FINAL REPORT
FOR THE 2ND
ALTERNATIVE RESPONSE FOR COMMUNITY HEALTH (ARCH-2)
PILOT PROGRAM

MARCH 2023 - MAY 2023

TABLE OF CONTENTS

EXECUTIVE SUMMARY

Alternative Response for Community Health (ARCH) is a 911 community response unit that initiated its second pilot program in March 2023. This experimental program is designed to place community paramedics and licensed clinical social workers in the "margins" of 911 operations, responding to 911 requests alongside and sometimes in place of traditional first responders.

ARCH is designed to **connect individuals within the 911 system with the most-appropriate resources** as well as **keep emergency responders available within the community by assuming responsibility of low-acuity emergency incidents**.

ARCH-2 was an expansion of the ARCH-1 pilot program. Whereas ARCH-1 was operational for 2 days a week, ARCH-2 significantly expanded staffing and hours, operating Monday through Friday from 7am to 5pm.

The primary goal of ARCH-2 was to increase our presence within the 9-1-1 system and give consistency to our response, allowing other emergency responders to become better acclimated to a consistent ARCH presence and become more familiar with our capabilities.

Furthermore, ARCH-2 allowed the city to hire two licensed clinical social workers (LCSWs) to ride along and gain valuable experience alongside the LCSW contractors that have participated in both pilot programs and whose contract ended at the conclusion of ARCH-2. This overlap of personnel allowed valuable experience and education to take place between contract and city staff to maintain continuity of services to the community.

ARCH Pilot Dates:

ARCH-1 - Tuesdays & Wednesdays, 10am - 8pm
July 26th, 2022 - Sept 14th, 2022 (16 Shifts)

ARCH-2 - Monday through Friday, 7am - 5pm
March 13th, 2023 - May 5th, 2023 (40 Shifts)

MISSION AND VISION

Mission Statement

Independence Alternative Response for Community Health (ARCH) responds on 911 events to advocate for the needs of the individual, seeking incident resolution that both minimizes first responder responsibility for low-acuity emergency events as well as reducing barriers to appropriate assistance for the individual within the 911 system.

Vision Statement

To explore 911 response for opportunities where non-traditional emergency response resources can provide most-appropriate, person-centric solutions to both first responders and community members in crisis situations.

KEY PERFORMANCE INDICATORS

PROGRAM OBJECTIVE

"To keep emergency responders available within the community by diverting them from low-acuity emergency response."

WHY IT'S IMPORTANT

- Reduces maintenance and operational costs (in particular with fire apparatus).
- Increases unit availability for other emergency responses, as well as reducing situations where no emergency units are available.
- Increases down time for emergency responders in-between other responses.

LIMITATIONS

- Diversions keep emergency units available in the community and decreases operational "wear-and-tear" costs on equipment and personnel. This value is clear but can be difficult to quantify in terms of cost and time savings per response, as discussed below.

CANCELLED ENROUTE

Emergency units were dispatched but released/cancelled from the response by ARCH

17 Ambulances | **18 Fire Apparatus** | **8 Police Units**

RELEASE FROM SCENE

Emergency units arrived at an incident but were released from the scene due to ARCH presence.

8 Ambulances | **11 Fire Apparatus** | **25 Police Units**

FULL DIVERSION

Emergency units were not dispatched to an incident due to ARCH response.

28 Ambulances | **39 Fire Apparatus** | **56 Police Units**

ARCH-2 accumulated a total of **210** Emergency Unit Diversions (Cancelled, Released or Not Dispatched). This results in an average of 5.25 Emergency Unit Diversions per ARCH shift, or 1 every 2 hours.

It is exceptionally difficult to give an accurate estimate of what each time-on-call would have been for the diverted Fire, Police and EMS units, especially as some diversions represent units that were already responding or on-scene. If we conservatively estimate that each diversion resulted in 15 minutes of otherwise occupied time, this would mean that ARCH diversions resulted in an estimated **increase of 52.5 hours** of emergency services coverage.

KEY PERFORMANCE INDICATORS

PROGRAM OBJECTIVE

"Reducing barriers to appropriate assistance for the individual" by providing access to Alternative Destinations (ADs) as a more effective and appropriate option than an emergency room visit.

WHY IT'S IMPORTANT

- Gives the community member rapid access to a specialty facility/resource that is low-impact and more appropriate than an ER visit.
- Decreases Emergency Room usage for low-acuity events, which reduces ER overcrowding and medical staff overburdening.

LIMITATIONS

- It is impossible to "prove" that an ER visit would have occurred had ARCH not been present. ARCH was conservative in determining if an ER diversion occurred.
- Alternative Destination locations are growing but are often still limited in their intake criteria, inpatient services and hours of service.

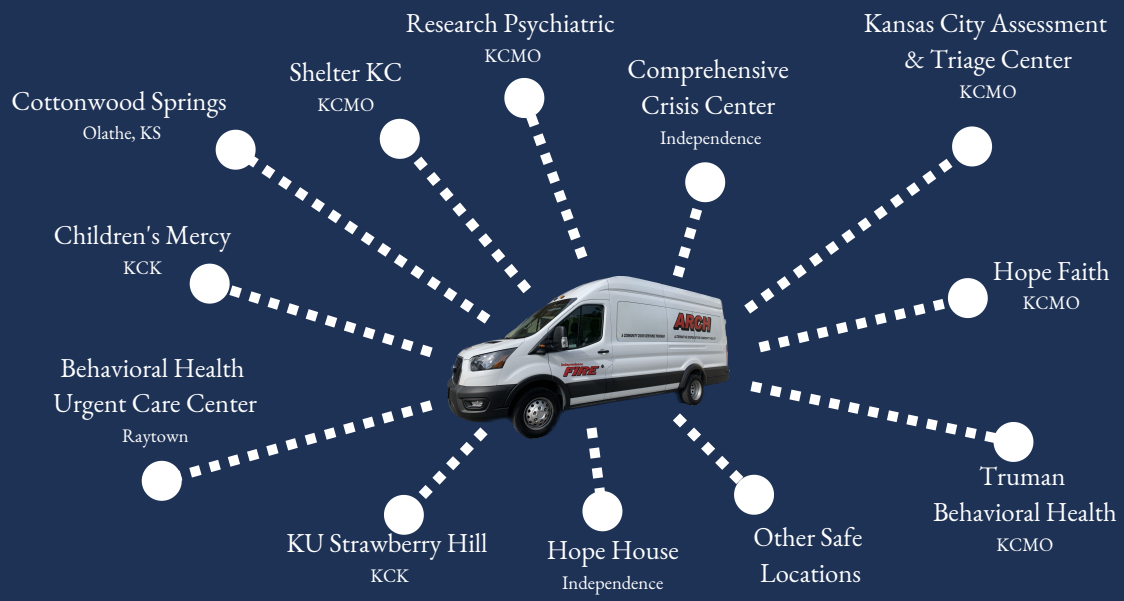
EMERGENCY ROOM DIVERSION

There were **22** instances where, without ARCH intervention, there existed a high likelihood or stated intention that a community member would have sought local emergency room care.

A recent study in the Annals of Emergency Medicine* noted an overall median ER length of stay for a mental health event of 10.92 hours. Using this estimate, ARCH-2 ER diversions have resulted in a collective **reduction of 240.24 hours** of occupied community ER bed space.

Over the course of 40 days, ARCH averaged 1 ER diversion every 20 hours of operation.

**Pearlmutter, M. D., Dwyer, K. H., Burke, L. G., Rathlev, N., Maranda, L., & Volturo, G. (2017). Analysis of emergency department length of stay for mental health patients at Ten Massachusetts emergency departments. Annals of Emergency Medicine, 70(2). https://doi.org/10.1016/j.annemergmed.2016.10.005*



KEY PERFORMANCE INDICATORS

PROGRAM OBJECTIVE

To "respond on 911 events to advocate for the needs of the individual, seeking incident resolution" by providing on-scene interventions & care best suited to the circumstances.

WHY IT'S IMPORTANT

★ Shows depth & degree of ARCH on-scene interaction & resources provided.

LIMITATIONS

★ Not an indicator of outcomes. It is exceptionally challenging to determine what is a "successful" short-term outcome in the context of long-term mental & physical health.

KEY PERFORMANCE INDICATORS

SUPPORT/BUILDING RAPPORT

Meaningful contact with an individual via 911 response. Individual history-taking and assessment of the situation. Individual is willing to communicate and share about their circumstances.

108 out of 123 responses that had client contact, for a 87% completion rate.

PASSIVE CONNECTION TO RESOURCES

Passive connection with resources, including phone numbers, flyers and "cold" referrals.

19 out of 123 responses that had client contact, for a 15% completion rate.

ACTIVE CONNECTION TO RESOURCES

Direct communication with resources, including a "warm" referral/handoff.

25 out of 123 responses that had client contact, for a 20% completion rate.

COMMUNITY MEMBER TRANSPORT

Physically transporting an individual from one location to another for non-emergency assistance, resources or to a safe location.

29 out of 123 responses that had client contact, for a 23% completion rate.

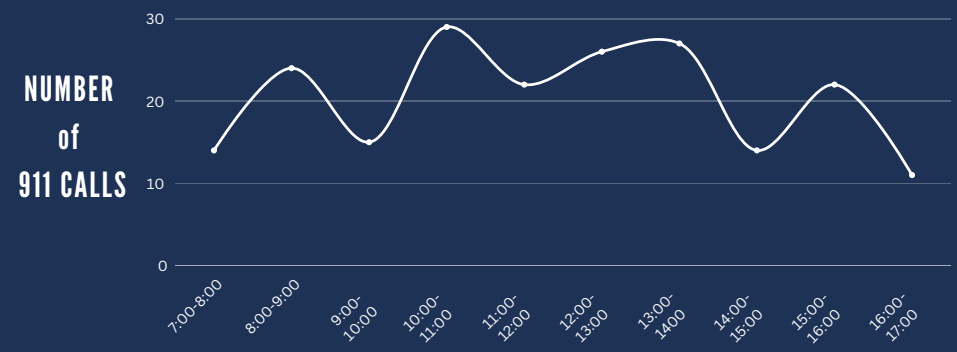
MENTAL HEALTH CLINICAL ASSESSMENT

An on-scene mental health assessment, by/or under the direct supervision of a licensed clinical social worker, for behavioral signs and symptoms of clinical psychosis, alterations in thinking or diminished mental health capacity. Primarily for the purpose of reducing immediate stressors and determining appropriate resources for client.

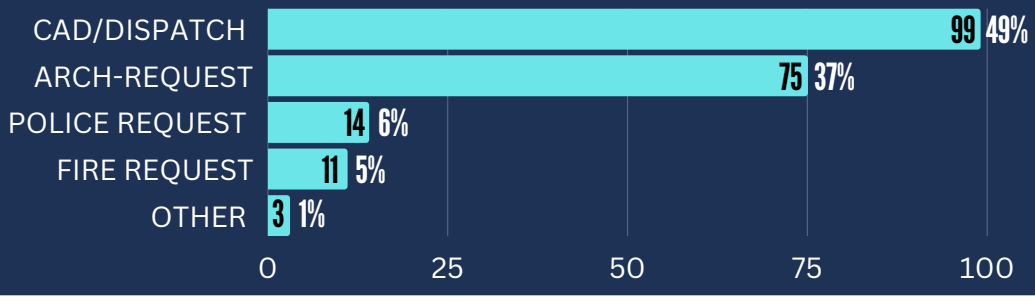
41 out of 123 responses that had client contact, for a 33% completion rate.

OTHER PERFORMANCE DATA

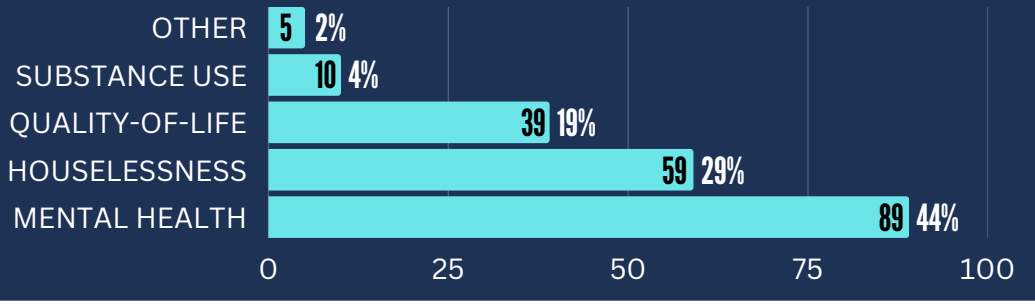
CALL VOLUME based on TIME OF DAY



9-1-1 DISPATCH METHOD



NATURE of 9-1-1 RESPONSES



ARCH responded on 202 emergency calls, making individual contact on 123 of those calls.

Of those 123 contacts, ARCH spent an average of 27:34 minutes on each call.

~~~

ARCH averaged 5 emergency responses per shift, or 1 response every 2 hours.

~~~

ARCH completed 95 in-person or phone follow-ups separate of the above data to ensure community members were connected with appropriate resources following a 9-1-1 interaction.

Including follow-up responses, ARCH had 297 total incidents, resulting in an average daily workload of 7.4 incidents per shift.

~~~

ARCH responded on 45 emergency incidents involving a community member 21 or younger.
~~~

ARCH & 988 Suicide Crisis Lifeline

988 is the three-digit nationwide phone number to connect directly to the **Suicide Crisis Lifeline.** 988 callers are connected to a mental health professional employed by local mental healthcare organizations that can provide immediate assistance up to and including sending a mental health responder to the scene, depending on location and time of day. 988 crisis responders operate independently of 911 services and respond only when specifically needed through 988.

Local mental healthcare providers staff these 988 call centers and response teams. In the event that a 988 call involves life safety or is an immediate emergency, the call is transferred to the local 911 dispatch center. ARCH has responded as a part of this 911 response.

988 crisis responders respond separate of 911 response when specifically requested through 988. ARCH responds alongside and sometimes in place of 911 emergency units because we recognize how often mental health, quality of life or other community concerns are a factor in 911 events.

SUCCESS STORIES

ARCH engaged with a community member who had utilized 911 multiple times for low-acuity medical concerns. ARCH providers facilitated medical care, medicine and food support for this individual, with 9-1-1 requests dropping to zero thereafter.

ARCH identified several elderly vulnerable community members through a referral from emergency services. ARCH made contact with and visited those individuals as they experienced significant life changes and illness, ensuring they had connections to essential items like food and medications. Circumstances that likely would have generated 911 requests were mitigated by proactive visits and ensuring that basic needs were met during unusually difficult circumstances.

During a 911 call for mental health concerns, ARCH providers were able to release other emergency responders and provide an immediate, on-site mental health assessment. Both ARCH and the individual decided that the best immediate outcome was simply returning home. ARCH provided transport back to their residence and ensured they had access to local mental health resources as needed.

ARCH providers responded to a community member with suicidal thoughts. This individual was afraid to get “locked up” or “in trouble”. ARCH was able to release emergency units from the scene and provide an immediate on-scene mental health assessment followed by voluntary transport to a local mental health crisis center. In-person follow-up by ARCH providers found the individual received significant medication changes and was back at home with a significantly improved outlook. Incidents like this allow ARCH to connect community members to the best available resource while also reducing ER use for low-acuity needs.

ARCH was requested to a medical scene to evaluate a young adult who was reporting mental health issues. During response, ARCH was made aware that there was only 1 available ambulance in the city due to high call volume. ARCH staff was able to evaluate the individual, including performing a mental health assessment on-scene, and recommend transport to an Alternative Destination. The community member was transported by ARCH, and the ambulance was released for city coverage.

ARCH responded to an elderly community member living alone who was consistently making 911 calls. ARCH mental health providers identified both medical and mental health concerns. ARCH providers coordinated with family to meet the individual's needs as well as proactively "checked-in" with this community member on several occasions to ensure that progress was being made.

CONCLUSIONS

ARCH providers have appreciated how other emergency services have found value in allowing us to assume control over certain situations where mental health professionals and community paramedics were uniquely suited to fill a role on the emergency scene.

Programs like ARCH age well, especially as ARCH providers become more versed in local resources and emergency services become more comfortable with what ARCH can provide.

ARCH serves multiple community goals by reducing emergency service demand while also striving to connect the community with the most appropriate resources.

In addition to emergency response, ARCH can utilize community paramedics and mental healthcare professionals within a Mobile Integrated Healthcare (MIH) model, providing proactive and follow-up medical and mental health services to meet community health needs and prevent 911 re-entry.

Community members have consistently voiced that they appreciate City-supported mental healthcare providers meeting them where they are, as they are, in a moment of crisis, with no other interests other than stabilization and connection.

FUTURE RECOMMENDATIONS

1.) Develop multi-disciplinary, multi-agency coordination between Fire Department community paramedics, Health Department mental health professionals, and Police Department CIT officers for a unified and consistent response to mental health, quality-of-life, and other similar community concerns that are identified through the 9-1-1 system.

2.) Develop a standardized process to document, share and monitor appropriate data across appropriate city emergency agencies. Current processes are siloed, which limits continuity of response, plans or care across city emergency response agencies.

3.) Develop a communications plan to better inform the community about community response efforts and resources.

4.) Develop and implement standardized 9-1-1 protocols for identifying, categorizing and dispatching emergency requests that include mental health, quality-of-life, houselessness or similar community concerns.

The staff members of ARCH would like to thank the citizens and leadership of the City of Independence for allowing us the opportunity to explore mental health response as a part of a 9-1-1 response system. We genuinely hope that this program is an effective and meaningful part of meeting community needs in difficult circumstances.

A special thank you to the employees and leadership of Independence Police Department, Fire Department, Health & Animal Services Department and 911 dispatch center for their support with the implementation of this program.

Ming Strother, LCSW
Rachel Neihart, LCSW
Cyndy Jackson, LCSW
Justin Newkirk, LCSW
Athaviah Barker, MSW Intern
Jon Wood, Fire Captain/Paramedic
John Borel, FEO/Community Paramedic