A Data-Driven Response to the Addiction Crisis in Hamilton County, Ohio

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ABSTRACT

Context: For more than a decade, the state of Ohio has been an epicenter of the opioid crisis. Multiple interventions have been deployed to address this crisis and reduce opioid overdoses and overdose deaths in the state. The Hamilton County Addiction Response Coalition (HC ARC) and its strategic, countywide prearrest diversion (LEAD) and deflection (QRT) programs have been at the forefront of this effort in Cincinnati, Ohio. Operating since April 2018, these programs have continued to grow and improve and have been successful in connecting hundreds of citizens to needed treatment and other social services.

Program: HC ARC combats overdoses and overdose deaths by utilizing cross-sector planning and collaboration to operate 2 countywide programs: Quick Response Team (QRT) and Law Enforcement Assisted Diversion (LEAD).

Implementation: The QRT and LEAD programs leverage partnerships with law enforcement, public health, addiction and mental health services, reentry services, and trained peer supporters. The QRT emphasizes triage, assessment, and connection to appropriate services for people with recent nonfatal drug overdoses and provides outreach and education in hot spot communities. LEAD provides diversion from the criminal justice system into long-term case management for non-violent individuals with low-level offenses who also struggle with substance use disorder, mental health, homelessness, and/or poverty.

Evaluation: QRT and LEAD team members routinely track and record client contacts and outcomes using a centralized electronic case management platform. Data are extracted and analyzed by the evaluation team to examine indices of program success and provide ongoing feedback to the QRT and LEAD teams.

Discussion: HC ARC has implemented, tested, expanded, and now standardized its prearrest diversion programming. It has built a sustainable model to improve health and health equity for marginalized individuals whose needs intersect across health care, public health, community-based social services, and the criminal-legal system. Collectively, this work offers a guide for implementation and best practices for the following: detailed planning, policy, and procedure development; identification of key leaders and community partners; and methods to evaluate program operations to make data-driven decisions and real-time program adjustments.

KEY WORDS: deflection, diversion, overdose response
S
ince 1999, the United States has been experience
ning an overdose epidemic that has claimed
the lives of nearly 1 million people. In contrast to
current to failed policies that criminalized substance use,
there has been a slow but increasing shift over the
last 2 decades to manage addiction at the commu-
nity level and with a public health lens. In Ohio, one
of the main epicenters of the opioid epidemic, policy
makers and practitioners have mobilized to develop
innovative ways to reduce overdoses and overdose
deaths. In Hamilton County (Cincinnati, Ohio), this
effort has been centralized and coordinated by the
Hamilton County Addiction Response Coalition (HC
ARC), a collaborative coalition of public health, law
enforcement, hospitals, community leaders, members
of the faith community, first responders, treatment
providers, peer recovery specialists, and elected and
administrative officials in local, state, and federal
governments. Presently, 49 distinct cities, villages, and
townships are all working together to address this
public health crisis.

Leveraging the expertise of members across 6
subcommittees—Treatment, Harm Reduction, Pre-
vention, Interdiction, Faith Community, and Business
Community, HC ARC has been the incubator for in-
novative strategies. Chief among these efforts have
been 2 programs—the Quick Response Team (QRT)
and Law Enforcement Assisted Diversion (LEAD). In
this article, we first provide detail about these pro-
grams and how they are operationalized in Hamilton
County. We then describe the infrastructure of coor-
dinated data collection, access, and sharing that has
facilitated the implementation and success of these
programs. Finally, we discuss how our data collec-
tion efforts and data-driven decision making improve
the work we do at HC ARC, contribute to the emerg-
ing science on deflection programs, and facilitate the
sustainability of our own deflection programs and, by
default, those around the country.

Quick Response Team

QRTs are multidisciplinary deflection programs that
typically provide overdose follow-up, engagement,
“in-home” triage, and assessment. Traditional QRT
models are considered deflection because they do not
require individuals to have violated a law for interven-
tion to occur. Furthermore, a chief aim of deflection
is to intervene in time to deflect individuals to pub-
lic health and other social services precisely so that
they do not later come into contact with the criminal-
legal system. QRTs are also traditionally overdose
response models, in which outreach and engagement
occur after a nonfatal overdose. However, there is
wide heterogeneity among deflection programs that
call themselves QRTs, and some (including HC ARC’s
recently expanded QRT) also entail outreach in commu-
nities and settings where people are at a greater
risk of drug use, trafficking, and/or overdose (eg,
specific neighborhoods, jail, court). Although they
all vary substantially in their organization and oper-
atons at present, QRTs share the chief goal of
connecting people to the most appropriate treatment
specific to their treatment needs. This varies for each
individual and can range from peer support groups
(ic, Narcotics Anonymous) to detoxification, harm
reduction, or inpatient services.

The first QRT of its kind was created in Hamilton
County, Ohio—in Colerain Township in the summer
of 2015. A second QRT was formed in the county
shortly thereafter in Norwood in 2016. In 2017, the
Hamilton County Board of County Commissioners
received a Comprehensive Opioid Abuse Site-based
Program (COSSAP) category 3 grant from the Bureau
of Justice Assistance (BJA) to expand QRT to all ju-
risdiction in Hamilton County. The countywide QRT
was launched in April 2018 and operated 2 days per
week until the close of the BJA COSSAP grant in fall
2021. Before the end of this grant period, HC ARC ap-
plied for and successfully received an expansion grant
in 2020, allowing the countywide QRT to conduct its
work full-time and engage in both overdose response
and proactive outreach efforts.

The countywide QRT, which has oversight from
HC ARC, is a law enforcement–led QRT. Contracted
law enforcement personnel from 3 different law en-
forcement jurisdictions work closely with trained peer
recovery support specialists. Initial outreach by the
QRT to those who have had a nonfatal overdose oc-
curs within 2 to 7 days of the recorded overdose. On a
typical day, 2 to 3 QRT members comprising at least 1
peer navigator and 1 nonuniformed law enforcement
officer arrive together at the homes or last known ad-
dresses of the person who recently overdosed. If this
person is not home or declines to speak with the QRT
at the time, the team leaves business cards and in-
formation about services available in the community.
Team members also attempt to contact the individual
via phone and social media when physical addresses
are either unavailable or incorrect/outdated. Policy
dictates that the QRT makes a minimum of 3 contact
attempts with each person.

Upon successful engagement, and if the individual
expresses interest and willingness to receive QRT ser-
ices, the QRT then works toward one of 2 chief
proximal goals: referral to treatment or connection to
treatment. Referral involves not only providing the in-
dividual with information about the treatment agency
and services and the agency’s contact information but
also ensuring that someone from the treatment agency
is aware of and expecting the client at their facility. Thus, both parties are well informed of the other and have an open line of communication formed. Connection to treatment typically involves helping the individual secure an intake appointment with a treatment provider and/or a warm handoff to treatment. In some cases, the QRT will even transport the individual to the treatment provider or agency.

QRT engagement with clients can be as short as one interaction (ideally ending in transporting the individual to treatment services) or engagement can last several weeks. In part, because there is a constant influx of new nonfatal overdoses referrals, and in part because the chief goal of the QRT is referral or connection to treatment, the QRT does not track or work with individuals beyond the connection or referral stage. However, HC ARC is able to access midrange client outcomes of treatment attendance for individuals engaged in publicly funded (ie, Medicaid) substance use treatment services, courtesy of data provided by the Hamilton County Mental Health and Recovery Services Board.

From April 2018 through August 2021, the QRT received a total of 946 inbound referrals. More than half (58%) of the individuals successfully contacted by the QRT have been referred or connected to recovery support services. Of those, 66% successfully accessed and engaged in services, as evidenced by billing records from the Hamilton County Mental Health and Recovery Services Board. Since the QRT expansion to include more working days, more staff members, and proactive outreach, the QRT is able to serve significantly more individuals in the community. In just a 4-month period, from September 2021 through December 2021, the QRT received a total of 611 inbound referrals—nearly 65% of all total referrals received in the 3 years prior combined.

**Law Enforcement Assisted Diversion**

Based on the success of the QRT in Hamilton County, HC ARC applied for and received a $500,000 COS-SAP award in 2018 to pilot the LEAD initiative in Cincinnati Police Department’s District 1 and Central Business District in downtown Cincinnati. The LEAD initiative was initially designed to complement the QRT by allowing law enforcement to divert individuals with low-level nonviolent offenses who have unaddressed addiction, mental illness, or homelessness away from the criminal justice system and into supportive services. Since its launch, LEAD has been able to expand its operations to Norwood and Colerain Township—2 additional jurisdictions in the county—and to morph into a dual-diversion/deflection program.

The original diversion-based LEAD model was developed in 2011 in Seattle, Washington, as a harm-reduction approach for responding to low-level offenses committed by people who struggle with addiction. Over a 10-year period, LEAD programs have now been adopted and/or are operational in nearly 60 jurisdictions across the United States and in the United Kingdom and South Africa. LEAD’s core model is “a community-based diversion approach with the goals of improving public safety and public order, and reducing unnecessary justice system involvement of people who participate in the program.” LEAD can be adopted and implemented in different ways depending on the jurisdiction’s needs. Because it is a program with a growing, but established, evidence base, the LEAD model is more structured than QRT, with specific fidelity measures that guide its implementation.

In Hamilton County, HC ARC has worked closely with the LEAD National Support Bureau to implement its LEAD activities with fidelity to the national model. The Hamilton County LEAD pilot program has an operating structure comprising members of the Policy Control Group (PCG) and Operations Work Group (OWG). The PCG is made up of the Office of the City Manager, Hamilton County Administrator, HC ARC, Office of the Solicitor, Cincinnati Police Department, Public Defender’s Office, Ohio Justice and Policy Center, and the Office of Reentry, which is the governing body of the LEAD initiative. The OWG consists of the program administrator, police department personnel, the LEAD case management team, a representative from the prosecuting attorney’s office, and representatives from the treatment community. The OWG meets weekly to discuss new referrals, provide updates on any current LEAD clients, and determine necessary treatment goals regarding them.

People are eligible for LEAD in Hamilton County if they are homeless, use substances, or have a mental illness and have committed one of 5 low-level eligible offenses or if they are known by law enforcement or other professionals to struggle with these social and health challenges and may thus benefit from LEAD. As such, LEAD clients in Hamilton County are classified as either “diversion” or “social contact” (ie, deflection) accordingly. Diversion occurs when a law enforcement officer responds to a crime or call for service, determines an individual meets LEAD eligibility criteria, and provides a warm handoff to the LEAD case management team. LEAD case managers, in turn, conduct an immediate needs screening to determine what the individual needs in the next 24 to 48 hours. The screening assesses safety factors until they can complete a full psychosocial assessment and be connected to recovery supports. For diversions, the
Data Collection and Sharing Infrastructure in QRT and LEAD

Data collection and sharing have been integral to the success of Hamilton County’s deflection programs. The strong partnerships forged between agencies through their involvement with HC ARC have facilitated these efforts substantially. In this section, we describe the infrastructure that HC ARC has in place to promote data collection and sharing and how these efforts have aided in the implementation and improvement of the county’s deflection programs.

Three entities have helped streamline data collection and sharing efforts: the Greater Cincinnati Fusion Center; Cordata Healthcare Innovations, LLC; and the University of Cincinnati School of Criminal Justice evaluation team. First, the Fusion Center was originally created to help with counterterrorism efforts and now serves as an information and data hub, routinely assisting law enforcement with intel on individuals who are suspected of, or who have committed, a crime. When law enforcement responds to a scene of an overdose, information for the individual who overdosed is recorded and reported to the Fusion Center. Because the Fusion Center also has access to numerous countywide databases and systems, it is also able to efficiently and accurately retrieve contact information (last known address, phone number, next of kin) for these individuals. Partnership with the Fusion Center has been fundamental to the QRT’s operations. The Fusion Center is responsible for compiling a weekly list of people with nonfatal overdose in the county. Because the Hamilton County QRT is law enforcement led, the QRT officer has access to location information of those who overdosed, allowing the QRT to find and connect with individuals in a timely manner.

The second major entity supporting both the QRT and LEAD is Cordata Healthcare Innovations, LLC, a Cincinnati-based software company. It has developed a data collection platform specifically for interdisciplinary deflection initiatives such as LEAD and QRT. Team members use this platform routinely as a workload management tool. They record clients’ demographic and contact information, dates and outcomes of communications with clients and other parties (eg, family members, treatment providers), and relevant case management information such as client support systems and individual needs. The system also allows teams to update the client status and track clients’ progress in relation to the deflection team goals and activities. Access to the platform is secure, limited to key team members of the deflection programs and managed by HC ARC, and can be easily accessed in the field via tablet or laptop.

The QRT and LEAD programs have greatly benefited from the Cordata platform. It serves as a conduit for holding team members accountable for consistent and accurate accounting of their efforts. The Cordata platform allows team members to keep better track of the program clients and their progress. Utilizing built-in features, team members can visually see how many clients are in each stage of the program, how many (and who) need follow-up, and what kind of...
follow-up is needed to advance clients through to the next step. Importantly, the evaluation team can easily access a wide variety of data points to not only examine program efforts and client outcomes but also explore potential mechanisms of the program effects, such as dosage of contact with QRT or LEAD teams or types of outbound referrals.

The final key piece of the data infrastructure puzzle is the evaluation team from the University of Cincinnati and their close collaboration and integration with the QRT and LEAD teams. The evaluation team has been at the table from the start, working with the teams in a hands-on and dynamic way. Evaluators attend team meetings and conduct site visits or ride-alongs to keep their pulse on the day-to-day operations of the teams. They train new team members on the importance of accurate and consistent data collection and record-keeping efforts for sustaining the program in the long term. The evaluation team partnered with Cordata to customize the platform for each team and train team members in use of the software. Routinely, evaluators also leverage their content area expertise to share insights and suggestions with the teams. Finally, they provide analysis of the data beyond reporting requirements and routinely summarize the data and offer data-driven recommendations and feedback to the teams.

**Data-Driven Quality Assurance and Improvement**

Routine and accurate data collection and data sharing promote continued quality assurance and improvement among the Hamilton County deflection teams. At one point, for example, the QRT triangulated county overdose data with Fusion Center lists and discovered that a significant number of people who experienced a nonfatal overdose were being missed by the QRT because emergency medical services responded to the overdose instead of law enforcement and therefore the individuals were not included on the Fusion Center lists. Once the Cincinnati Fire Department shared its overdose data with the QRT, the QRT was able to conduct outreach to all known.reported overdoses in the county. This created more equity in access to this program across the county and allowed the QRT to reach more people and get them connected to services.

Data have been used to help teams determine whether they are being consistent with established policies and procedures. For instance, analysis of outreach contacts let QRT members know whether they were adherent to the “3 contact attempt” rule for all referrals. Likewise, a quick analysis on the time lapse between inbound referrals, screening, and assessment has helped LEAD members see whether they are completing their protocols in the proscribed timeframes.

Finally, ongoing tracking of client outcomes and timely communication of those outcomes have provided a feedback loop to teams, helping diagnose workflow problems or other areas needing change or improvement. As one example, in first years of the QRT, team members stopped attempting to contact individuals who either expressed they did not want services or could not be reached after 3 contact attempts. Data of individuals with repeat overdoses and therefore repeated “first” contact attempts from the QRT signaled a problem with this strategy. We found that some individuals who were helped by the QRT on the most recent attempt had previously declined services or were unable to be located on prior overdose outreach attempts. The QRT used this information and changed its procedures to now retain all “refusal” and “unable to locate” clients on an active list, rather than close their case out in the system. We worked with Cordata to set up alerts in the system to follow up with these hard-to-reach individuals at 30, 60, and 90 days after the initial 3-try attempt protocol.

**Sustainability of HC ARC’s Deflection Programs**

Data-driven decision-making at all levels and phases of HC ARC’s deflection programs has provided a tremendous boost to ensuring their sustainability. Data have helped us identify the problems in our county, tell the story of our programs, tout our successes, and learn from our challenges. Data have allowed us to be transparent with stakeholders, reassuring them that resources are being allocated and utilized in agreed-upon ways. Data have helped convince policy makers and the public alike about the importance of these programs. Importantly, data have informed the enhancement and expansions of our existing programs, allowing us to reach more Hamilton County citizens requiring assistance with their health and well-being concerns.

**Advancing the Science of Deflection**

In both the public health and criminal justice arenas, deflection programs are relatively new to the field of substance use prevention and intervention. Therefore, the evidence base on their effectiveness is small and limited. As deflection programs proliferate, evaluation teams and researchers must do their part to advance the evidence base for these interventions. These programs hold much promise for changing the way in which communities manage issues such as substance abuse, mental illness, and homelessness. HC ARC’s programs have adopted practices and procedures that
### Implications for Policy & Practice

- Timely, transparent, and collaborative knowledge and data sharing among a wide range of stakeholder groups can facilitate the successful implementation of diversion and deflection programs.
- Consistent and accurate data collection can be used to inform quality assurance and improvement efforts and support the sustainability of deflection programs.
- Robust data collection and evaluator-practitioner partnerships will be central to establishing an evidence base around newer and emerging deflection programs.

have been shown to be effective in other contexts and settings—for example, through systematic data collection, application of principles recommended by the national LEAD Bureau, and practices that facilitate rapport and increase motivation with individual clients. The ongoing process and outcome evaluations of both programs, and the examination of proximal/immediate, midrange, and distal outcomes, will determine whether, how, and to what extent they work to achieve their main objectives.

In Hamilton County, the QRT and LEAD teams’ commitment to robust, accurate, and complete data collection will provide useful insights into how these programs operate, what the “active ingredients” are that drive their effectiveness, and what their potential and limits are for affecting change in individual lives and in the broader community. By collecting clients’ short-term outcomes tied directly and proximally to program operations such as referral or connection to treatment, midrange outcomes such as treatment attendance, and long-term outcomes such as criminal recidivism and re-overdose, our programs can help provide a sense of the scope of the QRT’s and LEAD’s reach and impact. We hope our work—and the data gathered and examined from it—can benefit efforts to inform and improve other existing programs and to develop data-driven recommendations that can help create standards for different types of deflection programs, especially the QRT.

### Discussion and Conclusion

At peak overdose levels in 2017, Ohio ranked fifth in the nation for overdose deaths, with nearly 36 deaths per 100,000 inhabitants. With HC ARC already formed and functioning, the countywide QRT had the infrastructure and resources in place to be implemented quickly and efficiently and make an impact. LEAD and other initiatives followed closely behind. From 2019 to 2020, while the state had an almost 25% increase in overdose deaths, Hamilton County saw an 11% decrease. Current efforts are underway to estimate the impact HC ARC’s programs have had on this decrease. In addition, our ongoing data collection efforts and data-driven decision-making will allow us to better understand how our HC ARC deflection programs help individual lives and improve our community.

### References

1. Centers for Disease Control and Prevention. Understanding the opioid epidemic. [https://www.cdc.gov/opioids/basics/epidemic.html](https://www.cdc.gov/opioids/basics/epidemic.html). Accessed January 27, 2022.
2. LEAD Bureau. [https://www.leadbureau.org](https://www.leadbureau.org). Accessed February, 2022.
3. Clifasefi SL, Lonczak HS, Collins SE. Seattle’s Law Enforcement Assisted Diversion (LEAD) program: within-subjects changes on housing, employment, and income/benefits outcomes and associations with recidivism. *Crime Delinq*. 2017;63(4):429-445.
4. Collins SE, Lonczak HS, Clifasefi SL. Seattle’s Law Enforcement Assisted Diversion (LEAD): program effects on recidivism outcomes. *Eval Program Plann*. 2017;64:49-56.
5. Collins SE, Lonczak HS, Clifasefi SL. Seattle’s Law Enforcement Assisted Diversion (LEAD): program effects on criminal justice and legal system utilization and costs. *J Exp Criminal*. 2019;15(2):201-211.
6. Perrone D, Malm A, Magaña EJ. Harm reduction policing: an evaluation of Law Enforcement Assisted Diversion (LEAD) in San Francisco. *Police Q*. 2020:1-26.