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"EXCHANGE NORTHERN KY": AN EVIDENCE-BASED NEEDLE & SYRINGE EXCHANGE PROGRAM SERVING THE NORTHERN KENTUCKY AREA DEVELOPMENT DISTRICT

Amanda Hunter
University of Kentucky, ahu242@g.uky.edu

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Amanda Hunter, Student

Corrine Williams, ScD, MS, Committee Chair

Corrine Williams, ScD, MS, Director of Graduate Studies

“EXCHANGE NORTHERN KY”: AN EVIDENCE-BASED NEEDLE & SYRINGE
EXCHANGE PROGRAM SERVING THE NORTHERN KENTUCKY AREA
DEVELOPMENT DISTRICT

Amanda Hunter

A capstone thesis submitted to the faculty at the University of Kentucky in partial fulfillment of the requirements for the degree of Master of Public Health in the Health Behavior concentration in the College of Public Health.

Lexington, KY
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ABSTRACT

Amanda Hunter

“Exchange Northern KY”: An Evidence-Based Needle & Syringe Exchange Program Serving the Northern Kentucky Area Development District

Intravenous drug users (IDUs) account for nearly 16% of new HIV infections in the United States and almost one half (48%) of newly reported acute hepatitis C virus (HCV) infections have been found to be IDU related.¹ Within the Northern Kentucky Area Development District, hepatitis C infections have soared with an incidence of more than 1,000 newly reported cases during 2015 alone.⁴ Rigorous scientific evidence compiled by the U.S. Department of Health & Human Services has indicated that one of the most unique and effective strategies for the curtailing HIV incidence among IDUs is by ensuring users’ access to sterile injection equipment, as part of a well-designed and implemented HIV prevention strategy.⁸ The intervention adapted and proposed by the Northern Kentucky Health Department (NKHD) aims to provide IDUs within the Northern Kentucky Area Development District with a mobile needle exchange program entitled “Exchange Northern KY,” designed to provide the safe disposal of used needles and syringes for IDUs, supply clean needles to lessen the possibility of HCV infection through shared needles, and assist IDUs with finding treatment and social services with which they may not be currently familiar, as part of a larger community HCV prevention and substance abuse strategy. Resulting health impacts are aimed to primarily include an increase in public knowledge about the services provided by “Exchange Northern KY” to the community, and in long-term outcome goals, a 5% reduction in hepatitis C incidence after three years of program implementation.

“Exchange Northern KY”: An Evidence-Based Needle & Syringe Exchange Program Serving the Northern Kentucky Area Development District

I. TARGET POPULATION & NEED

Intravenous drug users (IDUs) account for nearly 16% of new HIV infections in the United States and almost one half (48%) of newly reported acute hepatitis C virus (HCV) infections have been found to be IDU related.¹ In fact, of new cases of HCV reported to the Centers for Disease Control (CDC) between 2014 and 2016, injection drug use is the most commonly identified risk factor.² Estimates from the National Institute on Drug Abuse suggest that the number of current IDUs in the U.S. ranges from 1.1 to 1.9 million people, with more than 3.2 million reported to have injected drugs at some point in their lives,³ placing a huge portion of the population at risk for associated blood-borne diseases, including hepatitis C and HIV. Given HCV is transmitted more easily than HIV, as it is present in high concentrations within the blood of infected persons, and readily transmitted after exposure to blood-contaminated needles, rampant intravenous drug use poses a particular problem in the rising incidence of HCV.²

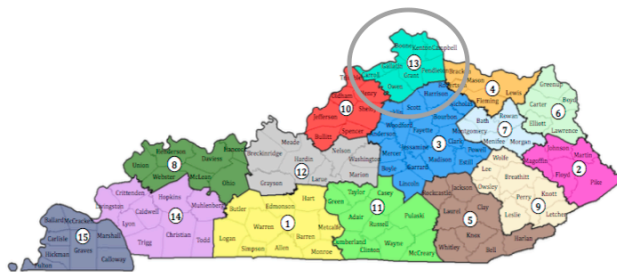


Figure 1.
Map of Kentucky Area
Development Districts—
Northern Kentucky Area
Development District is circled.

*Image: BRFSS Kentucky Area
Development District (ADD)
Profiles*

Within the Northern Kentucky Area Development District (encompassing Boone, Kenton, Campbell, Carroll, Gallatin, Owen, Grant, and Pendleton counties; and highlighted in *Figure 1*) hepatitis C infections have soared with an incidence of more

than 1,000 newly reported cases during 2015 alone.⁴ These reports of climbing cases of HCV are not new—Northern Kentucky has reported the region’s rate of new infections at nearly 10 times the national average, and almost triple that of the rest of the Kentucky, according to data compiled between 2010 and 2014 by the Centers for Disease Control (CDC).⁵ In 2011, the Northern Kentucky Area Development District had 9.5 reported cases per 100,000 population, whereas the rest of the Commonwealth reported only 3 reported cases per 100,000 population.⁴ Further, compared against nationally reported cases of hepatitis C, Kentucky has topped every state in the nation and has consistently reported 6.83 times the national average or higher since 2010, based on U.S. Surveillance Data for Viral Hepatitis (displayed in *Table 1*).⁷

Table 1. Selected reported cases of acute hepatitis C, nationally and by state — United States, 2010-2013

State	2010		2011		2012		2013	
	Rate	(No.)	Rate	(No.)	Rate	(No.)	Rate	(No.)
Florida	0.3	(56)	0.3	(64)	0.6	(107)	0.7	(134)
Indiana	0.4	(27)	1.3	(84)	1.7	(110)	2.7	(175)
Kentucky	2.5	(109)	3.2	(142)	4.1	(178)	5.1	(226)
Maine	0.2	(2)	0.9	(12)	0.6	(8)	0.6	(8)
Massachusetts	0.2	(13)	0.3	(23)	0.6	(37)	2.6	(174)
Nebraska	0.1	(2)	0.1	(2)	0.2	(3)	0.1	(2)
Nevada	0.3	(7)	0.4	(10)	0.4	(12)	0.3	(9)
New York	0.3	(50)	0.3	(52)	0.5	(93)	0.7	(131)
North Dakota	0	(0)	0	(0)	0	0	0.6	(4)
Vermont	0.3	(2)	1.0	(6)	1	(6)	0.5	(3)
Total	0.3	(850)	0.4	(1,229)	0.6	(1,778)	0.7	(2,138)

*Rate per 100,000 populations.

U=No data available for reporting.

Source: CDC, National Notifiable Diseases Surveillance System.

Rigorous scientific evidence compiled by Dr. David Satcher at the U.S. Department of Health & Human Services has indicated that one of the most unique and effective strategies for the curtailing HIV incidence among IDUs is by ensuring users' access to sterile injection equipment, as part of a well-designed and implemented HIV prevention strategy and a bridge to drug abuse treatment, with the additional positive benefit of significant reductions in HCV incidence.⁸ This data also suggests that the presence of a needle exchange program within the community does not increase illegal drug use among participants in the program, and in many cases has reported a decrease in injection frequency among those attending programs.⁸ Citizens in Northern Kentucky have limited options for needle exchange, as the closest programs are run out of Cincinnati, Ohio, and Lexington, Kentucky, both a considerable distance from their homes and places of work (on average, 50 miles or more away), therefore rendering current public health efforts in HCV prevention unsuccessful in attempts to reach this vulnerable population of IDUs. According to the Kentucky Needs Assessment Project Brief Report regarding IV Drug Use among Kentucky Adults, the total population of the Northern Kentucky Area Development District is around 452,000 people, of whom an estimated 0.9% are IDUs (putting estimates around 4,064 users within the target region).⁹ With over a quarter needles returned to exchange programs across the country reportedly testing positive for HCV or HIV, the need for safe disposal and exchange within the area is crucial.⁸

The intervention adapted and proposed by the Northern Kentucky Health Department (NKHD) aims to provide IDUs within the Northern Kentucky Area Development District with a mobile needle exchange program entitled "Exchange

Northern KY,” designed to provide the safe disposal of used needles and syringes for IDUs, supply clean needles to lessen the possibility of HCV infection through shared needles, and assist IDUs with finding treatment and social services with which they may not be currently familiar, as part of a larger community HCV prevention and substance abuse strategy. These evidence-based efforts have consistently been shown to impact trends in HIV incidence by providing those who cannot quit with sterile injection equipment, as well as connecting IDUs with social services that help align public health efforts with users’ personal values and goals for optimal program success in line with the Transtheoretical Stages of Change Model introduced by Prochaska in the late 1970s.¹⁰ As such, these evidence-based efforts have been adapted by the grant application organization to combat the mounting incidence of HCV within the Northern Kentucky Area Development District, with a secondary outcome of HIV prevention.

As IDUs are not a homogenous population, but rather communities of users often serve as a bridge across otherwise distinct populations and impact the infection rate of other groups, NKHD intends to tailor social marketing materials to a wide range of citizen demographics.¹¹ According to data compiled by the Office of Vital Statistics for Kentucky, IDUs during the late 1990’s were predominantly African American or Hispanic males between the age of twenty-five and thirty-four.¹² Current data suggests a different demographic— 95% of IDUs in the Northern Kentucky Area Development District in 2010 were White males within the same age bracket, of whom were more likely to report being previously incarcerated, of low income, and affected by an alcohol or other drug addiction (i.e. heroin).⁵ Additionally, a growing number of female IDUs has contributed to pediatric concerns within the region, particularly with the transmission of

hepatitis to the growing fetus, according to state health assessments by the Kentucky Department for Public Health.¹³ With this broad spectrum in mind, the proposed needle exchange program intends to be responsive and reflective of a wide range of participant modalities.

The proposed intervention couples perfectly with existing organizations and programs within the community, so as to maximize impact while minimizing resource draw, including county jail expansions for heroin treatment (i.e. HEART: Heroin Expedited Addiction Recovery Treatment), Drug Free Kentucky (DFK), outpatient drug recovery programs, local ordinances, and local physician-led and medical facility programs in one of the 20 or so hospitals within the Northern Kentucky Area Development District, in addition to related programming currently run at the NKHD.¹⁴ In tandem with these programs within the region, the proposed evidence-based intervention will also further expand the goals and reach of current organizations and initiatives by tapping into the need for mobile education and resources across all demographics, and creating a comprehensive Community Advisory Board (CAB) to assist with surveillance and the organization of related, already existing programs by utilizing strong community assets like Northern Kentucky University. This advisory board aims to produce an exhaustive list of the multiplicity of organizations and resources available within the area, for users on the road to recovery and treatment, and will make materials with this information available at municipal locations, as well as within the mobile needle exchange unit. Similarly, locations that currently provide the safe disposal of unclean sharps and syringes would be expanded and more readily advertised within the district, and with time, additional permanent locations would be

added to create a larger reach and stronger foothold within the community. By implementing this intervention, NKHD intends to make a serious impact in the incidence of HCV via the “Exchange Northern KY” mobile unit, by supplementing similar existing initiatives within the area, and expanding upon the successes of comparable programs in Cincinnati and Lexington.

Community need for these programs within the Northern Kentucky Area Development District, as well as available resources, were identified through the Community Health Needs Assessment (CHNA) and Mobilizing for Action through Planning and Partnerships (MAPP) strategic planning processes, undertaken by Campbell, Kenton, and Boone counties’ respective public health departments prior to the implementation of the proposed “Exchange Northern KY” unclean sharp and syringe exchange program and examined during the 6-month planning and piloting program of the intervention. In order to continually assess community needs and resources on an ongoing basis and ensure programs are aligned with changing community needs, the CAB, and the program team housed within the Northern Kentucky Health Department will be charged with the collection of data from the Northern Kentucky Area Development District in regard to HCV incidence, and the continual evaluation of said data to provide the best adjustments and quality improvements to the intervention proposed.

It is estimated that “Exchange Northern KY” will have an annual reach of between 700 and 820 persons per year within the Northern Kentucky Area Development District based on data provided by similar evidence-based efforts in Cincinnati, or approximately 17% to 20% percent of the estimated population of IDUs within the

targeted region.¹⁵ A comparison of parallel projects in Lexington and Cincinnati (the latter reporting an annual reach of 763 persons in 2014, or a suspected 16% of IDUs),¹⁵ lead NKHD to believe that a reach of 17% to 20% percent of the estimated population of IDUs seems reasonable and achievable given population adjustments, with an additional outcome goal of 10% of participants per year entering treatment programs through referrals given through the mobile sharp and syringe exchange unit. Strategies for recruitment in participation with the “Exchange Northern KY” mobile unit will include flyers in multiple municipal, public, and private locations, on bulletin boards and in common meeting spaces. Local radio and TV channel time slots will be purchased in order to further bolster recruitment efforts within the community.

II. PROGRAM APPROACH

After considering the findings of CHNA and MAPP strategic planning processes in Boone, Campbell, and Kenton counties, the NKHD has worked tirelessly to engage the community and its leaders in the development of the proposed HCV intervention, and intends to continue to refine the proposed program over a 6-month planning and piloting period. A diverse Community Advisory Board (CAB; described in further detail later within this application) has been established, and members have actively participated in shaping the “Exchange Northern KY” program to fit the community, by assessing scientific literature review data, guidelines produced by the World Health Organization (WHO) and the Kentucky Health Department, and the strengths of comparable programs launched in Lexington and Cincinnati within the scope of the Northern Kentucky Area Development District and the proposed intervention’s goals. As the population of IDUs

can be highly varied—primarily linked through shared needle use, rather than demographic—all recruitment flyers, referral materials, and “Exchange Northern KY” branding are scheduled to be assessed by the CAB and social marketing specialist contracted by NKHD during this planning period for medical accuracy, cultural and lingual appropriateness, and inclusiveness of all possible participant demographics for a targeting approach. Further, during this 6-month period, a careful inspection of the referred health services will be completed to ensure appropriate and high-quality services will be rendered, and information regarding the “Exchange Northern KY” program and its partners is consistent and clear by ensuring data is available on the Northern Kentucky Health Department site, its associated social media accounts, and in all printed materials. Finally, during this planning period, the mobile needle exchange unit itself will be purchased, outfitted with program equipment, and will run a month-long pilot within the designated community locations just before implementation and assessed critically for quality improvement opportunities. All of these milestones and their appropriate completion will be monitored by the Project Coordinator, in addition to ensuring all program objectives are implemented in a safe and supportive environment for staff, including inclusivity and using a trauma-informed approach.

The CAB mentioned previously will meet monthly to collaborate and expand upon efforts of relevant community groups and organizations that focus their efforts within the Northern Kentucky Area Development District, to further community mobilization and activities. Organizations that should be included among community stakeholders include strong local assets like the Community Foundation of Northern Kentucky, Brighton Center, United Way, Northern Kentucky Community Action

Committee, Salvation Army, faith-based service organizations, area schools, and Northern Kentucky University (NKU). Major health departments in the area including Campbell County Health Department, and the Boone County Health Center, as well as primary care and hospital services from St. Elizabeth Healthcare (particularly, Alcohol & Drug Treatment Centers), HealthSouth Northern Kentucky Rehabilitation Hospital, Select/Specialty Hospital, are essential to ensure a comprehensive list of resources is made available to citizens of the area for rehabilitation and treatment services. Including community members in private practice, and other medically related fields should also increase buy-in within the district for the CAB's goals and initiatives. Leaders within the group—including the grant applicant organization, Northern Kentucky Health Department (NKHD)— will selectively invite other members into the CAB, to ensure an appropriate number of members is reached, and that the board is diverse and representative of the community and region. Other essential members of the group include members of each area health department and directors of rehabilitation services, as well as ex-drug users in the area to serve as lay health workers within the mobile unit. As trust and shared decision-making will be essential in the success of the “Exchange Northern KY” mobile unit, local police, fire, and EMS services will also be included and heavily relied on for judgment and insight regarding the program's implementation, and to ensure a firm understanding of the intervention's efforts with the community, mitigating any foreseeable conflict in delivery of “Exchange Northern KY” services.¹⁶ The CAB will also be sure to include youth within the community, and aims to engage students at Northern Kentucky University to further expand the proposed programs' reach among a younger demographic.

A formal structure for the CAB will be determined during the first meeting of board within the 6-month planning period, and will include nominations for officers and specific committees and subcommittees assigned to data collection and analysis, expansion of efforts, sharing dialogue surrounding HCV with the community, and mobilizing efforts for obtaining any additional funding. One of the first tasks undertaken by the board will be to examine the most recently produced needs assessment for the Northern Kentucky Area Development District, and to ensure all staff are appropriately up-to-date in blood-borne pathogen training, and have a keen understanding of the barriers to prevention, care, and treatment of HCV among IDUs within the region.¹⁷

The proposed “Exchange Northern KY” mobile unit will make several stops throughout the Northern Kentucky Area Development District each month allowing IDUs to safely dispose of used needles and syringes while supplying clean injection equipment to lessen the possibility of HCV transmission through shared needle use, in addition to providing a wealth of resources for those affected by substance abuse, HCV, and/or HIV. The proposed mobile unit aims to provide the region with on-site referrals to ancillary services like health, community, and social services, and education on topics including blood-borne virus and sexual health screenings, wound care, and overdose prevention, as adapted and modeled after guidelines provided by the WHO.¹¹ Resulting health impacts are aimed to primarily include an increase in public knowledge about the services provided by “Exchange Northern KY” to the community, and in long-term outcome goals, a 5% reduction in hepatitis C incidence after three years of program implementation. Further goals of the proposed intervention are outlined in the logic model provided in *Appendix A*.

The “Exchange Northern KY” mobile needle exchange unit will be run primarily out of a food-truck style van with a service counter on the side, and will visit four different identified locations within the Northern Kentucky Area Development District on a bi-weekly basis, following the schedule outlined below in *Table 2*. Routine scheduled maintenance and upgrades to the mobile unit will be completed on Sundays and Wednesdays, to ensure trust in the needle exchange program is consistently maintained, and participants are not left without sterile injection equipment due to hardware repairs.

Table 2. “Exchange Northern KY” Mobile Unit Schedule & Location Sites

SUN.	MON.	TUES.	WED.	THURS.	FRI.	SAT.
	2pm to 6pm 8pm to 10pm	1pm to 5pm		1pm to 5pm 7pm to 9pm	2pm to 6pm 8pm to 10pm	1pm to 4pm 6pm to 10pm
	Alexandria, KY	Florence, KY		Carrollton, KY	Williamstown, KY	Florence, KY
	Campbell County	Boone County		Carroll County	Grant County	Boone County
	Walmart Supercenter 6711 Alexandria Pike	Walmart Supercenter 7625 Doering Drive		Parklane Shopping Center 1207 Highland Avenue	Dollar General 125 Barnes Road	Walmart Supercenter 7625 Doering Drive

These locations were chosen based on their accessibility for citizens within each county, and were modeled after a similar mobile exchange unit run primarily out of shopping center parking lots in Cincinnati, due to their proximity to public transport.¹⁴

The mobile “Exchange Northern KY” unit will extend the reach of needle exchange and

HCV efforts within the northern part of the state, and increase access to treatment for IDUs who may not otherwise come into contact with a provider or public health practitioner. While the ease of finding the location and convenience of using the “Exchange Northern KY” unit as part of daily or weekly shopping activity serve as two of the main strengths of operating out of a retail location rather than a residential one, these determined locations will be evaluated by the NKHD and adjusted as appropriate after the first year of implementation as part of continuous quality improvement.

Participants in the program will be able to exchange unclean injection equipment on a “one-for-one plus exchange” unit capping at 10, meaning that regardless of the number of sharps returned to the mobile unit, participants will have the opportunity to take a total of 10 clean sharps in return, per person. The total number of used syringes exchanged per year is expected to top out around 30,000 according to population adjusted data from parallel efforts in Lexington, KY, and Cincinnati, OH.¹⁸ By this method, the proposed intervention is promoting and encouraging “secondary syringe distribution” in which the participant distributes some portion of the new, sterile injection equipment to other IDUs who cannot or will not visit the needle exchange unit themselves.¹⁹ The “low-threshold” service access achieved by the mobile unit and inconspicuous site locations helps to mitigate the highly stigmatized behavior of substance drug use, and its various forms of discrimination and barriers to services.

Beyond unclean sharp disposal and exchange, additional resources and information will be available on-site the mobile unit regarding local treatment centers, rehabilitation, and social services for those interested, but will not be required in the exchange of needles. All exchanges of used sharps and syringes and collection of

information will be strictly confidential, and all staff will be bound to a signed certificate of confidentiality, to ensure trust is developed and maintained between the NKHD, “Exchange Northern KY” staff, and the district community. Mobile needle exchange programs have consistently been proven to attract persons with the highest risk profiles for HCV and HIV infection, and are frequently successful in referring participants into detoxification and substance abuse treatment programs, accordingly to more recent compilations of data from the Substance Abuse and Mental Health Services Administration (SAMHSA).²⁰ By utilizing a small recurrent number of program staff within the unit, as well as employing community lay health workers, trust and relationship building can flourish despite the program’s mobile nature.

An initial list of referrals for community rehabilitation and treatment facilities will be generated by NKHD program team, and is to be cross-referenced with national and international accreditation for professional and ethical standards. The Community Advisory Board will then collaborate and compile a list of additional organizations and resources that are appropriate for drug rehabilitation services and treatment, and recruit any additional linkages necessary by email, including a brief synopsis of the “Exchange Northern KY” efforts and goals of the evidenced-based needle exchange intervention. These services will extend beyond sharps collection, to allow those who choose to seek additional help on the road to recovery a variety of options that correlate to their stage of life, geographic location, and needs in correlation with the Transtheoretical Stages of Change model.

Strategic dissemination and communication to raise awareness for the “Exchange Northern KY” program will come through flyers and bulletins throughout the district,

hung in common meeting places and establishments, as well as media coverage in newspapers, online, etc. Goals of the dissemination will include organic growth by word-of-mouth, as well as by referrals back to the needle exchange programs by other associated referred organizations and services. The CAB in tandem with the NKHD will also help outline goals and objectives for disseminating information to community stakeholders, through respected community members like faith leaders, elected officials, etc.

Fidelity within the “Exchange Northern KY” program staff will be of high priority, particularly as the intervention serves a variety of locations and is expected to consistently provide the same quality of services without bias. A high level of fidelity in services delivered across each location will further encourage trust between the program staff and participants, as consistency within these communities has been associated with prolonged participation by IDUs.¹⁹ In order to monitor fidelity within the program, bi-weekly self-report checklists will be provided to all staff working within the mobile unit to ensure high quality outputs, as well as photo documentation to be assessed for appropriate and safe equipment usage. In addition, syringe counts will be tabulated and assessed to ensure that staff are giving out ten syringes in compliance with the “one-for-one plus exchange” ratio. Further, the program coordinator will make unannounced visits to the mobile unit to observe behavior and ensure the quality of service provided to the community is of the utmost level. All staff in any way associated with the mobile exchange unit will be required to complete a 3-day training workshop including blood-borne pathogens certification, and are expected to retake their certification exam every

year of the program implementation, in addition to extensive preparedness training to ensure safety within the mobile environment in case of conflict.

NKHD and the CAB are committed to development and adherence to plans sustainability with the proposed “Exchange Northern KY” intervention, in addition to collecting and measuring performance data to make continuous quality improvements, and evaluating the outcomes of the program. While it will be difficult to postulate that the resulting health outcomes are based solely on the efforts of our intervention, performance measures and outcome data (highlighted in detail shortly within this application) should provide strong evidence of the effectiveness of the needle exchange program, and the strength of associated like-minded organizations within the Northern Kentucky Area Development District through the CAB. Financial sustainability in any is a concern, but NKHD feels that subsequent grant funding is a feasible option, as well as joint ventures and financial partnerships with collaborating organizations in the current “Exchange Northern KY” initiative. If sustainable and effective beyond the three-year trajectory of this proposed intervention, the mobile unit intends to expand its efforts to include on-site hepatitis C testing and naloxone, a lifesaving overdose reversal drug, when available.²¹

III. PERFORMANCE MEASURES AND EVALUATION

Specialized tablet software will be employed when obtaining performance measures within the “Exchange Northern KY” program, via an application installed on the tablet devices, chronicling the general number of participants served in needle exchange services and estimated number of unclean syringes when possible. This data will be able to be collected in real-time during each site’s exchange of unclean injection

supplies, and will also have capabilities allowing it to report a running total of unclean sharps collected throughout the mobile unit's opening hours. This data will be automatically compiled and sent electronically to the program coordinator and grant applicant team, and accordingly assessed every week for the first six weeks of the program, and then every two weeks following the initial 6-week period, to measure for site quality improvement on a continuous basis. Self-report data will also be collected via the specialized tablet application during each participant's injection supply exchange and will include brief questions regarding gender, ethnicity, age, and recent usage of any needle exchange service within or outside "Exchange Northern KY." Questions regarding knowledge of link between intravenous drug use and HCV infection will not be included, so as not to prime "Exchange Northern KY" participants in their response pattern. To lessen fear or anxiety regarding the completion of these demographic questions, lay health workers with strong roots in the community will be on-hand at each site and available to answer any questions participants may have regarding the usage of the data provided.

A random digit dial pre-test phone survey regarding community attitudes and knowledge of area resources surrounding intravenous drug usage will be initialized by the NKHD in order to track change awareness of the "Exchange Northern KY" program within the Northern Kentucky Area Development District. A similarly designed post-test phone survey will be undertaken after the program has been implemented and functional for six months, as well as again after one year, and compared back to baseline data. Participants in each round of surveys will receive \$5 by mail upon completion of the survey as an incentive for completion.

State and federal reports of intravenous drug use and HCV incidence within the community will be compiled from data sources like Partnership for Drug-Free Community, the Commonwealth of Kentucky, etc., in order to expand on quantitative baseline incidence data collected through the random digit dial surveys. Baseline data from the U.S. Census reports will be considered though not relied upon for annual comparisons, as it often lags 1-2 years behind most current figures.

For more short-term tracking, CAB members from the health departments in Campbell, Kenton, and Boone counties will submit local data to the program coordinator and biostatistician of the NKHD, who will then compile. NKHD will be accountable for significant aspects of the evaluation and assessment aspects of the program, collecting and interpreting data received from the Coroner's office, similarly aligned organizations, and state/federal authorities, such as the Commonwealth of Kentucky's Justice & Safety Cabinet. Members of this team shall include but are not limited to: police and local law enforcement, government officials, hospital administrators, nurses, clinicians, public health professionals, drug treatment specialists, correctional officers and wardens, EMT and paramedics, and Northern Kentucky Area Development District citizens who are passionate about the aims of the "Exchange Northern KY" intervention and mitigating HCV infection within the community. The NKHD and the CAB will also work with community leaders to promote legislation to bolster the legality of needle exchange programs across the nation, following the Surgeon General's expressed backing of the such programs' effectiveness in March 2015.²²

Following the implementation of this intervention, we intend to continue to assess the area knowledge of the existence of the "Exchange Northern KY" program in the

Northern Kentucky Area Development District through the random digit dial surveys, and monitor the number of unclean needles exchanged at each site during its operation (confirming numbers when unloading the mobile unit). This performance and measurement data will be utilized to make continual improvements to the program, and its continued expansion and implementation within the Northern Kentucky Area Development District. In assessing this data, members of the grant applicant organization lead by the program director and CAB will document and identify key successes (such as the most heavily-utilized “Exchange Northern KY” locations and trends in effective social marketing campaigns tailored for ethnic groups), challenges (such as difficulty with site location buy-in from shopping center owners, or effectiveness of locale within the community served itself), and lessons learned throughout the process. This process evaluation information is to be obtained individually by those working in “Exchange Northern KY” unit within the community, and relayed back to members of the CAB to be examined further during weekly meetings. Appropriate adjustments due to these successes, challenges, and lessons learned, are to be implemented incrementally beginning at the six-month implementation mark, with more significant adjustments occurring after one year of implementation, considering baseline data within this context. Further qualitative data regarding evaluation will be obtained anonymously from participants within the community after utilizing the services of the “Exchange Northern KY” mobile unit through a suggestion box, as well as from program staff and referral practices who interact with the intervention and its outputs. If feasible within the grant period, we aim to audio record the firsthand experience of IDUs within our program for

further qualitative data analysis, to report back to the funder and the Northern Kentucky Area Development District community as a whole.

Obstacles that may be faced include inaccurate reporting or double counting of unclean injection equipment at the mobile unit location, or failing to report totals in the electronic tablet application during an exchange. Further, any issues with the electronic reporting system may cause back-ups in data retrieval or even basic reporting, and will be accounted for by supplying site locations with a pen and paper version of the tablet application system, as well as the phone number for the program coordinator at the Northern Kentucky Health Department to report data figures, and any complications or concerns with the electronic application system. In turn, the electronic system will be tested rigorously prior to implementation during the 6-month planning and piloting period, and continually checked for complications or failure with the rest of the “Exchange Northern KY” program for quality control.

Another program limitation for consideration is the political climate of the Northern Kentucky Area Development District and any conceivable state policy that may not allow us to complete our program objectives as described. At the time of this application, more than 10 counties within the Commonwealth had successfully passed legislation allowing needle exchange programs to be implemented, including all four counties in which the “Exchange Northern KY” mobile unit will be established. Accordingly, the NKHD feels strongly that the timing is critical for the introduction of the proposed intervention, in order to provide research data to support additional needle exchange program legislation within the state.

One main outcome goal of the “Exchange Northern KY” program is a 10% of total needle exchange participants seeking treatment or utilizing other community resources for positive behavioral change, tracked by entry into healthcare system via ancillary referrals made on-site the mobile exchange unit. Through the series of three random digit dial surveys undertaken at various points previous to and during the intervention, we aim to see a significant increase in citizens’ awareness of the presence of the "Exchange Northern NY” program in the Northern Kentucky Area Development District and other community services and resources currently provided to citizens. Further, we intend to capture a reach within the community of 17% to 20% of the estimated IDUs within the Northern Kentucky region, with a 1% increase in participation after one year of implementation, tracked through counts and demographic data provided on tablet devices via the specialized application installed.

Long-term goals for this intervention will be a 5% reduction in HCV incidence within the district within 3 years, as well as maintaining program efforts consistently over the three-year period, and securing additional funding after grant funding has ceased, assessing and reevaluating outcome goals continually. The quantitative goals of this intervention will be monitored and tracked through data submitted by the state, and by the appropriate collection of data regarding used sharps and syringes at “Exchange Northern KY” sites within the area, then verified by other organizations within the Northern Kentucky Area Development District with similar goals. The proposed intervention aims to positively impact IDUs and HCV infection with a large reach while utilizing grant monies awarded effectively, expanding on existing services and providing

additional and mobile points of access for the citizens of the region across to acknowledge and utilize resources available to them for recovery and treatment.

For program evaluation, a small number of questions are suggested to be added to BRFSS surveys in order to further evaluate our efforts with the “Exchange Northern KY” intervention. These questions will comply with relevant state and federal policy, as well as with the enactment of laws that specifically address the legality of intravenous drug use. Responses regarding illicit drug use will not be tied to particular individuals when provided in anonymous survey data, like that of the U.S. Census, or in the proposed intervention’s random digit dial surveys. The dichotomous response questions suggested for addition by the grant applicant organization are as follows:

1. Are you aware of any needle exchange programs in your area, in which you could bring used sharps and syringes for safe disposal and exchange them for clean ones
2. If you answered yes to the above question [include question number], have you participated in one of these programs yourself?
3. If you answered yes to the above question [include question number], do you know someone else (other than yourself) who has participated in one of these programs?
4. Would you say having knowledge of this needle exchange program made you/ will make you more likely to dispose of your used needles and syringes in a safe manner?
5. In the last calendar year, have you initiated or begun using intravenous drugs, like heroin?

6. In the last calendar year, have you sought help for intravenous drug use?

Data collected by state and federal surveys will be assessed as soon as made readily available, and used for further process and outcome evaluations. As state data is often made available sooner than federal data, primary findings will be loosely reported to the community and funding organization until which time they can be substantiated by federal data. Full findings of the “Exchange Northern KY” mobile needle exchange unit will be disseminated in scientific literature upon the completion of the grant period and implementation, in collaboration with Northern Kentucky University.

IV. CAPACITY OF APPLICANT ORGANIZATION

The applicant organization for this grant proposal is the Northern Kentucky Health Department (NKHD), whose jurisdiction encompasses the four largest counties of the Northern Kentucky Area Development District (Campbell, Kenton, Boone, and Grant counties) of the Commonwealth of Kentucky and operates out of six locations in the area including four county health centers. The applicant organization has ample experience implementing evidence-based programs on a large scale, with between four and five federally funded programs underway at any given time benefiting these counties, including initiatives covering program areas such as smoking cessation, diabetes, and HIV testing. The Northern Kentucky Health Department acknowledges the role of the community, and holds a number of volunteer programs and community planning meetings throughout the year to increase community participation, and is frequently acknowledged for its leadership in public health within the area served by both citizens

and peer organizations such as the Campbell, Kenton, and Boone County health departments, respectively. Existing infrastructure within NKHD in regard to needle exchange programs includes currently active programs that provide education about IV drug use, increase access and awareness to treatment options readily available within the community, and efforts to reduce wait time for community drug treatment programs, making the inclusion of the proposed “Exchange Northern KY” mobile needle exchange unit a natural complement to existing programs. Further, the Northern Kentucky Health Department intends to use the proposed intervention as a way to bolster existing programs run by each individual health department, and maintain collaboration with them and other essential community partners. In addition, the successful management of federally funded grants by the organization in the past proves the efficiency and effectiveness of the organization to implement prevention programs moving forward into the future. The NKHD strongly enforces a policy prohibiting discrimination in the provision of services based in age, disability, sex, race, color, national origin, religion, sexual orientation or gender identity.

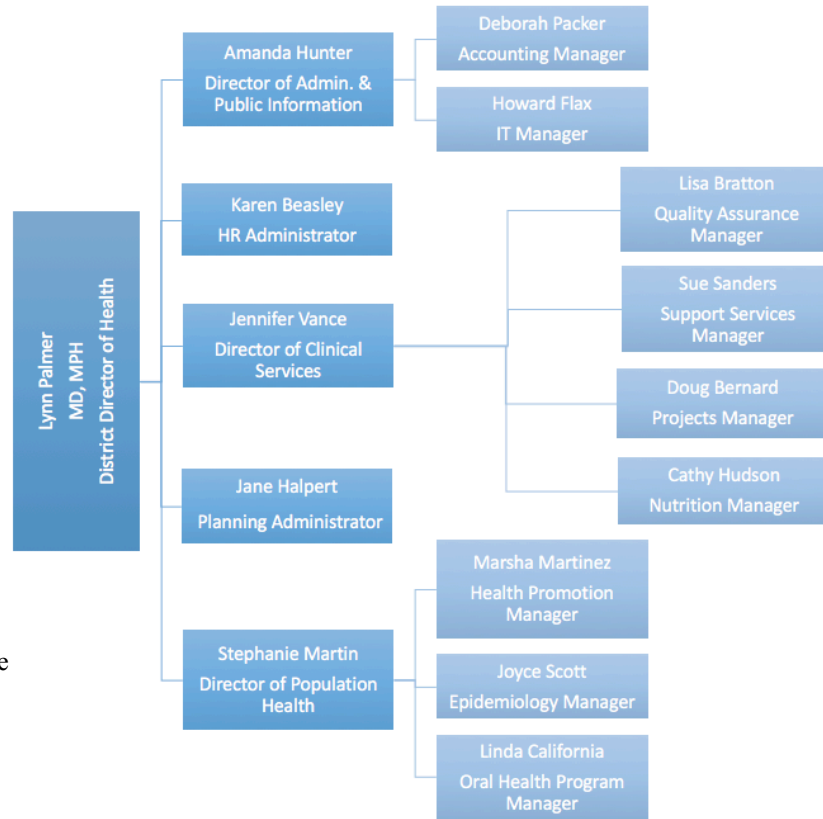


Figure 2.
Organizational chart for the
Northern Kentucky Health
Department

Lynn Palmer, MD, MPH, District Director of Health— In her position, Dr. Palmer oversees a staff of about 150 employees and a budget of more than \$15 million. She also works closely with the District Board of Health and leadership in Boone, Campbell, Grant and Kenton Counties to assure the delivery of quality public health services to more than 380,000 residents. Further, Dr. Palmer guided the health department in its effort to be among the first nationally accredited local health departments in the country. She began her tenure of District Director of Health in September 2010 with almost 20 years of public health experience. Dr. Palmer was the Assistant County Public Health Department Director for the Polk County (Florida) Health Department for 12 years, where she was responsible for agency strategic planning, performance management, administrative services, health care system partnerships and preparation for accreditation. She serves on a number of community boards and

committees including the United Way's Collective Impact on Health, Vision 2015's myNKY leadership team, Northern Kentucky University's Health Innovations Center External Advisory Committee, the Northern Kentucky Chamber of Commerce Board of Directors, the Northern Kentucky Heroin Impact Response Team, and Boone County Success by 6. She also serves as an adjunct faculty member with the University of Kentucky College of Public Health.

Amanda Hunter (Project Assistant), Director of Administration & Public Information— Hunter has been working at the Northern Kentucky Health Department for 4 years, and has duties that mainly concern all of the agency's communication efforts, including media relations, employee communications, social marketing communications, and crises communications, as well as all website management. Hunter holds a master's degree in health behavior from the University of Kentucky College of Public Health and is a Certified Communicator in Public Health.

Karen Beasley, HR Administrator—Beasley has a long history of overseeing recruiting and hiring, employee benefits, safety, and legal compliance and will work closely with the program director to determine all staffing for the duration of the proposed intervention. Beasley has been certified by the Human Resources Certification Institute since 2009 and by the Kentucky Public Human Resources Association since 2003, and has been actively involved nearly all of the grant-funded programs spearheaded by the Northern Kentucky Public Health Department.

Jane Halpert, Planning Administrator—Halpert has worked at the Health Department for more than 18 years. Her duties include the development and maintenance of the agency's performance management system, providing staff training and technical

assistance in quality improvement. Halpert has largely helped pioneer the community health needs assessment for the region, and currently serves as chair of the National Association of County and City Health Official’s Performance Improvement Workgroup, and is a member of NACCHO’s Performance Improvement Learning Community and HRSA-NOSLO Advisory Committee. Halpert has a Master’s in business administration from Sullivan University, and is a Certified Quality Improvement Associate from the American Society for Quality.

Although only highlighting a few of the main directors of the NKHD, the rest of the grant applicant team highlighted in *Figure 2* have a combined 47 years of experience in public health, particularly in the creation and implementation of evidence-based interventions within the Northern Kentucky Area Development District, with a variety of programmatic specialties including gerontology, child and maternal health outcomes, and nutrition, and will likely collaborate on the “Exchange Northern KY” intervention.

V. PARTNERSHIPS AND COLLABORATION

Table 3. “Exchange Northern KY” Community Advisory Board (CAB) Members

Community Advisory Board (CAB) Members
<i>Marc Hubbard</i> , NKY Area Development District
<i>Leah Brody</i> , Brighton Center
<i>Claire Emmons</i> , United Way
<i>Matthew Gilchrist</i> , Salvation Army
<i>Jacob Yakeley</i> , Campbell County Health Department
<i>Jessica Landon</i> , Boone County Health Department
<i>Justin Abbot, MD</i> , St. Elizabeth Healthcare (Alcohol & Drug Treatment Centers)
<i>Sara Mason, MD MPH</i> , HealthSouth Northern KY Rehabilitation Hospital
<i>Victoria Phillips, MD</i> , Select/Specialty Hospital
<i>Lauren Snyder</i> , HEART: Heroin Expedited Addiction Recovery Treatment
<i>Thomas Schrute</i> , Captain, Boone County Police Department
Lay health workers with intimate experience working in IDU population (TBN)
Ex-drug users (TBN)

As the grant applicant organization exists to serve its community first, the proposed “Exchange Northern KY” intervention has previously been proposed to key community stakeholders within the area as previously highlighted within this application, including but not limited to: Community Foundation of Northern Kentucky, Brighton Center, Northern Kentucky Area Development District, United Way, Northern Kentucky Community Action Committee, Salvation Army, faith-based service organizations, area schools, Northern Kentucky University, and major health departments in the area including Campbell County Health Department, and the Boone County Health Center, as well as primary care and hospital services from St. Elizabeth Healthcare (particularly, Alcohol & Drug Treatment Centers), HealthSouth Northern Kentucky Rehabilitation Hospital, and Select/Specialty Hospital. To reiterate, the “Exchange Northern KY” mobile unit proposed couples perfectly with existing organizations and programs within the community and within NKHD, so as to maximize impact while minimizing resource draw, including county jail expansions for heroin treatment (i.e. HEART: Heroin Expedited Addiction Recovery Treatment), Drug Free Kentucky (DFK), and outpatient, physician-led, and medical facility programs drug recovery programs within many of the area hospitals and facilities.

Five primary organizations will collaborate with the Northern Kentucky Health Department in their “Exchange Northern KY” initiative. Among their individual contributions to the program, each collaborator will be expected to be a mainstay within CAB meetings, often facilitating discussion and leading new initiatives based on quality improvement through the course of the intervention. A brief summary of each partnership’s expertise and expected outcomes are summarized within *Table 4* below.

Table 4. Primary Organizations in “Exchange Northern KY” Collaboration

Organization	Expertise of Organization	Roles & Responsibilities
<i>Meagan Wilson, PhD</i> , UK Center for Drug & Alcohol Research (CDAR)	<ul style="list-style-type: none"> - Provides consultation services surrounding substance abuse to public agencies, as well as state and local government. - Provides training based on evidence-based treatment, intervention and prevention approaches. 	<ul style="list-style-type: none"> - Key partner in the training and fidelity of all “Exchange Northern KY” personnel and staff. - Help guide early implementation and piloting of program within Northern Kentucky Area Development District.
<i>Ryan Akers, PhD</i> , Northern Kentucky University	<ul style="list-style-type: none"> - Public, co-educational university in Northern Kentucky with strong ties in the community and to numerous local businesses and organizations promoting healthier outcomes for the region’s citizens. - Health Professions Department has extensive knowledge of implementing evidence-based research initiatives in region. 	<ul style="list-style-type: none"> - Partner in identifying, training, and retaining graduate students and other occasional participants for work in the “Exchange Northern KY” mobile unit. - Help analyze statistical data and outcome performance measures alongside biostatistician, as well as disseminate resulting data upon completion of intervention, in addition to after predetermined milestones.
<i>Reid Holmes</i> , Northern Kentucky Community Action Committee	<ul style="list-style-type: none"> - Since 1966, the Committee has been an “on the ground” force in the war on poverty in Northern Kentucky and its associated poor health outcomes, by providing services and a voice for the community and the region. - Extensive experience in effectively managing an \$11 billion budget of mixed public and private funding resources. - Unparalleled network of hundreds of thousands of local volunteers committed to enacting positive change within the Northern Kentucky region. 	<ul style="list-style-type: none"> - Assist with identifying key venues and sources for promotional materials to be displayed within the Kentucky Area Development District - Provide a critical eye in the management of grant monies awarded and trusted resource in efforts aimed at sustainability after full utilization of grant monies.

<p><i>David Case, Community Foundation of Northern Kentucky</i></p>	<p>-“Sustainable, charitable, and profound organization” dedicated to supporting and enhancing the health of citizens in Northern Kentucky Area Development District - Experience running several long-established evidence-based programs targeting vulnerable populations such as women, child, and the elderly.</p>	<p>- Provide additional perspective and resources particularly for pregnant women, who might otherwise be overlooked in the targeting of the “Exchange Northern KY” program.</p>
<p><i>Danielle Holden, MD, Drug Free Northern Kentucky (DNFK)</i></p>	<p>- Strong association with ten coalitions with similar outcome goals across eight counties, including the Northern Kentucky Agency for Substance Abuse - Over 25 years of experience working in the field of behavioral health and maximizing access to mental health and substance abuse treatment services for teens and their families.</p>	<p>- Provide a sizable number of lay health workers within the community to help facilitate trust between “Exchange Northern KY” staff and the IDU community, and increase participation. - Help with final assessment of compilation of community treatment and rehabilitation services for participants to access on the “Exchange Northern KY” mobile unit.</p>

Signed memorandum of understanding (MOU) documents for the highlighted “Exchange Northern KY” collaborators as well as other community advisory board members (listed above in *Table 3*) are included in the attached *Appendix D*. The NKHD has proposed and expanded upon a diverse range of partners for optimal success in the intervention, by engaging local-, and state-level organizations within the Northern Kentucky Area Development District who share a vested interest in the program’s success. While the grant applicant organization acknowledges the risk associated with having ex-drug users involved with the “Exchange Northern KY” in regard to relapse, we

feel strongly that engaging this sector of the community is essential in connecting the IDU population in the district with the program, and will provide lay health workers with strong training and coping mechanisms to lighten any stress associated with the program environment. By coupling the proposed needle exchange program within the context of a comprehensive community-driven HCV prevention strategy, NKHD feels strongly that these partnerships will increase the likelihood of reaching more member of the IDU community, and creating a significant impact in HCV incidence within the region.

VI. PROJECT MANAGEMENT

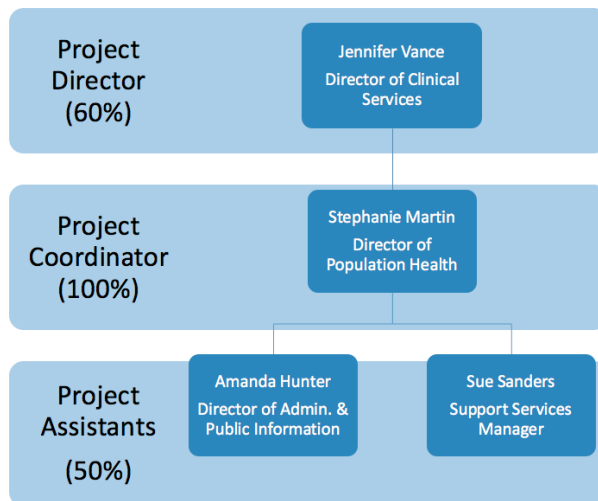


Figure 5.
Organizational chart for the
project management of
“Exchange Northern KY”

Appropriate project management will be essential in the success of the proposed “Exchange Northern KY” intervention, and will mainly be coordinated by the project coordinator and the program director, who will share the responsibilities of overseeing the program.

Jennifer Vance, Director of Clinical Services (Program Director)—Vance has

held the Director position since January 2007, and oversees a staff of more than 90 employees whom provide preventative care for children and adults in the Northern Kentucky Area Development District. She is active in several community organizations, and previously served as President of the Northern Kentucky Women’s Cancer Coalition. Vance is a Registered Nurse and holds a Bachelor of Science degree in nursing from Northern Kentucky University, a certification in Public Health Nursing from the University of Kentucky College of Nursing, and a Master of Nursing (specialty in public health nursing) from the University of Kentucky. As program director, Vance will oversee program staff in the planning administration, hiring and training of additional public health nurse (RN) as needed, and graduate students from Northern Kentucky University for participant-facing interactions on the mobile needle exchange unit.

Stephanie Martin, Director of Population Health (Project Coordinator)— Martin oversees the Population Health division, which takes a broad look at health issues and outcomes impacting the entire community, or large portions of it. The division largely includes community health promotion programs such as HIV prevention, HIV Case Management services, and epidemiology. Martin serves as Chair of the Northern Kentucky Agency for Substance Abuse Policy, is a member of the health task force for United Way of Greater Cincinnati, the Cincinnati Children's Hospital. As project coordinator, Martin will oversee the other program staff in all social marketing campaigns, performance management system, and the overall implementation of the “Exchange Northern KY” mobile unit within the community. Additionally, the project coordinator will be responsible for overseeing the direction of the biostatistician, social marketing specialist, and the IT professional/ software writer, and confirming the

completion of their contracted components of the “Exchange Northern KY” program, as well as running the 3-day training session for all program staff.

Both the program coordinator and the program director have successfully implemented evidence-based programs within the district with high quality performance and strong program outcomes, therefore the successful accomplishments of project activities is achievable and early identification of challenges or barriers is realistic. As a unit, the proposed project team has ample experience and expertise necessary to the implement this HCV needle exchange program successfully, relishes in mobilizing communities to action, and analyzing data to assess program progress. Continuous quality improvement and process evaluation will be readily assessed by the project coordinator to better further our efforts within the Northern Kentucky Area Development District.

In addition to their roles these overseeing roles, Amanda Hunter and Sue Sanders will serve as project assistants as “on-the-ground” staff within the mobile unit. Both have extensive experience working with multiple local-, state-, and federal-level organizations including Northern Kentucky Area Development District, professional organizations, and community leaders to manage and direct grant efforts, and will ultimately serve as liaisons between “Exchange Northern KY” program staff, the Northern Kentucky Health Department community partners, and the program coordinator and director at the NKHD. The project assistants will be highly utilized in the rigorous testing of the specialized tablet application and reporting system and the entirety of the planning and piloting period of the program.

Team management through constant communication will be vital—there will be weekly “Exchange Northern KY” program team meetings led by the project coordinator in addition to monthly CAB meetings throughout the planning and implementation periods of the grant. Discussion will primarily revolve around continual quality improvement efforts, analysis of data collected, consideration of qualitative data from mobile unit “suggestion box” and experience of project assistants during each site visit. Beyond interpersonal interaction, email and teleconferencing will be heavily utilized, particularly given the mobile nature of the unit, to allow interfacing between the project assistants and the project coordinator.

References

¹ Hall HI, Song R, Rhodes P, Prejean J, An Q, Lee LM, Karon J, Brookmeyer R, Kaplan EH, McKenna MT, Janssen, RS for the HIV Incidence Surveillance Group. Estimation of HIV incidence in the United States. *JAMA*. 2008;300(5):520-529.

² Department of Health & Human Services. “Action Plan for the Prevention, Care, & Treatment of Viral Hepatitis. Washington DC; 2014. 2-98. Print.

³ Institute of Medicine, National Research Council (2005). Preventing HIV transmission: The Role of Sterile Syringes and Bleach. *National Academy Press: Washington DC*. http://www.nap.edu/openbook.php?record_id=4975&page=R1

⁴ DeMio T. “As heroin epidemic rages, Hep C cases soar.” Cincinnati.com. <http://www.cincinnati.com/story/news/2016/02/16/hepatitis-c-cases-skyrocket-hamilton-ky-counties/80447698/>

⁵ Centers for Disease Control and Prevention. “Increases in Hepatitis C Virus Infection Drug Use Among Persons Ages < 30 Years— Kentucky, Tennessee, Virginia, and West Virginia, 2006-2012.” *CDC MMWR*. Vol. 64, No. 17. May 8, 2015.

⁶ DeMio T. “Hepatitis C testing continues as NKY rate soars.” Cincinnati.com. <http://www.cincinnati.com/story/news/2014/06/18/northern-kentucky-health-department-heptatis-c/10793927/>

⁷ “Viral Hepatitis Surveillance: United States, 2013.” *Department for Viral Surveillance*. Centers for Disease Control. Web. 7 Mar 2016.

⁸ Satcher, D. “Evidence-based findings on the efficacy of syringe exchange programs: an analysis of the scientific research completed since April 1998.” U.S. Department of Health & Human Services. 17 Mar 2000. Print.

⁹ Center on Drug and Alcohol Research. “Intravenous Drug Use among Kentucky Adults.” Kentucky Needs Assessment Project Brief Report. <http://cdar.uky.edu/knap/brief-aidu/brief-aidu.htm>

¹⁰ Strathdee, S et al. “Facilitating entry into drug treatment among injection drug users referred from a needle exchange program: Results from a community-based behavioral intervention trial.” Elsevier Journals. 12 Nov 2005. Print.

¹¹ World Health Organization. “Guide to Starting and Managing Needle and Syringe Exchange Programs.” Department of HIV/AIDS. Geneva: WHO Library Cataloguing-In-Publication Data, 2007. 3-63. Print.

- ¹² "Kentucky QuickFacts from the US Census Bureau." *Kentucky QuickFacts from the US Census Bureau*. US Census, n.d. Web. 10 Oct. 2015.
<http://quickfacts.census.gov/qfd/states/21000.html>
- ¹³ "State Health Assessment: A Compilation on Health Status." Kentucky Department for Public Health: Cabinet for Health & Family Services. Web. 28 Feb. 2016.
- ¹⁴ Boone County Alliance for Healthy Youth. "Heroin Task Force Fact Sheet." *BCA Heroin Task Force Manual* (2012): 1-2. Web. http://www.florence-ky.gov/sites/default/files/florence/2013_10_Boone_Co_Heroin_Task_Force_Fact_sheet.pdf
- ¹⁵ Cincinnati Exchange Project. *Quick Facts*. <http://cincyep.org/quick-facts/>
- ¹⁶ Kentucky Public Health. "Kentucky Harm Reduction & Syringe Exchange Program (HRSEP): Guidelines for Local Health Departments Implementing Needle Exchange Programs." Louisville; 11 May 2015. 4-35. Print.
- ¹⁷ Edlin, B et al. "Overcoming Barriers to Prevention, Care, and Treatment of Hepatitis C in Illicit Drug Users." *National Institutes of Health*. Oxford Medical Journals. Web. 31 Mar 2016. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1510897/>
- ¹⁸ Lexington-Fayette County Health Department. "Needle Exchange: Info." <http://www.lexingtonhealthdepartment.org/ProgramsServices/NeedleExchangeProgram/tabid/263/Default.aspx>
- ¹⁹ World Health Organization. "Evidence for Action Technical Papers: Effectiveness of Sterile Needle and Syringe Exchange Programming in Reducing HIV/AIDS Among Injecting Drug Users." Department of HIV/AIDS. Geneva: WHO Library Cataloguing-In-Publication Data, 2004. 2-61. Print.
- ²⁰ SAMHSA. "HHS Releases Guidance for Syringe Services Programs." Web. Apr 1 2016.
http://blog.samhsa.gov/2016/03/30/hhs-releases-guidance-for-syringe-services-programs/#.Vv_1LGPpioP
- ²¹ Honeycutt AA, Harris JL, Khavjou O, Buffington J, Jones TS, Rein DB. The costs and impacts of testing for hepatitis C virus antibody in public STD clinics. *Public Health Rep.* 2007;122 Suppl 2:55-62. PubMed PMID: 17542455; PubMed Central PMCID: PMC1831797.
- ²² "Notice: Determination That A Demonstration Needle Exchange Program Would be Effective in Reducing Drug Abuse and the Risk of Acquired Immune Deficiency Syndrome Infection Among Intravenous Drug Users." Office of the Federal Register. Web. 2 Apr 2016. <https://www.federalregister.gov/articles/2011/02/23/2011->

3990/determination-that-a-demonstration-needle-exchange-program-would-be-effective-in-reducing-drug-abuse

²³ “State Health Assessment: A Compilation on Health Status.” Kentucky Department for Public Health: Cabinet for Health & Family Services. Web. 28 Feb. 2016.
<http://chfs.ky.gov/nr/rdonlyres/cf31d71b-c7e3-4fa3-a8c7-713bea63f833/0/2013kystatehealthassessmentfinal52913.pdf>

²⁴ “Update: Syringe Exchange Programs—United States, 1997” *MMWR Weekly*. Centers for Disease Control. 14 Aug 1998.
<http://www.cdc.gov/mmwr/preview/mmwrhtml/00054275.htm>

²⁵ “Combating the Silent Epidemic of Viral Hepatitis.” *Aids.gov*. Web. 1 Apr 2016.
<https://www.aids.gov/news-and-events/hepatitis/>

²⁶ Centers for Disease Control. “Syringe Services Programs (SSPs): Developing, Implementing, and Monitoring Programs.” National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. Web. 1 Apr 2016.
<http://www.cdc.gov/hiv/pdf/risk/cdc-hiv-developing-ssp.pdf>

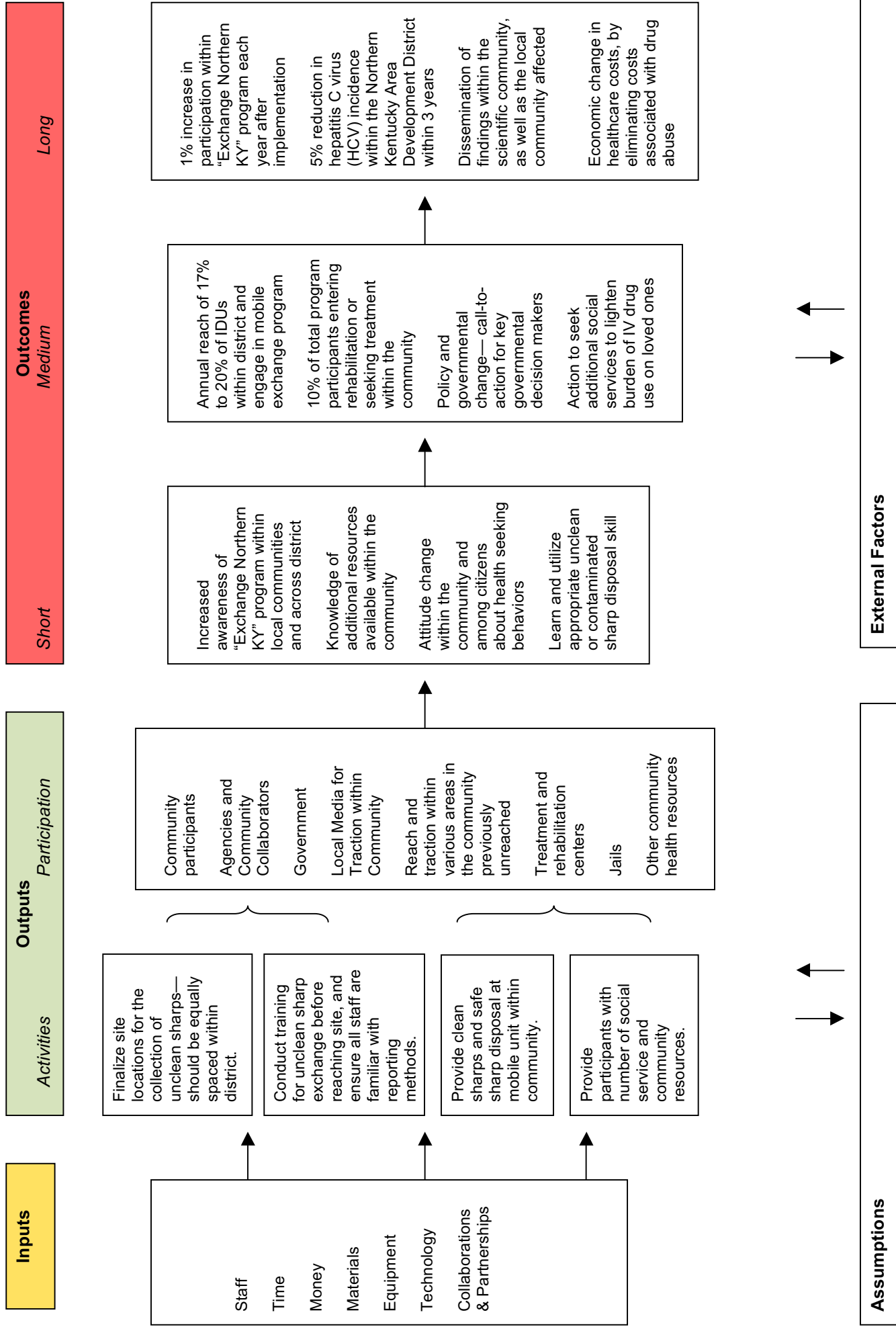
²⁷ Raymond, D. “Beyond Syringe Access Adapting Needle Exchange Program to HCV Prevention.” Harm Reduction Coalition. Web Presentation. 1 Apr 2016.
http://www.cdc.gov/hepatitis/resources/mtgsconf/natvhprevconf2005/friday/j3_raymond.pdf

²⁸ “Sharps disposal an important health concern.” *Endocrine Today*. 12 Jun 2007. Web Database. 1 Apr 2016. <http://www.healio.com/endocrinology/practice-management/news/print/endocrine-today/%7B4c97b4ac-2168-4561-9197-27f39af690b2%7D/sharps-disposal-an-important-health-concern>

²⁹ Department of Health & Human Services. “Implementation Guidance to Support Certain Components of Syringe Services Programs, 2016.” 29 Mar 2016. Print.

³⁰ Abduljawad A, Al-Assaf AF. Incentives for Better Performance in Health Care. *Sultan Qaboos University Medical Journal*. 2011;11(2):201-206.

NKHD "EXCHANGE NORTHERN KY" MOBILE NEEDLE EXCHANGE PROGRAM: LOGIC MODEL



Appendix B: BUDGET & JUSTIFICATION
BUDGET

Personnel

Project Coordinator Stephanie Martin	100%	\$50,000
Program Director Jennifer Vance	60%	\$30,000
Fiscal Manager Beth Coleman	6.5%	\$3,250
Project Assistant Amanda Hunter	50%	\$25,000
Project Assistant Sue Sanders	50%	\$25,000
Biostatistician TBN	30%	\$15,000
Social Marketing Specialist Kim Lapin	30% for Year 1; 20% for Year 2 & 3 \$15,000 for Year 1; \$10,000 for Year 2 & 3	
IT Professional / Software Writer TBN, Athenahealth, Inc.	35% for Year 1; 20% for Year 2 & 3 \$17,500 for Year 1; \$10,000 for Year 2 & 3	
Mobile Unit Driver TBN	35%	\$17,500

Year 1 Total: \$180,750
Year 2 Total: \$168,250
Year 3 Total: \$168,250

Fringe Benefits

Retirement, Social Security, & Other Fringe:
Year 1: \$35,876.38
Year 2 & 3: \$34,820.13
Prorated Health & Life Insurance Multi-Year Projects (shown for the 2015-2016 year)
\$27,960

Year 1 Total: \$63,836.38
Year 2 Total: \$62,780.13
Year 3 Total: \$62,780.13

Supplies

Paper and pencil supplies	\$65
Sterile needle sharps (approximately 330,000 in total)	\$110,000
Biohazard bins (8 in total)	\$600
Printing of promotional materials	\$3,315

Year 1 Total: \$113,980**Year 2 Total: \$113,980****Year 3 Total: \$113,980****Equipment**

Accounting software and technical support	\$3,200
Mobile unit (food truck style)	\$18,000
4 iPads for data collection	\$2,180
Wrap for food truck	\$4,000

Year 1 Total: \$27,380**Year 2 Total: \$3,200****Year 3 Total: \$3,200****Travel**

In-state travel (at \$0.75 per mile, averaging 450 miles a week)
\$17,550

Project staff to travel to local conference (Kentucky Public Health Association in Owensboro, KY) to present findings and best practices learned through implementation (\$644.40 per year)

Ground transport: 140 miles x \$0.56 federal mileage reimbursement rate \$78.40

2 nights lodging at \$173/night \$346

Registration costs \$220

Total

Year 1 Total: \$17,550**Year 2 Total: \$18,194.40****Year 3 Total: \$18,194.40****Other**

(3) Random-digit dial surveys \$30,000 each
Contract for safe disposal of sharps \$116,500 per year

Year 1 Total: \$146,500**Year 2 Total: \$146,500****Year 3 Total: \$146,500****APPLIED PROGRAM BUDGET (REQUESTING \$550,000)****Year 1 Total: \$549,996.38****Year 2 Total: \$512,904.53****Year 3 Total: \$512,904.53**

BUDGET JUSTIFICATION

Personnel

<u>Stephanie Martin, Project Coordinator</u>	<u>100%</u>	<u>\$50,000</u>
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Martin oversees the Population Health division of NKHD, which takes a broad look at health issues and outcomes impacting the entire community, or large portions of it. The division largely includes community health promotion programs such as HIV prevention, HIV Case Management services, and epidemiology. Martin serves as Chair of the Northern Kentucky Agency for Substance Abuse Policy, is a member of the health task force for United Way of Greater Cincinnati, the Cincinnati Children's Hospital.

As project coordinator Martin will oversee the other program staff in all social marketing campaigns, performance management system, and the overall implementation of the "Exchange Northern KY" mobile unit within the community. Additionally, the project coordinator will be responsible for overseeing the direction of the biostatistician, social marketing specialist, and the IT professional/ software writer, and confirming the completion of their contracted components of the "Exchange Northern KY" program, as well as running the 3-day training session for all program staff.

<u>Jennifer Vance, Program Director</u>	<u>60%</u>	<u>\$30,000</u>
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Vance has held the Director position since January 2007, and oversees a staff of more than 90 employees whom provide preventative care for children and adults in the Northern Kentucky Area Development District. She is active in several community organizations, and previously served as President of the Northern Kentucky Women's Cancer Coalition. Vance is a Registered Nurse and holds a Bachelor of Science degree in nursing from Northern Kentucky University, a certification in Public Health Nursing from the University of Kentucky College of Nursing, and a Master of Nursing (specialty in public health nursing) from the University of Kentucky.

Program director Jennifer Vance will oversee program staff in the planning administration, hiring and training of additional public health nurse (RN) as needed, and graduate students from Northern Kentucky University for participant-facing interactions on the mobile needle exchange unit.

<u>Beth Coleman, Fiscal Manager</u>	<u>6.5%</u>	<u>\$3,250</u>
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Beth will be brought on the "Exchange Northern KY" team as fiscal manager to prepare monthly financial statements and ratios as they relate to our grant funding and daily program expenses. Further duties include maintaining a general ledger, fixed assets, and AP. She will supervise all financial decisions made by program coordinator and staff. Additionally, she is contracted to prep audit work papers and appropriate tax filings.

Her previous accolades in project manager for Lawson Software implementation. She also has extensive experience as the Fiscal Grant Manager providing professional on-site administration of grant programs within Barnstable County Departments, Towns, and Municipalities throughout the region, to ensure that grantees are in compliance with Funders fiscal regulations.

Amanda Hunter, Project Assistant	50%	\$25,000
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Hunter has been working at the Northern Kentucky Health Department (NKHD) for 4 years, and has duties that mainly concern all of the agency's communication efforts, including media relations, employee communications, social marketing communications, and crises communications, as well as all website management. Hunter holds a master's degree in health behavior from the University of Kentucky College of Public Health and is a Certified Communicator in Public Health.

In addition to their roles these overseeing roles, Amanda Hunter and Sue Sanders will serve as project assistants as "on-the-ground" staff within the mobile unit. Both have extensive experience working with multiple local-, state-, and federal-level organizations including Northern Kentucky Area Development District, professional organizations, and community leaders to manage and direct grant efforts, and will ultimately serve as a liaison between "Exchange Northern KY" program staff, the Northern Kentucky Health Department community partners, and the program coordinator and director at the NKHD. The project assistants will be highly utilized in the rigorous testing of the specialized tablet application and reporting system and the entirety of the planning and piloting period of the program.

Sue Sanders, Project Assistant	50%	\$25,000
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Sue Sanders is a retired associate professor, who's teaching and research focus on feminist and multicultural approaches to studying women and families. She is a qualitative methodologist and guided over 40 dissertations that approach the study of couple and family issues qualitatively. Her career includes a ten-year administrative stint as Program Director for the Couple and Family Therapy Masters and Doctoral COAMFTE accredited programs.

Like Amanda, Sue Sanders will serve as a project assistant as "on-the-ground" staff within the mobile unit. Both have extensive experience working with multiple local-, state-, and federal-level organizations including Northern Kentucky Area Development District, professional organizations, and community leaders to manage and direct grant efforts, and will ultimately serve as a liaison between "Exchange Northern KY" program staff, the Northern Kentucky Health Department community partners, and the program coordinator and director at the NKHD. The project assistants will be highly utilized in the rigorous testing of the specialized tablet application and reporting system and the entirety of the planning and piloting period of the program.

TBN, Biostatistician	30%	\$15,000
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A biostatistician of reputable background and experience will be hired to complete all data compilation, and outcome data analysis for the "Exchange Northern KY" Program.

Kim Lapin, Social Marketing Specialist	30% for Y1; 20% for Y2 and Y3	
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Kim Lapin studies how views about decision-makers and decision processes affect perceptions of science and technology (S&T) with potential health or environmental impacts. This social marketing focus includes consideration of both mediated exposure through newspapers, television programs and web content, as well as face-to-face public engagement exercises (e.g., public meetings). Her work emphasizes the need to look at both citizens' perceptions of decision-makers and decision-makers' perceptions of the public. Previous service positions have included chairing both the Science Communication division of the Association for Education in Journalism and Mass Communication, and the Risk Communication division of the

Society for Risk Analysis. She currently serves on the editorial boards of Risk Analysis, the Journal of Risk Research, and Science Communication and provides reviews for a range of other journals and granting organizations.

Kim Lapin will be brought on the “Exchange Northern KY Project to ensure that all printed materials and signage are appropriate to the efforts of the intervention program. As the population of IDUs can be highly varied—primarily linked through shared needle use, rather than demographic—all recruitment flyers, referral materials, and “Exchange Northern KY” branding are scheduled to be assessed by the CAB and social marketing specialist contracted by NKHD during the 6-month planning period for medical accuracy, cultural and lingual appropriateness, and inclusiveness of all possible participant demographics for a targeting approach.

TBN, IT Professional / Software Writer	35% for Y1; 20% for Y2 and Y3
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A senior software writer at Athenahealth, Inc., will be contracted to complete the setup and development of the electronic tablet application software, described in detail below.

Specialized tablet software will be employed when obtaining performance measures within the “Exchange Northern KY” program, via an application installed on the tablet devices, chronicling the number of participants exchanging needles and estimated number of unclean syringes when possible. This data will be able to be collected in real-time during each site’s exchange of unclean injection supplies, and will also have capabilities allowing it to report a running total of unclean sharps collected throughout the mobile unit’s opening hours. This data will be automatically compiled and sent electronically to the program coordinator and grant applicant team, and accordingly assessed every week for the first six weeks of the program, and then every two weeks following the initial 6-week period, to measure for site quality improvement on a continuous basis. Self-report data will also be collected via the specialized tablet application during each participant’s injection supply exchange and will include brief questions regarding gender, ethnicity, age, and recent usage of any needle exchange service.

TBN, Mobile Unit Driver	35%	\$17,500
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A driver of reputable background and experience will be hired to complete all day-to-day driving of the mobile unit for the “Exchange Northern KY” Program.

Fringe Benefits

Retirement, social security and other fringe benefits for the above nine listed personal amounts to \$35,876.38 for Year 1 of implementation, and \$34,820.13 for Year 2 and 3 of project implementation, according to appropriate classification of each personnel member as “staff” or “hourly.”

Prorated health and life insurance for multi-year projects amounts to \$27,960 for each year of implementation, assuming all 6 staff members are enrolled in the family insurance package. If the family package is not appropriate, the staff will receive the spouse or single package, and a budget surplus may occur, to be spent as discretionary funds for additional sterile injection equipment for other program costs.

Supplies

Paper and pencil supplies \$65
To be used as a “backup” data collection method should the electronic tablet application have technical difficulty.

Sterile needle sharps (approximately 330,000 in total) \$110,000
Needles for exchange in the “one-for-one-plus” system on mobile “Exchange Northern KY” unit

Biohazard bins (8) in total \$600
For use in depositing unclean sharps for transit to contracted disposal company.

Printing of promotional materials \$3,315
All associated pamphlets on mobile unit, as well as all referral documents, and advertising materials within the community.

Equipment

Accounting software and technical support \$3,200
Accounting software and specialized tablet application for use in data collection— implementation, management, and technical support throughout implementation process.

Mobile unit (food truck style) \$18,000
Mobile unit housing our program, with room for two passengers behind the service window and one driver. Price varies dependent on available model, but best estimate is the above price for a mid-range sustainable mobile unit.

(4) iPads for data collection \$2,180
Tablet devices to run specialized software package for data collection.

Wrap for food truck \$4,000
Promotional, social marketed display to “wrap” truck, so that its purpose as a mobile needle exchange unit is readily understood and recognized by participants when parked in site locations.

Travel

In-state travel (at \$0.75 per mile, averaging 450 miles a week) \$17,550
Generalized travel of “Exchange Northern KY” mobile unit to and from site locations throughout the week.

Project staff to travel to local Kentucky Public Health Association conference in Owensboro, KY) to present findings and best practices learned through implementation (Total: \$644.40 per year)

Ground transport: 140 miles x \$0.56 federal mileage reimbursement rate = \$78.40

2 nights lodging at \$173/night = \$346

Registration costs = \$220

Other

(3) Random-digit dial surveys \$30,000 each

A random digit dial pre-test phone survey regarding community knowledge of intravenous drug use and its related health concerns will be initialized by the NKHD in order to track change in knowledge of community resources and awareness of the “Exchange Northern KY” program within the Northern Kentucky Area Development District. A similarly designed post-test phone survey will be undertaken after the program has been implemented and functional for six months, as well as again after one year, and compared back to baseline data. Participants in each round of surveys will receive \$5 by mail upon completion of the survey as an incentive for completion.

Contract for safe disposal of sharps \$116,500 per year

Contract with Jupiter Disposal Services to safely pick up and dispose of all needle exchange materials collected within the three year course of program implementation. Jupiter Disposal will collect injection materials every other morning from the NKHD office in which the “Exchange Northern KY” mobile unit will be parked.

APPLIED PROGRAM BUDGET (REQUESTING \$550,000)

Year 1 Total: \$549,996.38

Year 2 Total: \$512,904.53

Year 3 Total: \$512,904.53

**Appendix C – Work Plan
“Exchange Northern KY”**

September 1, 2016 – August 31, 2019

Grantee Name: Northern Kentucky Health Department (NKHD)

Funds Requested: \$550,000

<p>Goal 1: The implementation of the proposed needle and syringe exchange program entitled “Exchange Northern KY” aims to reduce hepatitis C (HCV) incidence within the Northern Kentucky Area Development District, with the secondary outcome of reducing HIV.</p>		
<p>Objective 1: “Exchange Northern KY” aims to capture a reach within the Northern Kentucky Area Development District of 17% to 20% of estimated IDUs within the region, with a 1% increase in participation after one year of implementation.</p>		
<p>Rationale for Objective 1: A comparison of parallel projects in Lexington and Cincinnati (the latter reporting an annual reach of 763 persons in 2014, or a suspected 16% of IDUs), lead NKHD to believe that a reach of 17% to 20% percent of the estimated population of IDUs seems reasonable and achievable given population adjustments.</p>		
<p>Measures of Accomplishment for Objective 1:</p> <ul style="list-style-type: none"> a. Counts of program participants and demographic data will be collected via specialized tablet software in real-time on the mobile unit, at each sit location and assessed by the contracted biostatistician and Program Coordinator. 		
<p>Activities in support of Objective 1:</p> <ul style="list-style-type: none"> a. Electronic measurement and reporting of general number of participants at each site location during each visit will be tabulated. b. Pre- and port-test surveys by telephone to determine awareness of “Exchange Northern KY” program within the community will help further determine reach. 	<p>Person/agency responsible for Accomplishing Activities:</p> <ul style="list-style-type: none"> a. Project Coordinator, Jennifer Martin, NKHD b. Project Assistants, NKHD c. Project Director, Jennifer Vance, Director of Clinical Services, NKHD d. Contracted Biostatistician (TBN) 	<p>Activity Timeline:</p> <ul style="list-style-type: none"> a. Piloting period: specialized tablet software testing and initial tabulation during month-long mobile unit pilot. b. Implementation period: Consistent data collection and assessment by contracted biostatistician and Program Coordinator.

**Appendix C – Work Plan
“Exchange Northern KY”**

September 1, 2016 – August 31, 2019

<p>Objective 2: “Exchange Northern KY” aims to see 10% of its total program participants entering rehabilitation or seeking treatment within the community.</p>	<p>Rationale for Objective 2: One aspect of the comprehensive HCV intervention proposed by “Exchange Northern KY” is the connection of area IDUs with treatment and rehabilitation options within the region, with which they may not already be familiar. This effort aims to ensure that community assets are being utilized effectively, and to that point, that the community is even aware of local services that may benefit themselves or their loved ones.</p>	<p>Measures of Accomplishment for Objective 2:</p> <ol style="list-style-type: none"> Achievement of the 10% of participant entering treatment will be tracked by entry into the healthcare system via on-site referrals to ancillary community services. 	<table border="1"> <tr> <td data-bbox="760 182 1036 758"> <p>Activities in support of Objective 1:</p> <ol style="list-style-type: none"> An exhaustive list of quality accredited ancillary service will be compiled and approved by the CAB. Printing of promotional materials regarding treatment, to be accessed on the mobile unit. Random digit dial surveys will be employed to track changes in awareness of “Exchange Northern KY” and other treatment services within the community. Entry into the healthcare system will be tracked and assessed by the contracted biostatistician and Project Coordinator. </td> <td data-bbox="760 758 1036 1339"> <p>Person/agency responsible for Accomplishing Activities:</p> <ol style="list-style-type: none"> Project Coordinator, Jennifer Martin, NKHD Project Assistants, NKHD Project Director, Jennifer Vance, Director of Clinical Services, NKHD Community Advisory Board (CAB) Contracted Biostatistician (TBN) </td> <td data-bbox="760 1339 1036 1785"> <p>Activity Timeline:</p> <ol style="list-style-type: none"> Piloting period: careful consideration of referral treatment and rehabilitation services, and assessment by CAB. Implementation period: tracking of program participants referred by mobile unit to ancillary services, and associated trends. </td> </tr> </table>	<p>Activities in support of Objective 1:</p> <ol style="list-style-type: none"> An exhaustive list of quality accredited ancillary service will be compiled and approved by the CAB. Printing of promotional materials regarding treatment, to be accessed on the mobile unit. Random digit dial surveys will be employed to track changes in awareness of “Exchange Northern KY” and other treatment services within the community. Entry into the healthcare system will be tracked and assessed by the contracted biostatistician and Project Coordinator. 	<p>Person/agency responsible for Accomplishing Activities:</p> <ol style="list-style-type: none"> Project Coordinator, Jennifer Martin, NKHD Project Assistants, NKHD Project Director, Jennifer Vance, Director of Clinical Services, NKHD Community Advisory Board (CAB) Contracted Biostatistician (TBN) 	<p>Activity Timeline:</p> <ol style="list-style-type: none"> Piloting period: careful consideration of referral treatment and rehabilitation services, and assessment by CAB. Implementation period: tracking of program participants referred by mobile unit to ancillary services, and associated trends.
<p>Activities in support of Objective 1:</p> <ol style="list-style-type: none"> An exhaustive list of quality accredited ancillary service will be compiled and approved by the CAB. Printing of promotional materials regarding treatment, to be accessed on the mobile unit. Random digit dial surveys will be employed to track changes in awareness of “Exchange Northern KY” and other treatment services within the community. Entry into the healthcare system will be tracked and assessed by the contracted biostatistician and Project Coordinator. 	<p>Person/agency responsible for Accomplishing Activities:</p> <ol style="list-style-type: none"> Project Coordinator, Jennifer Martin, NKHD Project Assistants, NKHD Project Director, Jennifer Vance, Director of Clinical Services, NKHD Community Advisory Board (CAB) Contracted Biostatistician (TBN) 	<p>Activity Timeline:</p> <ol style="list-style-type: none"> Piloting period: careful consideration of referral treatment and rehabilitation services, and assessment by CAB. Implementation period: tracking of program participants referred by mobile unit to ancillary services, and associated trends. 				

**Appendix C – Work Plan
“Exchange Northern KY”**

September 1, 2016 – August 31, 2019

<p>Objective 3: In the long-term program outcomes, “Exchange Northern KY” intends to see a 5% reduction in hepatitis C (HCV) incidence within the Northern Kentucky Area Development District.</p>	<p>Rationale for Objective 3: While this long-term outcome may not feasibly be observed within the scope of this grant, the efforts of “Exchange Northern KY” are intended to impact HCV incidence within the region, with the secondary outcome of a reduction in HIV.</p>	<p>Measures of Accomplishment for Objective 3: a. HCV incidence data will be measured via state and federal data sources, like the state health department, CDC, and SAMHSA. As federal data often lags behind state data by a year or more, findings will be loosely substantiated until data collection is complete and has been appropriately assessed.</p>	<p>Activities in support of Objective 3: a. Analysis of federal and state HCV data, previous to and after implementation of “Exchange Northern KY” initiative within the region.</p> <p>Person/agency responsible for Accomplishing Activities: a. Project Coordinator, Jennifer Martin, NKHD b. Project Director, Jennifer Vance, Director of Clinical Services, NKHD c. Contracted Biostatistician (TBN)</p> <p>Activity Timeline: a. Piloting period: careful assessment of baseline HCV data. b. Implementation period: careful assessment of baseline HCV data. c. Sustainability period: loosely substantiated findings are communicated back to funder and area community organizations; appropriately substantiated when full data set is released.</p>
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