a lack of protocol and the stigma apparent within traditional care practices, many providers forego any prescriptions, like buprenorphine, to address the physical dependency that a person who uses drugs experiences and the withdrawal when they stop taking drugs upon entering the healthcare setting. Without any withdrawal management, patients start to experience painful symptoms. While these symptoms vary depending on substance type and other factors, they tend to include nausea, vomiting, sweating, anxiety, and more. Furthermore, given the presence of new cutting agents like xylazine in the drug supply, these withdrawal symptoms can become more intense and possibly even life-threatening. With these combined issues, PWUD are often pushed to leave care against medical advice in order to stave off the painful symptoms that aren't being treated by their care team. With an established withdrawal management protocol, PWUD could avoid these painful symptoms and allow both themselves and the care team to focus on the emergency health concern at hand.

2. Establish Assertive Community Treatment (ACT) Teams for ER-based non-medical staff (social workers, peers) to advocate for PWUD, coordinate wound care follow-up, and provide case management services.

   *Rationale*: PWUD have many health care and social service needs, yet many lack the capacity to navigate a complex service landscape encompassing drug treatment facilities, community-based organizations (e.g., SSPs and other harm reduction organizations), and outpatient clinics. Emergency department-based ACT Teams comprising peer recovery coaches and social workers are a key resource for connecting PWUD with critical and comprehensive case management services. By providing these services, which could include support entering drug treatment, coordinating transportation to and from outpatient clinics for follow-up care,

***"If you're habituated to Fentanyl, which was one of the strongest pain killers that we know, and it costs $3 dollars to become well again and you could buy it on Eastern Avenue just right out our front door, why would you wait in the Emergency Department if someone wants to offer you Motrin or Tylenol?"* - Physician Assistant, Baltimore City**

***"I think, once again, the challenges are once those patients get admitted into hospital after a lengthy wait time in the waiting room, waiting in the emergency department for a long time and then going into an inpatient space, if those withdrawal management, I keep pounding on that, if those aren't met properly they will leave. Or all of the sort of various issues that are going on in their life. You know, many of these patients live in chaos. We didn't even touch on, you know, female patients that inject drugs that have children. It's all of these sort of speed bumps that complicate everything."* - Physician Assistant, Baltimore City**

***"The resources that are needed for this particular patient population. So to the patient that I was talking about earlier that came with an extensive wound that ultimately received an amputation, during his first and subsequent admissions, it was, you know, it required close involvement from the Emergency Department, Internal Medicine, Infectious Diseases, Plastic and Reconstructive Surgery, Orthopedic Surgery, Addiction Medicine, the Chaplain saw them, the Social Work team saw them. Like, it requires a huge team approach. And if any one of those important links are missing, that's what I believe results in the against medical advice discharges once they're admitted."* - Physician Assistant, Baltimore City**

and assistance applying for federal benefits like health insurance, social security, or food stamps, ACT Teams can help address many of the barriers preventing PWUD from engaging in long-term care.

3. Strengthen partnerships between hospital staff and community-based organizations to facilitate referrals to outpatient services (e.g., for wound care, substance use treatment) and support adherence to treatment plans.

   *Rationale*: Once severe wounds are treated in the emergency department, patients are released without a hand-off to outpatient services that could help them manage the care of their healing wound or access substance use treatment if they wish to do so. Creating partnerships between hospital staff and local organizations that provide services for wound care, harm reduction, and substance use treatment would allow for the development of a referral protocol that connects patients to long term care and management services once they leave the emergency department, as well as other needed resources to reduce their risk of acquiring severe wounds. By strengthening the partnerships between hospital staff and community-based organizations, PWUD would have better support to adhere to wound treatment plans for their severe wounds and access needed services.

***"We haven't spoken about behavioral health. That's a big one for sure. So if I'm, if we're trying to discharge someone home and we provide them with Buprenorphine and wound care and so on and so forth, unmet behavioral health needs and then unstable housing, you know, so on and so forth, that all impacts, you know, problems with their care. You know, transportation, housing, all the basic needs are huge. And then we're also discharging these patients to the same neighborhoods or same shelters that they arrived from." -*** **Physician Assistant, Baltimore City**

## Drug Treatment Access

PWUD are often rejected from drug treatment programs due to having wounds, making it difficult for them to cease drug use and prevent future wounds.

**Main Problem:**

1. Most drug treatment programs (e.g., detox centers, rehab facilities, recovery homes) are not equipped to manage xylazine-induced wounds or xylazine withdrawal in PWUD, creating additional obstacles for recovery.

**Key Recommendation:**

1. Expand the medical capacity of existing substance use treatment programs (e.g., via telemedicine, partnerships with wound care clinics) to reduce barriers for PWUD seeking treatment.

***"They can't go to [substance use] treatment. They cannot go to treatment. So it doesn't matter. You could be 100 percent through all your stages of change. You could be begging and crying at the door, there's no treatment for you because nobody can take you with wounds. There's no facilities that are equipped to deal with wounds and detox and like the recovery process. Wounds stop people from being able to access treatment."*** **- Certified Wound Care Nurse, Cecil County**

*Rationale*:
PWUD and SSP providers report that PWUD are regularly turned away from treatment due to wounds, perpetuating harms and preventing recovery. According to both SSP-based wound care staff and PWUD, these barriers represent a critical gap in service options available to people seeking to quit or cut down on use. The consequences of PWUD being denied drug treatment are numerous. PWUD unable to access treatment may miss a critical window of opportunity for behavior change following the decision to cease use. Further, PWUD unable to stop drug use due to being denied treatment subject themselves to continued risk for injection-related wounds. One SSP staff member reported up to 20 participants who were unable to enter drug treatment despite being willing to do so. Complicating matters further, many drug treatment programs are ill-equipped to manage xylazine withdrawal symptoms, resulting in PWUD being referred out to more intensive care settings for xylazine detox. One PWUD reported being turned away from three detox centers as a result of his experiences with xylazine withdrawal. By expanding the medical capacity of substance use treatment facilities, we can eliminate significant barriers to recovery for PWUD seeking treatment.

***"And I've seen people crying because they have leg wounds that are healing and no place will take them. These are the grown men that are like, I'm done with this. I got to get off this stuff. I got kids. And then all you can do is be like good luck, buddy. Heal your wounds. Don't die in the next week because you've been cutting back on what you're using. Don't get depressed because we can't send you anywhere. Let's get your leg healed, then we'll come talk about treatment. And then they disappear for another six, seven months running."* - Certified Wound Care Nurse, Cecil County**

***"I think the biggest issue is the xylazine that they're putting in with the fentanyl because I've recently tried to go to three different places to detox and I got so sick that they don't know what to do with the xylazine. They don't know how to handle it, and I was down at Baltimore, and I ended up have to be-- they sent me to the hospital to detox me because I was so sick the detox centers don't even know what to do with me."* - SSP participant, Cecil County**