Final Report – CDC Data Analyst Position

Part I: How to Get Police Engagement – Interview Results

Interview Sample

The interview sample consisted of 10 police officers--6 patrol officers, 3 Drug Unit officers, and 1 K9 Unit officer. There were 8 male participants and 2 female participants. All but one interview was recorded and transcribed verbatim. One participant opted to not be recorded and the notes from that interview were typed up and analyzed along with the transcribed recordings, with quotation marks noting verbatim phrases. Each interview was coded using inductive and deductive coding. Deductive codes were based on organizational theory, such as "street level bureaucracy" (Lipsky, 1980). The main components of this theoretical school is the importance of top-down support, incentives, mismatched expectations and success measurements, deferred discretion, limited resources, and perception of "clients." Inductive coding was used to capture the unique aspects of the Hero Help program and officer-initiated thoughts on improvements and increasing officer engagement. The below quotes will be denoted only by participant ID number to protect confidentiality which could be breached by sex, police role, or age due to the small sample size and familiarity throughout the police department.

Results—Influence of Higher Management

The most crucial and widespread theme that emerged from the interview data was the **influence that higher management had on socializing the department to engage with Hero Help and normalizing this type of police work**. While there was a contrast between the idea of addiction assistance as "not my job" and "just part of the job" – all participants believed that **because addiction assistance was a top-down priority, it was more likely to succeed**. One officer (005), when asked about why s/he thinks that the NCCPD is ahead of other departments in terms of addiction assistance said that it came down to the "overall mentality on how we should be as police officers" which "definitely comes from upstairs [*management*]." When asked how management specifically influenced this "overall mentality" and addiction assistance, the officer said:

> "'Cause if it's up to-- I mean, police officers don't like change. They never like change, so if they were just here to supervise, you know, sergeant saying, "Hey, do this program." It [*the department*], probably, wouldn't [*be*] that receptive, but - because it becomes like an overall mentality of the department [*due to upper management*], it's-it's a lot better, **it goes through to people a lot easier.**"
>
> – 005 (emphasis added)

Importantly, not only did majors and corporals play a role in police engagement, but also the **enthusiasm of the squad lieutenants**. While officers did not seem dissuaded if their lieutenant was not overly enthusiastic about the program, those officers who had lieutenants that were highly dedicated to the program were more motivated to use Hero Help. An officer explains this role of lieutenants in keeping the Hero Help program on their mind throughout their daily interactions:

> "...obviously it would persuade the people that work underneath [*the lieutenants*]. 'Cause obviously **if they're not for the program or, you know, just don't care about it they're not going to talk to their people about it.** [...] ...if you don't have someone that's telling you about the program and "Hey, you know, let's make sure we-we're doing this." If we run into anybody, **if they're not talking about it at all then the people under you are-aren't thinking about the program and not realizing that it's always there and available.**"

This theme of regarding the role of management as highly influential in the success of the program was seen within 113 coded segments across all 10 participant interviews. These coded segments appeared in the larger category of "Influence of Management" and the subcategories of "Normalization/Socialization," "Dedicated Resources," and "Squad Differences." These codes represent the ideals of top-down prioritization, dedication of management to the ideal of addiction assistance, respect of wider department priorities, acknowledging the investment that was made into the program, and the secondary influence of direct supervisors and lieutenants in engaging with the program.

Reasons to Use Hero Help

The officers cited various reasons that they support and choose to be involved in the Hero Help program, albeit to varying levels of participation. The most mentioned reasons for using Hero Help were that it was believed to be "part of the job," was perceived to be efficient and successful, officers felt familiar and comfortable with the program, they believed in the Hero Help Staff, received verbal reinforcement, and participation related to personal qualities of the officer, such as agreeing with the mission of Hero Help or having had experience with addiction in their own families or friends. Below are excerpts from the interviews that highlights each of these themes of why officers participated in Hero Help or why they perceived other officers to be involved in Hero Help.

Reasons for Utilizing Hero Help as Stated by Police Officers	
Part of the Job	● "I mean, I think at the end of the day it's our job to be out here and advocate for people. So, like, I mean, like I said, I know about the program and often I can explain to people what it is, and I know the resources I give them. So to me it doesn't- My incentive is not to see you overdose tomorrow." (010) ● "So when we go to like an overdose […] we will tell them about the Hero Help program […] I would say, it's pretty regular to actually mention it to someone, um, and see if they're interested or why not." (004)
Efficient/ Successful	● "If it reduces the crime, then obviously, it's beneficial to everyone. It's beneficial to us [*because*] less workload. Main thing is, it's beneficial to citizens, because now they're not being victimized. But then our department is definitely for-for the program. […]And, you know, I-I believe it helps." (002) ● "…If you arrest them, what's gonna happen? They're gonna come back out in the street and they're gonna do it all over again. Um, I feel like with helping them it's more-- there's more of a chance-that it won't happen again. You know arresting them, uh, doesn't really count as much." (003)
Familiar/ Comfortable with Program	● "But I'm telling you, once you do it once, you'll see how easy it is. It's not extra work. It's not hard at all. Um, so it's probably unawareness and then inexperienced doing it so they [*uninvolved officers*] don't want to try it." (005) ● "I think the biggest thing is explaining to everybody exactly how it works so [*they have*] knowledge of how it works […] and I think, uh, you know, people who may not be interested probably, they just probably don't know about it." (008)

Belief in HHP Staff	● "It kind of makes it worthwhile putting people into the program, 'cause they're-you know, case workers are people you can trust. Like they're-they're doing their job and they want to do their job, so they like, you know, do it really well." (005)
Verbal Reinforcement	● "I mean, because, like, some people just seem to enjoy doing it, which is great. And those people seem to do it. But even, like, shout outs from command staff like a little, like, memo - or something, you know, just to say like, "Hey, we recognize that you did this. Like, good job." (007) ● "Maybe, uh, a couple emails saying- just thanking us, 'Hey, you guys did great last month. We had three people going to the program, two of which are still in-in house treatment.'" (006)
Personal Qualities/ Experiences	● "I mean, I do know that there are personally a lot more people involved in the program because of, you know, the way they look at things or stuff that they've dealt with in their personal life which is great. You know, you have people that are going to be more involved in it and that's awesome." (002) ● "I don't know 'cause I feel like we're- it's such a sensitive subject they shouldn't be incentive-driven. I mean, it's just the right thing to do." (006)

Indifference, Resistance, and Ways to Mitigate This

Overall, participants agreed with the mission and purpose of Hero Help, although utilization of the program and the perception of whether or not it was their responsibility to engage with the program varied. Below are some of the stated reasons for perceiving addiction assistance as "not my job." For purposes of confidentiality, examples will be paraphrased and summarized. Some of these thoughts are directly about the officer speaking, others are their gauge of why other officers do not participate.

Reasons for Not Utilizing Hero Help as Stated by Police Officers	
Traditional Values/ Ideology	● The idea of minimizing the role of in lieu of arrest when trying to engage officers with Hero Help (003) ● Belief that addiction is a choice, not a disease; others may be harboring a "hatred" for addiction (006) ● A crime is a crime, which warrants arrest; I don't make the rules, I just enforce them (008) ● Personal preference of "catching bad guys" versus helping; not "that kind of cop;" the core of resistance is this type of ideology which is difficult to change (002)
Increasing an Already Full Workload / Inconvenient	● Spending time enrolling individuals into the program, not having them present for treatment, and then having to go back and process arrests and find them again (007) ● Not receiving more pay than other departments who provide less services and are less busy (006) ● Dropping people off at detox is time-consuming or inconvenient (004)
Being a Part of a Specialized Unit	● When undercover, cannot interact with people the same way as uniformed officers (008) ● Potential issues with losing confidential informants to Hero Help because they provide a crucial service to undercover officers (007) ● Certain police roles have less contact with the community (001)

Not Wanting to Follow-Up with People They Enroll	● Speaking for themselves or from their perceptions of other officers resistance to enroll participants into Hero Help: 　○ 009 　○ 004 　○ 002 　○ 005
Unfamiliarity/ Discomfort Discussing Hero Help with Individuals	● Someone who was very involved discussed how people who are not familiar with the program hope individuals just say no when offered due to unfamiliarity/discomfort (005) ● This theme is paired with the idea that there is a disconnect between officer perception of the program and reality (e.g. time commitment, protocols, etc.)
Emotional Distance	● Addiction is out of his/her control (008) ● Not wanting to try to enroll people after previous attempts did not work out (007) ● Not wanting to get too involved with the "emotional rollercoaster" that heroin is for families and users. Will follow-up, but does not want to be too invested in the outcome. Wants to do job, but can't get too involved in the addicted person's success or would be stressed out and depressed all the time. (005)
Not being Qualified in Treatment Services or a Social Worker	● Believes it is "social work" and the job of the Department of Corrections, the courts, and rehabilitation centers' role – not the police (009) ● Not having personal experience with addiction to relate with individuals on that level (004) ● Not being trained in addiction (010)

Ways to Mitigate these Issues
   Addressing Officer Awareness and Misconceptions

There appeared to be a mismatch between perception of the program and the reality of the program. The first example pertains to the performance measure, similar to that of the arrest or citation statistics. Some officers were aware that their efforts in engaging with Hero Help were acknowledged via a statistic, while others were not. Receiving a statistic for Hero Help involvement appeared to be a motivating factor for many of the officers interviewed or, when unaware of the existing measurement, at least perceived to be a good idea. One officer brought up that police "officers work off incentives, [*we*] like rewards" and one obvious incentive is receiving a positive work performance measure through a Hero Help statistic. However, the officers who were unaware that there was a measurement counting Hero Help enrollments were not benefitting from this incentivization. Moreover, some officers discussed that it was difficult to choose enrolling someone in Hero Help and losing out on the arrest or citation statistics. Below, this unawareness is highlighted when one officer was asked whether or not a statistic would make a difference in officer involvement:

"Interviewer: Mm-hmm. And do you think that the policy that offers in lieu of arrest as a
statistic for officers makes a difference?
Participant: **Does it, uh, count as statistic?**

Interviewer: Mm-hmm.

Participant: **What is the statistic?** [crosstalk] All right, that would be-- I was actually-- And I mentioned that a lot of the lazy officers I was in discussing before … . **So yeah, like, I think-I think that's a good policy**."

<div align="right">- 006 (emphasis added)</div>

Another misconception was the amount of time and follow-up that would be needed if an officer were to enroll someone into Hero Help. During roll call or Hero Help trainings it should be reiterated that the process of enrolling someone is quite quick. As one officer (005) puts it, "its like two pieces of paper and like a three-line report, it's very easy." Additionally, there is a dedicated staff that follows-up with participants. Officers that were not heavily involved in the program cited that they did not want to have to follow-up with individuals once they were enrolled. However, an officer explains that the need to follow-up has decreased since the Hero Help civilian staff has expanded. **This sentiment of little officer responsibility following enrollment should be highlighted.**

"Normally, even if they leave the program you're not really notified. So I mean sometimes **you'll get an email but you don't have to do anything about it unless you really want to**. Um, but I think on that end too, that was more at the beginning. And I think now when people leave the program, the **Hero Help program coordinators actually reach out to them for us**. … Yeah, they do do a lot of followup with everybody. Yeah. So that has even **taken off our plates**. So there's really **no reason not to do the program or to sign people up**."

<div align="right">- 005 (emphasis added)</div>

Other than closing the gap between expectation and reality using training and officer awareness, another tactic that could alter negative or resistant perceptions of officers about Hero Help would be to **systematically include non-involved officers in outreach events or enrollment processes.** This idea was brought up by the officers themselves in multiple interview sessions. This would 1) show officers the true time commitment involved, which is likely less than they anticipated and 2) humanize the process more and offer a firsthand experience in how the Hero Help staff operates in assisting people in need. While officers who were involved in Hero Help said that being included in outreach events or enrollment processes helped them gain a positive view of the program, staff, and mission; even an officer who was not keen on the program said his perception changed positively after attending an outreach event. While this may not increase program utilization for him/her specifically, it did decrease negative attention around the program that could enable other officers to engage more freely. Additionally, seeing the positive effects the program has had on individuals in need of help can be motivating in and of itself. Below, an officer explains that working firsthand with individuals about Hero Help was more influential than being told about it by a supervisor:

"…So, um, **me offering it to people, I feel like that's what kind of made me believe in the program more.** You know what I mean? So, I mean, every supervisor says it, um, in giving out stats and everything, sure, that's- it's nice and everything, **but seeing it firsthand, that's what- that's what makes a difference, you know**."

<div align="right">- 003 (emphasis added)</div>

One officer, who had initially been wary of the Hero Help program, discussed his/her thoughts on how going out on an outreach influenced their perspective, ultimately for the better:

"…Now that, you know, **I have the greater perspective, not to say that I really bashed the program when it started because I was just skeptical, but now I see the success of it**, so, you know, I can, if someone asked

me, like, **now I'm in this position you know, so I can say, "Hey, I see the success in it. I think it is a great program."** Um, but like I said, it's just not my cup of tea. But if I have the opportunity to push it, um, you know, I'm gonna use that opportunity because I hope--hopefully it does save, not only that person themselves, but I've seen what it does to the families more than that one person."

- 002 (emphasis added)

Another popular suggestion from the police officers was to **have Hero Help participants share positive stories with the police to highlight how the program worked for them and changed their life positively**. This was suggested mainly for two reasons. First, it would showcase the efficacy of the program, increasing the police's perception that the program actually works and would be a valuable use of their time. Second, it could overcome some of the personal negative experiences some officers have had in enrolling individuals who appeared to not take the program seriously. These negative experiences often tainted the officers' idea of the program, citing it as a way for people to get "let off" or "a way out of handcuffs." Being able to see the positive impact on other participants may help to mitigate these negative experiences. For example, the officer below shared that his/her resistance to the program changed after hearing other people's successes, despite the negative experience s/he dealt with.

"I-I definitely think that there's a value to the program. Um, it-it-it's just like, "How do you know who really needs it and who really wants to-to use it to get better and who is just using it to not be under arrest?" Do you know what I mean? Um, I can say that **I personally have not dealt with anybody that entered the program that got clean and became successful** with the rest of their life. I know it's new so that-that definitely could change. Um, **I'm definitely more receptive to it. Because I've heard other people have had, like, you know, success stories.**"

- 007 (emphasis added)

Another officer talks about how s/he has never heard from anyone who has gone through Hero Help, but would like to hear particularly from people who have done Hero Help to see how it has helped them.

"Um, so I think, you know, **hearing stuff like that** *[from people who have gone through Hero Help]*, **and maybe hearing that it was beneficial** because like [*the*] police officer chose to, you know, put them through the treatment versus arresting them. I think hearing something like that would kind of let me, people, know … they're not just saying they're gonna go with it just to leave [*treatment*] or whatever. Um, so I think something like **that is probably the best way for people to kind of view it and-- for more people to view it in a positive light**, I would say."

- 004 (emphasis added)

Finally, an officer mentions that hearing from participants of Hero Help would not only increase morale towards the program, but also could be a way to learn of improvements that could be made to make the program even more helpful and effective for those who enroll.

"You know, if they **could actually talk with people that have fully completed the program and see that it is possible** from someone else, then that would, "Hey, I was in this program. I did it from the start to finish and, and it's really helped me and these are, you know, **the benefits that I got out of it**" or, you know, **even them giving back to, "Hey, maybe you could change this,"** I mean, **perspective from people that have done the program want ways to change it also**.

- 002 (emphases added)

The **most challenging barrier will likely be ideological resistance to the idea of addiction assistance**. Due to the personal quality of experiences, mentality, and values, overcoming this type of lack of motivation to use the program will require incentives, supervisor-driven solutions, and changed perceptions, some such strategies have been identified above. A summary of these recommendations, drawn from the interview sessions with the police officers, is summarized below:

I.   A success measure that tracks utilization of the program, similar to other tracked statistics (and officers made aware of existing performance measure)
II. Shared success stories from participants during roll call
III. Including those who are not currently involved in the Hero Help process and events (i.e. outreach, signing people up, paperwork)
IV. A fact sheet that lays out police officer responsibility and performance measures (i.e. time commitment in minutes/hours; if follow-up is expected and when; performance statistic; paperwork involved and time to complete, etc.)
V.   Data updates on the efficacy of the program
VI. In-house competition (informal and lighthearted)
VII. Positive verbal reinforcement and encouragement
VIII. Continued in-house marketing of incentives, awareness campaigns, and training

Part II: Hero Help by the Numbers

Sample

The data used in this analysis is primary data collected from NCCPD via Hero Help case notes, treatment information gathered from ROIs, and administrative data collected during the Hero Help enrollment process. The data represents the time period of May 2016 to early November of 2019. The information gathered included, age, sex, race, treatment episodes (admission, discharge, discharge status), most recent enrollment and discharge date from Hero Help, quarter of enrollment, naloxone training, engaged via outreach, enrollment type (walk-in, police-informal, in lieu of arrest), legal status at admission, and other pertinent information related to case management.

Background and Demographics

Hero Help has enrolled 373 participants as of early November 2019. Of those participants, 87 have been re-enrolled, totaling 119 re-enrollments since the inception of Hero Help. This equates to about 1 in every 4 participants re-enrolling into the program. Hero Help had 1 in 4 of all enrollees either actively involved in case management and/or have had reached their 6th month of recovery. About one-third of all participants have been engaged through outreach efforts and 4% were engaged through targeted prostitution operations. Over the span of Hero Help, staff have connected participants to over 900 treatment episodes, with the average number of treatments per participant equating to 2.5. The maximum amount of treatment episodes per person so far was 15. Just under 30% of participants enter the program with a pending charge and approximately three-fifths of participants avoid re-arrest within one year of enrolling.

Number and Type of Substances Used by Participants (n = 48)	
Number of Substances	
1	50%
2	31%
3	15%
5	4%
Single	
Heroin	69%
Crack or Cocaine	25%
Marijuana	21%
Prescription Drugs	17%
ETOH	17%
Methamphetamines	15%
Fentanyl	8%
Benzos	4%
PCP	2%
Most Common Pairings	
Heroin and Crack/Cocaine	17%
Heroin and Marijuana	17%
Heroin and Methamphetamine	10%
Heroin and Prescription Drugs	8%
Crack/Cocaine and Methamphetamine	8%
Crack/Cocaine and Marijuana	8%
Marijuana and Methamphetamine	8%

The average Hero Help participant was male, White, aged 36, used heroin, and was enrolled informally by police. The tables in this section are more detailed breakdowns of the demographic make-up of the Hero Help participants and substances of choice.

Background of Hero Help Participants (n=373)	
Race	
White	84%
Black	11%
Hispanic	4%
Native Am.	.27%
Sex	
Male	55%
Female	45%
Age	Range: 20-69 Average: 36

Type of Enrollment into Hero Help	
Self-Present to Detox	32%
Self-Present to NCCPD HQ	11%
Self-Present to Hospital	2%
Police – Informal Referral	43%
Police – In Lieu of Arrest	13%

Outreach Efforts

The Hero Help Outreach team has conducted 315 outreach events between January and November of 2019. These outreach events are informed by the 911 calls for service of reported overdoses, as well as outreach informed by officer recommendations, repeated outreach, and outreach conducted by other means. Of the 445 calls for non-fatal overdoses, the HHP outreach team has reached or attempted to reach 1 out of every 2 non-fatal overdose 911 calls. On average, the outreach team reaches these non-fatal overdose victims in less than two weeks (12 days) from the 911 call. Overall, about 1 in 5 of those visited during outreach will enroll in Hero Help. In addition to enrolling individuals in Hero Help, the outreach team has also made 55 other referrals for individuals they come in contact with which could be family, friends, or concerned community members. These services included treatment, counseling, Victim Services, and Mental Health Court.

Outreach was able to be increased over the course of the grant, most noticeably from Quarter 2 to Quarter 3. This is unsurprising as the grant started towards the end of April and increased staffing and resources. The decrease in Quarter 4 was not unexpected due to the increased meetings related to new grant funding, solidifying new partnerships with other jurisdictions, planning the holiday event, as well as decreased staff support. The data analyst position decreased from 25 hours per week to 5 and the case

	Q1	Q2	Q3	Q4
Quarter Total	63	78	125	49
Avg./Month	21	26	42	24.5

manager was transitioning off of Hero Help. Even though numbers did not increase in Quarter 4 due to the above challenges, the average number of outreach still outpaced Quarter 1 and was just about on par with Quarter 2.

During July of 2019, analyses were done to shed light on where outreach effort should be focused based on the areas that had the most calls for service for overdoses. According to this analysis, zip codes with the most NFO calls for service were 19702 (13%), 19720 (13%), 19805 (10%), and 19808 (9%). When looking at outreach to NFO calls for service, the Outreach Team spends 13% of outreach efforts in 19702, 15% in 19720, 8% in 19805, and 10% in 19808. This shows that the outreach efforts are matching needs in these at-risk communities well.

In addition to outreach, and as part of the mission of Hero Help, personnel are dedicated in equipping others in accessing harm reduction and life saving measures. Therefore, the outreach team was trained to provide individuals with naloxone kits for independent use. From January 2019 through early October 2019, there were 123 individuals trained in the safe use and storage of naloxone, 124 naloxone kits distributed, and 80 trainings conducted. NCCPD is currently in the process of applying to be a public provider of naloxone which would increase their access to naloxone kits for increased training and distribution.

Trauma, Barriers, and Challenges

The following data was collected through Hero Help staff. This information was gathered through the intake questionnaire that was conducted with new incoming participants. This was a new initiative that began once the case manager was hired in approximately May of 2019. The number of individuals represented by this data is 48.

According to the intake questionnaire, about 60% of the Hero Help participants experienced past trauma. This includes physical, emotional/mental, and sexual trauma. The most common form of trauma was emotional/mental (52%). This was followed by physical trauma (33%) and sexual trauma (27%). While both men and women experienced various forms of trauma, the women were more likely to have trauma in their history according to the chi^2 test of significance (p < .026).

In addition to traumatic experiences, participants also identified a number of salient barriers to attending and staying in treatment. Some of the most common of these barriers included transportation, finances, legal issues, mental health, and housing. See the tables to the right for a detailed breakdown of these barriers. Of all the participants, only 10% claimed to not having any barriers in place to attending or staying in treatment. Therefore, case managers and other individuals who interact with the

Number of Barriers Per Participant	
0	10%
1	29%
2	33%
3	12%
4	6%
5	4%
7	4%

Barriers to Treatment	
Transportation	23 (48%)
Finances	20 (42%)
Legal Issues	16 (33%)
Mental Health	12 (25%0
Housing	11 (23)
Physical Health	5 (10%)
Food	3 (6%)
Utilities	3 (6%)
Other	3 (6%)
Work Schedule	1 (2%)
Insurance	1 (2%)
Unspecified	1 (2%)
Childcare	2 (4%)
Clothing	2 (4%)
Safety	1 (2%)

participants should be cognizant of the various external forces that need to be considered when making treatment plans, or when faced with lack of compliance.

Multivariate Analysis

The following analysis highlights significant differences between those who were active in treatment, reached 6 months of recovery or more, and discharged due to non-compliance based on a number of key variables. These independent variables include demographic information (sex, age, race) and substantive information such as number of treatment episodes, whether they self-presented or were police referred, number of re-enrollments into Hero Help, legal status at admission, and if they were engaged through outreach.

At the bivariate level, only the number of treatment episodes a person underwent during Hero Help showed any type of significant relationship to their enrollment status at the end of the grant. However, once more variables were introduced and controlled for at the multivariate level, a number of other variables showed importance when distinguishing between those who remained in treatment or were in recovery for 6 months or longer compared to those who were discharged for non-compliance. The other categories (pending review, voluntarily discharged, and deceased) were dropped due to low numbers in each category. The results of this analysis can be found in the table below.

Multinomial Logistic Regression of Hero Help Participants: Differences Between Program Outcomes

	Active in Treatment	6 Months Recovery or More
Female	1.98 (.69)*	1.13 (.42)
Race (White and Non-White)	2.11 (.87)	1.08 (.52)
Age	1.02 (.02)	1.05 (.02)**
Treatment Episodes	1.22 (.13)	1.72 (.19)***
Enrollment Type		
Self-Present	1.32 (.71)	1.14 (.69)
Police - Informal	1.42 (.79)	1.27 (.79)
# of Re-enrollments	1.03 (.30)	0.37 (.18)**
Legal Status at Admission	1.92 (.72)	0.76 (.34)
Outreach prior to Enrolling	0.56 (.21)	0.70 (.03)

Notes. Reference group: "Discharged - Non Compliant." Reported Adjusted Odds Ratio (std. error)
Log Likelihood: -240.8; LR chi-square: .00
n = 329
Significance level: * $p < .05$; ** $p < .005$; *** $p < .000$

Key Differences of those Active in Treatment and in Recovery compared to Discharged Folk

Compared to males, females had 98% higher odds of being active in treatment rather than being discharged. However, sex was insignificant when comparing those who were discharged and those who reached recovery. Other variables distinguished these two groups. Those who were older had 5% higher odds of reaching recovery and those who received more treatment episodes had 72% higher odds of reaching recovery rather than being discharged. Finally, those who had increased numbers of re-enrollment had lower odds of being in sustained recovery rather than being discharged. This could be due to their enrollment status more frequently changing between active and discharged and not accumulating the time needed to reach sustained recovery. Due to the fluctuating nature of relapse and recovery and the correspondence of these factors on discharging and re-enrolling in treatment, this finding should be taken with caution.

Informed Case Management

Compared to those who were discharged, those in treatment or in recovery were more likely to be female, older, have participated in more treatment episodes, and had fewer re-enrollments. By focusing on **increasing treatment participation, continuation of care, and warm hand-offs,** treatment can be more fluid, allowing for more treatment stays per person. This requires **efficient and dedicated communication between not only the case managers and participants, but also treatment staff and case management. Avoiding long wait lists and delayed notice of discharges can impede such efforts.** This requires that treatment staff be able to quickly inform Hero Help staff when individuals are discharged from their facility, either successfully or unsuccessfully. Additionally, it appeared that males are less likely to be in the treatment group than the discharged group and that younger folk are less likely to be in the recovery group than the discharged group, Hero Help staff should take note of these populations as more at risk or in need of more case management/involvement.

On the flip side, there is no significant difference in success outcomes based on enrollment type or legal status at admission. This should encourage officers that enrolling participants informally or in lieu of arrest has similar outcomes as to when individuals self-present for treatment. Some officers were under the impression that enrolling individuals in Hero Help was "a way out of handcuffs," however, these results show that whether someone self-presents or is enrolled by an officer, there are similar odds that they will be active in treatment or reach 6 months of recovery. Finally, this analysis shows that whether or not someone has pending charges does not affect their odds of being in either the treatment, recovery, or discharged group. Therefore, those who have pending charges should not be ineligible for Hero Help and should not be viewed as problematic.

Part III: Summary of Recommendations Based on Data
How to Replicate Successfully – Drawn from Interview Data

Other police departments and jurisdictions need to adopt the overall mentality of addiction assistance as a community service and a *better* approach to substance use and at-risk populations. Most crucial is for this mentality to be adopted by highest management and have it trickled down throughout the department. Due to personal experiences of officers affecting their willingness to engage, having success measures related to addiction assistance and bureaucratic incentives will prove important to engage officers who are ideologically resistant to addiction assistance. These incentives include having a

statistic-related measure for enrolling individuals into addiction assistance (i.e. similar to other statistics used for job performance such as arrest or citations), positive reinforcement from supervisors and command staff, and engaging in lighthearted in-house competitions. Officers who are not involved in such efforts should be systematically included in various events, such as outreach, shadowing someone who is enrolling a participant, and completing the paperwork. This could mitigate the negative perceptions of the program as either not helpful or too time consuming. Additionally, success stories of participants should be shared regularly with officers to improve morale.

Improvements to Program/Police Involvement

To improve and increase police engagement with addiction assistance, officers suggested being updated with data driven results (e.g. how many people are enrolled, reached sustained recovery, etc.), hearing about specific success stories from the participants themselves, and involving officers in active calls and events to expose them firsthand to the mission and impact of the program. As the results stated, perceptions of the program often changed positively after engaging in outreach events, doing the paperwork and realizing the simplicity of it, and viewing the program as actually "successful." Therefore, exposing officers who are most resistant may achieve changed perceptions which could positively influence officer engagement or at least promote positive perceptions of the program.

Where to focus efforts

According to the intake surveys, it appears that heroin and crack/cocaine are the most common substances in this population. In addition, these two substances are also the most likely to be used in conjunction. While much attention is being focused on the opioid epidemic, case managers and addiction staff should stay informed on polysubstance use, as well as the potential different needs of those who use "downers" (i.e. heroin) and "uppers" (i.e. cocaine/crack). Further, addiction often is a symptom of underlying self-soothing or compulsive behavior. Focusing on each individuals' motivation for use rather than the substance of choice could also be beneficial for individualized care.

Those in the program also have a range of barriers to treatment with the most salient being transportation. Hero Help is well equipped to assist with primary transportation to treatment or detox; however, to increase sustainability and improve participant outcomes, transportation is a significant need that needs to be addressed. In addition, trauma-informed care is essential in the population of people with addictions, as many have such a history – as was shown in this sample. It was also shown that younger folk and men were more likely to be in the discharged group than the recovery group. Giving this population more attention as to what they need to stay motivated and involved could be beneficial, while not decreasing attention on the older folk and females.

Finally, there had been a push for improved case management, as well as improved communication from treatment providers. This had been an ongoing challenge throughout the Hero Help program. Much of the time of the Hero Help staff went into obtaining treatment report updates from treatment providers, despite various attempts to try more accommodating processes for receiving updates. This decreases time available for active case management and outreach. Talking with providers about how to make treatment updates more convenient and efficient for them would be a valuable use of time for future data analysts or similar positions. Additionally, hiring a full-time case manager would prove to be beneficial for all involved.

Next Steps

The New Castle County Police Department has plans to partner with other jurisdictions in Delaware to promote police-led addiction assistance. The framework of these future partnerships would have NCCPD supporting smaller departments who cannot provide in-house case management for those in need of addiction and mental health services. Support provided by NCCPD would include case management, staff, and expertise while the role of the smaller departments would be to actively refer individuals who were eligible and in need of addiction and/or mental health services to NCCPD Hero Help. One such partnership currently in the works is that of NCCPD and Middletown PD.

In addition to police department partnerships, Hero Help had also improved their relationships with treatment providers, addiction and mental health services, and grassroots organizations. These partnerships stemmed from improving the communication between case managers and treatment providers. In order to make such improvements, the Hero Help team increased their face-to-face meeting times with these groups to offer training and build rapport. This had increased referrals from these organizations, such as Project New Start, Community SOS, Project Engage, atTAcK addiction. Additionally, referrals were increased from treatment providers such as Gaudenzia and The Refuge, as well as referrals from Probation and Parole. In order to make these expansion efforts both successful and efficient, **sustaining and increasing the amount of qualified staff in the Hero Help program and resources is essential.**

Value of Hiring a Data Analyst

The Hero Help program is currently coordinated by a small staff, many of whom have various roles in the police department. By hiring a dedicated data analyst, this frees up the time of the current staff to focus efforts on community engagement, participant follow-up, and quality service – all of which are the cornerstones of Hero Help. Additionally, by having a data analyst, numbers are tracked and are able to inform the efforts of the Hero Help staff using evidence-based recommendations. Importantly, through the police-informed recommendations, many officers would like to be more informed on data-informed statistics on the program to witness the success of the program. This was stated as one of the top ways to improve officer engagement and trust in the program. Therefore, the benefits of having a data analyst are as follows:

I.   Ability to track quality data
II.   Provides data products that will:
   a.   Inform evidence-based efforts
   b.   Improve police engagement and trust in the program
   c.   Leverage future funding
III.   Allows current staff to have more time to reach at-risk individuals through outreach
   a.   Leads data-driven outreach efforts
IV.   Assist with grant writing to secure needed funds
V.   Identify areas of improvement and investigate solutions