Assessing the Impact of Co-Responder Team Programs: A Review of Research

Academic Training to Inform Police Responses

Best Practice Guide

Prepared by the IACP / UC Center for Police Research and Policy

The University of Cincinnati

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Best Practice Guide on Responses to People with Behavioral Health Conditions or Developmental Disabilities:

A Review of Research on First Responder Models

The role of law enforcement in the United States has been characterized by a delicate balance between providing public safety, serving the community, and enforcing laws. Inherent in this work are public expectations for law enforcement officers to fill many roles, such as problem-solving, community relations, public health, and social work. Among their responsibilities, police officers have been increasingly tasked with responding to crisis situations, including those incidents involving people with behavioral health (BH) conditions and/or intellectual and developmental disabilities (IDD). These situations can present significant challenges for community members and officers, highlighting the need for clear policy direction and training in the law enforcement community to effectively serve these populations. The need for training and resources to facilitate effective responses also applies to routine activities and interactions between police officers and individuals with BH conditions and IDD.

Supported by the Bureau of Justice Assistance, researchers from the University of Cincinnati, in collaboration with Policy Research Associates, The Arc of the United States' National Center on Criminal Justice and Disability, and the International Association of Chiefs of Police, are working to address the need for additional training and resources to enhance police encounters with individuals with BH conditions and IDD. Specifically, the *Academic Training to Inform Police Responses*, is being developed to raise awareness in the policing community about the nature and needs of people living with BH conditions and/or IDD and to facilitate the use of evidence-based and best practices in police responses to these individuals.

As part of this work, the research team is gathering the available evidence documenting the effectiveness of various police, behavioral health, disability, and community responses to incidents involving individuals experiencing behavioral health crises. Collectively, this work will be assembled into a larger "Best Practice Guide" for crisis response, presenting chapters on existing response models, such as crisis intervention teams, co-responder teams, law enforcement assisted diversion, mobile crisis teams, disability response, EMS -based services, and more. The writing following this introduction was prepared as a single chapter to be included within the larger comprehensive guide. This chapter provides a review of the available research examining the implementation and impact of co-responder team programs across communities. The review of this research is preceded by a list of key terms

KEY TERMS

Behavioral health	A state of mental/emotional being and/or choices and actions that affect wellness.
Behavioral health condition	An umbrella term for substance use disorders, addiction, and mental health conditions.
Co-responder team model	A model for crisis response that pairs trained police officers with mental health professionals to respond to incidents involving individuals experiencing behavioral health crises.
Developmental disability	Physical and/or mental impairments that begin before age 22, are likely to continue indefinitely, and result in substantial functional limitations in at least three of the following key areas: self-care (dressing, bathing, eating, and other daily tasks learning); walking/moving around; self-direction; independent living; economic self-sufficiency; and language.
Disability	A physical or mental impairment, a history of such impairment, or, regarded as such, an impairment that substantially limits a major life activity.
Intellectual disability	A disability characterized by significant limitations in both intellectual functioning and in adaptive behavior, which covers many everyday social and practical skills. This disability originates before the age of 18.
Mental health condition	Patterns in moods, thinking, or behaviors that can affect daily functioning.
Promising practice	A specific activity or process used that has an emerging or limited research base supporting its effectiveness. Promising practices are not considered "evidence-based" until additional evaluation research is completed to clarify short- and long-term outcomes and impact on groups going through the activity or process.
Public health system	Defined as "all public, private, and voluntary entities that contribute to the delivery of essential public health services within a jurisdiction," including state and local public health agencies, public safety agencies, health care providers, human service and charity organizations, recreation and arts-related organizations, economic and philanthropic organizations, and education and youth development organizations.
Service provider	Any individual (practitioner) or entity (provider) engaged in the delivery of services or aid and who is legally authorized to do so by the state in which the individual or entity delivers the services.
Telehealth	The use of digital technologies such as electronic health records, mobile applications, telemedicine, and web-based tools to support the delivery of health care, health-related education, or other health-related services and functions.

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EXECUTIVE SUMMARY

The co-responder team model for behavioral health crisis response is a police-based intervention that pairs trained police officers with mental health professionals to respond to incidents involving individuals experiencing behavioral health crises. This collaborative crisis response model aims to improve the experiences and outcomes of persons in crisis by providing effective crisis de-escalation, diversion from the criminal justice system, and connection to appropriate behavioral health services. Supporters of the co-responder team model highlight the cost-effectiveness of this response, suggesting its capacity to alleviate pressure on the criminal justice and health care systems. Although not without limitations, the available research examining the processes and impact of co-responder team programs suggest this model may have value for crisis response.

This document provides a review of the available research regarding the implementation and impact of co-responder team programs across several communities. This review is organized into four sections. First, the definition and implementation of the co-responder team model are presented. Second, the impact of co-responder team programs on individuals in crisis, the criminal justice system, and the health care system is examined. Next, stakeholders' perceptions of co-responder team programs and opinions on the elements that make these programs successful are considered. Finally, the implications for future research and practice are reviewed.

Definition and Implementation of the Co-Responder Team Model

First described in the United States in the early 1990s, the co-responder team model has been adopted internationally, gaining prevalence in Australia, Canada, and the United Kingdom. The co-responder team model may be implemented as a stand-alone program for crisis response or integrated within other comprehensive police-mental health collaboration models. These programs typically involve a specially trained team, including at least one police officer and one mental health professional, that jointly respond to calls for service (CFS) in which a behavioral health crisis is likely involved. In their response, co-responder teams seek to safely engage, assess, and direct individuals in crisis to appropriate behavioral health and social services.

The use of this response model across communities and across time has resulted in substantial variation in the definition and delivery of co-responder team programs. In many cases, this variation is a product of efforts to tailor co-response to the specific needs of communities. However, resource constraints – including access to funding, staff, equipment, and behavioral health services – also play a role in the co-responder team approach. As such, co-responder team programs are found to vary across several programmatic elements. These elements – relating to the response methods, resources, and availability of the teams – represent community choices in developing and implementing a co-responder approach.

For example, co-responder teams may serve as a primary or secondary response (or combination of both) to behavioral health crises. The type of support provided by mental

health co-responders is also found to vary (e.g., “ride-along,” “ride-separate,” or “remote” support). Additionally, the teams may be expected to respond to crisis incidents occurring across the police jurisdiction or focus their resources in areas observed to have higher rates of CFS. The hours of operation for these teams can also vary greatly. However, many are designed to be available several days a week in the late afternoon and evening hours, when the frequency of CFS involving behavioral health crises in the community are observed to be greatest. Furthermore, the size of co-responder teams and the professionals involved – such as the inclusion of emergency medical services, fire departments, and peer support specialists or peer advocates – may differ. Importantly, although the execution of the co-responder team model may vary, the primary goals of this response, including crisis de-escalation, enhancing civilian and officer safety during interactions, developing partnerships with the mental health system to facilitate diversion, and connecting people experiencing behavioral health crises to resources and services are the same.

The Impact of Co-Responder Team Programs

The variation in the definition and delivery of co-responder team programs makes it difficult to assess this intervention's effects systematically. Still, in the last several years, a growing body of literature examining individual co-responder team programs has emerged. Although no randomized controlled trials have been published, several recent literature reviews have highlighted the increasing number of descriptive and quasi-experimental studies that speak to the implementation process and impacts of co-responder teams on behavioral health crisis response. Collectively, this research provides preliminary evidence of the promising effects of this response model in (1) enhancing crisis de-escalation, (2) increasing individuals’ connection to services, (3) reducing pressure on the criminal justice system by reducing arrests, police detentions, and time spent by officers in responding to calls for service, (4) reducing pressure on the health care system by reducing emergency department visits and psychiatric hospitalizations, and (5) promoting cost-effectiveness. Findings from this research are presented below.

Enhancing Crisis De-escalation: The co-responder team model has been implemented across many communities hoping that joint police-mental health response to behavioral health crises will facilitate crisis de-escalation, reducing the frequency and severity of officer use of force and the risk of civilian and officer injury during these interactions. Few evaluations have assessed the impact of co-responder team programs on crisis de-escalation. The limited evidence suggests co-responder teams may be effective in de-escalating crises, with CFS managed by co-responder teams associated with fewer incidents of force and low rates of injury than those CFS responded to by clinicians only/ patrol only?.

Increasing Connection to Services: Enhancing individuals’ access to community services is a primary goal of co-responder team programs. Connecting individuals experiencing behavioral health crises to community services is thought to be the most appropriate way to support persons with behavioral health concerns and prevent future crises (Shapiro et al., 2015). There is some evidence that co-responder teams facilitate the connection of individuals in crisis to

behavioral health services. However, the rate of voluntary referral to these community resources varies substantially across programs. Although descriptive evidence suggests that individuals often engage in the services they are referred to, the available literature provides limited insight into the long-term outcomes.

Reducing Pressure on the Criminal Justice System: Supporters of the co-responder team model for crisis response suggest using co-responder teams in the community can alleviate pressure on the criminal justice system by diverting individuals in crisis away from the system. Assessing the capacity of co-responder teams to reduce pressure on the criminal justice system, many evaluations have examined the impact of co-responder team programs on outcomes such as arrest, police detentions, and officers' time spent managing calls for service. The findings from these studies are detailed below.

Arrests: Descriptive analyses consistently suggest low rates of arrest by co-responder teams. However, more research is needed to understand whether these rates are significantly different from arrest rates produced in police-only responses to behavioral health crises.

Police Detentions: Examinations of co-responder team programs in the United Kingdom consistently report lower rates of mental health detentions by police when co-responder teams are active. However, reductions in police detentions may be dictated by the type of support provided by mental health co-responders.

Officers' Time Spent on Calls for Service: There is some evidence that the implementation of co-responder team programs can reduce the amount of time spent by first responding officers when managing behavioral health crises (i.e., time spent at the scene, time spent in the emergency department). However, it is observed that the time-saving capacity of co-responder teams is dictated by the availability and reach of these teams in the community.

Reducing Pressure on the Health Care System: In addition to alleviating pressure on the criminal justice system, co-responders team programs are argued to mitigate the burden of behavioral health crises on health care providers by reducing unnecessary emergency department (ED) visits and psychiatric hospitalizations. However, the available research provides mixed findings on the capacity of co-responder teams to reduce pressure on health care providers. Several studies suggest that CFS managed by co-responder teams results in fewer transports to the ED, although others find the opposite. Additionally, there is evidence that co-responder teams reduce the proportion of crisis incidents resulting in hospitalization and higher rates of conversion from ED referral to hospitalization.

Promoting Cost Effectiveness: Although the goals of co-responder team programs are traditionally presented within a humanitarian framework, there is preliminary evidence that these programs may also be cost-effective for police agencies. There is preliminary evidence regarding the cost benefits of co-responder team programs. However, these findings are consistently accompanied by warnings regarding data limitations that impact analyses.

Stakeholders' Perceptions of Co-Responder Team Programs

In addition to assessing the impact of co-responder team programs, approximately half of the studies considered in this review included qualitative or survey methods to examine stakeholders' perceptions of the co-responder team programs in their respective communities. These studies provide insight on the perceived benefits of co-responder team programs from the perspectives of the police, behavioral health professionals, and clients that are either directly involved in or have come into contact with co-responder teams.

Stakeholders' observed the capacity of co-responder teams to improve the process of response and outcomes for individuals experiencing behavioral health crises. Specifically, through the provision of mental health support and advice at the scene of these incidents, co-responder teams were perceived to de-escalate crisis incidents more effectively, avoiding unnecessary distress for service users and reducing the stigma associated with and/or criminalization of these incidents. Studies also suggest a high level of consumer satisfaction with the response and services provided by co-responder teams. Both service users and their families expressed appreciation for the teams' expertise, support, and assistance in accessing and navigating community-based services. Discussions with stakeholder groups also highlighted several programmatic elements that may serve as facilitators or barriers to the effective implementation of co-responder team programs. These elements can be broadly summarized into six categories:

1. Establishing Strong Inter-Agency Collaboration: Effective implementation of co-responder team programs was viewed to rely upon consistent collaboration between public safety agencies and behavioral health service providers in the community. Programs led by collaborative project governance were observed to experience fewer issues with communication and trust, information sharing, and problem-solving.
2. Outlining Clear Policies and Procedures: Stakeholders consistently identified the importance of developing clearly stated policies and procedures to facilitate police-behavioral health collaboration and coordinate on-scene responses by co-responder team members.
3. Building the Co-Responder Team: Stakeholders consistently suggested the importance of identifying appropriate police and behavioral health professionals for involvement in co-responder team programs. Stakeholders also acknowledged the importance of cross-training co-responder team members to introduce the professionals to the culture, philosophies, language, and procedures of the partner agencies.
4. Advertising the Program in the Community: Several studies identified the importance of communicating the goals of co-responder team programs across first responders and behavioral health agencies. Indeed, low awareness of co-responder team programs among first responders and health care providers resulted in low or inappropriate use of the team within the community.

5. Identifying Available Behavioral Health Services: Difficulties in co-responder team program implementation related to behavioral health service limitations were regularly observed across studies. Stakeholders indicated the importance of front-end efforts in program development to conduct an inventory of available behavioral services in the community and expanding those services where possible.
6. Identifying Funding: Finally, funding limitations were viewed as a primary barrier to the effective implementation of co-responder team programs. Funding limitations affected several aspects of the co-responder team programs under study, including staffing, hours of operation, and resources available to co-responders.

Discussion & Conclusion

Co-responder team programs follow a police-based model for crisis response that partners trained police officers and mental health professionals to respond to incidents involving individuals experiencing behavioral health crises. Adopted internationally, these programs merge the professional expertise of the police and behavioral health fields to improve the experiences and outcomes of persons in crisis using effective crisis de-escalation and the connection of individuals to appropriate behavioral health services in place of formal criminal justice intervention or unnecessary hospitalization. The available research examining the processes and impact of co-responder teams provides preliminary evidence suggesting promising effects of this response model. However, the variation in the design and delivery of co-responder team programs – though demonstrating the capacity to tailor the program to the specific needs of communities – makes it difficult to generalize the findings from the available research across jurisdictions. Additionally, strong conclusions regarding the effects of co-responder team programs are constrained by the descriptive nature of existing research. Given these considerations, the co-responder team model is most appropriately labeled as a *promising practice* in police-based behavioral health crisis response.

Future research should work to address the gaps in the available literature. For example, there is a need to clearly identify the key elements of co-responder team programs (e.g., training, staffing, resources, protocols) and the impact of those elements on the outcomes of interest. Identifying the key ingredients of these programs – that is, outlining what works, how it works, and when it works – can provide a prescriptive model for co-response that facilitates the adoption of these programs across jurisdictions. Future research should also consider the long-term outcomes of co-responder team programs. Finally, as the development and implementation of co-responder team programs continue, research must examine the impact of this response on various populations, including people living with serious mental illness, people with intellectual and/or developmental disabilities, and people living with co-occurring mental health and developmental disabilities. As noted recently by Watson and colleagues (2019), although it is likely that co-responder teams regularly come into contact with these individuals, the available research does not examine the frequency of this contact nor the potential variation in co-responder team programs' effectiveness in responding to these populations.

Planning for data collection and evaluating co-responder team programs as they are developed will be key in addressing these recommendations for research. Although data collection and information sharing have been identified as challenges for police-behavioral health partnerships, navigating these issues before the implementation of the co-responder team program can facilitate the data-driven analysis of experiences in the community, improve co-responder teams' responses to individuals in crisis, and enhance the capacity for the assessment and review of program effects. Indeed, identifying what information should be collected and shared, how, and by whom are integral processes for consideration in program design. Collectively, these investments in data collection and research can help answer questions about the overall effectiveness of co-responder team programs and provide important information for process improvement.

Key Takeaways

- The co-responder team model for crisis response pairs trained police officers with mental health professionals to respond to incidents involving individuals experiencing behavioral health crises. This response aims to improve the experiences and outcomes of persons in crisis by providing effective crisis de-escalation, diversion from the criminal justice system, and connection to appropriate behavioral health services.
- The use of the co-responder team model across communities has resulted in substantial variation in the definition and delivery of co-responder team programs. In many cases, this variation is a product of efforts to tailor co-response to the specific needs of communities. However, resource constraints also play a role in the co-responder team approach.
- Discussions with stakeholder groups highlight several programmatic elements that may serve as facilitators or barriers to the effective implementation of co-responder team programs. These elements include: (1) developing strong inter-agency collaborations; (2) outlining clear policies and procedures; (3) strategically building the co-responder team; (4) marketing the program in the community; (5) identifying available behavioral health services for diversion; and (6) identifying funding for program efforts.
- More research is needed to understand the outcomes associated with co-responder team programs. Although the body of descriptive evidence supporting the use of co-responder team programs has grown in the past decade, there remains a lack of methodologically rigorous research (i.e., experimental, quasi-experimental research) examining the impacts of this response.
- The available research provides preliminary evidence of the promising effects of co-responder team programs in (1) enhancing crisis de-escalation, (2) increasing individuals' connection to services, (3) reducing pressure on the criminal justice system by reducing arrests, police detentions, and time spent by officers in responding to calls for service, (4) reducing pressure on the health care system by reducing emergency department visits and psychiatric hospitalizations, and (5) promoting cost-effectiveness.

- Investments in future research must be made. There is a need to clearly identify the key elements of co-responder team programs (e.g., training, staffing, resources, protocols) and the impact of those elements on the outcomes of interest. Future research should also consider the long-term outcomes of co-responder team programs. Finally, as the development and implementation of co-responder team programs continue, research must examine the impact of this response on various populations, including people living with serious mental illness, people with intellectual and/or developmental disabilities, and people living with co-occurring mental health and developmental disabilities.

I. Introduction

The co-responder team model for crisis response pairs trained police officers with mental health professionals to respond to incidents involving individuals experiencing behavioral health crises. The value of this collaborative response lies within the merger of professional expertise to resolve incidents of crisis, including police officers' experience in managing potentially volatile situations and mental health professionals' skills in mental health consultation, evaluation, and care (Shapiro et al., 2015). Although the implementation of the co-responder team model can vary significantly across communities, co-responder team programs share overarching objectives, including improving the experiences and short/long-term outcomes of persons in crisis through effective crisis de-escalation, diversion from the criminal justice system, and connection to appropriate behavioral health services. Simultaneously, these programs aim to provide a cost-effective approach to crisis response that may alleviate pressure on the criminal justice and health care systems by reducing police officers' time spent in crisis management, minimizing arrests, preventing repeat contacts, and reducing unnecessary emergency department visits and psychiatric hospitalizations through connections to treatment services. The available research examining the processes and impact of co-responder team models suggest these programs are often successful in meeting these goals (see Puntis et al., 2018; Watson et al., 2019). As such, the co-responder team model is appropriately considered a promising practice in behavioral health crisis response.

This document provides a review of the available research regarding the implementation and impact of co-responder team programs across communities. This review is organized into the following four sections: First, **Section II** presents the definition and implementation of the co-responder team model, discussing the variation in programs' delivery across different communities. Next, **Section III** examines the impacts of co-responder team programs on individuals in crisis, the criminal justice system, and the health care system within the communities. **Section IV** considers stakeholders' perceptions of the benefits of co-responder team programs and opinions regarding the programmatic elements that make these programs successful. Finally, **Section V** discusses the research findings, identifying implications for practice, and directions for future research.

II. Definition and Implementation of the Co-Responder Team Model

A co-responder team model is a collaborative approach to behavioral crisis response that seeks to reduce harm and facilitate alternatives to arrest by providing police-mental health professional co-response to calls for service (CFS) involving persons in crisis. First described in the United States in the early 1990s (i.e., Los Angeles' Systemwide Mental Health Assessment Response Team; see Lamb et al., 1995), the co-responder team model has been adopted internationally, gaining prevalence in Australia, Canada, and the United Kingdom (Parker et al., 2018). Co-responder team programs are designed to leverage the skills of both mental health professionals and police officers to enhance interactions in crises, reduce the need for hospitalization or emergency medical services, and increase the diversion of people with behavioral health concerns away from the criminal justice system (Morabito et al., 2018). These

programs typically involve a specially trained team, including at least one police officer and one mental health professional, that jointly respond to CFS in which behavioral health crises are suspected to be involved. When responding to these CFS, co-responder teams seek to safely engage, assess, and direct individuals in crisis to appropriate behavioral health and social services (Bailey et al., 2018).

The use of this response model across communities and across time has resulted in substantial variation in the implementation of co-responder team programs (see Krider et al., 2020). For example, a recent systematic review of co-responder teams identified 19 unique programs described across 26 research articles (Puntis et al., 2018). In many cases, variation in program implementation is a direct product of efforts to tailor the co-responder team to the specific needs of individual communities. However, resource constraints – including access to funding, staff, equipment, and behavioral health services – also play a role in the operationalization and implementation of the co-responder team approach (Dyer et al., 2015). Table 1 identifies several characteristics – relating to the response methods, resources, and availability of the teams – found to vary across communities in their implementation of co-responder team programs. Further demonstrating the variation across co-responder team programs, Table 2 provides several real-world examples of co-responder team programs across different jurisdictions.

Co-responder teams may serve as a primary or secondary response (or combination of both) to behavioral health crises. That is, co-responder teams may act as the first response to CFS involving individuals in crisis or can be dispatched to the scene after the fact to assist first-responding officers. In either case, co-responder teams are observed to provide primarily reactive responses to behavioral health crises in the community, responding to calls and crises after they occur. However, in some instances, co-responders can take a proactive approach to crisis response by integrating outreach components within the team's responsibilities. Specifically, recognizing the recurring nature of crises in the community, co-responder teams may be charged with proactively reaching out to and/or following up with individuals who have come into contact with the police to help connect them to appropriate services (White & Weisburd, 2018).

The type of support provided by mental health professional co-responders is also found to vary across communities (Puntis et al., 2018). In many cases, mental health professionals are observed to provide a "ride-along support" or "ride-separate support" where a police officer and mental health professional will travel in the same vehicle, or separate vehicles though dispatched at the same time, to the location of the behavioral health crisis. Alternatively, the teams' mental health professionals may provide remote consultation and support to the teams' police officers via telephone or telehealth services. In some instances, the co-responder team employs both ride-along, ride-separate, and remote support, with service delivery dictated by the characteristics of the call for service.

Table 1. Co-Responder Team Program Variation

Characteristic	Description
1. Model Implementation	Co-responder teams may be implemented as a stand-alone program for crisis response or integrated into other comprehensive police-mental health collaboration models.
2. Nature of Response	Co-responder teams may serve as the primary response to CFS suspected to involve a behavioral health crisis and/or serve as a secondary response, with teams dispatched later to assist first-responding officers.
3. Method of Referral	Co-responder teams can be notified of crisis incidents in many different ways, including 911 dispatch, crisis lines, or direct requests for assistance from other first-responders.
3. Reactive or Proactive Response	Co-responder teams may respond *after* crisis incidents have occurred and/or provide community outreach and follow-up services with individuals to facilitate connection to behavioral health services.
4. Geographic Focus	Co-responder teams may respond to crisis incidents occurring across their jurisdiction or focus their resources on specific locations with high CFS rates.
5. Days / Hours of operation	Co-responder teams are often available several days a week in the late afternoon and evening hours when the frequency of CFS involving behavioral health crises is greatest, though specific days/times of availability vary.
6. Team Location	Co-responder team members may be housed together or separately within the police or behavioral health agencies.
7. Staffing	Co-responders may work in a full- or part-time capacity. The type of mental health professionals involved in co-responses may vary. Further, some communities may incorporate EMS, Fire, and/or peer support specialists/peer advocates in co-response.
8. Amount / Type of Training	The amount and type of training provided to co-responder team members can vary according to program staffing and available resources, requirements for training, and program goals.
9. Method of Mental Health Support	MH professionals may provide police "ride-along support," in which officers and MH professionals arrive at an incident together, "ride-separate support" in which officers and MH professionals arrive at an incident separately, and/or "remote support" in which MH professionals assist via telephone, radio, or other technology.
10. Equipment	The amount and type of equipment allocated to co-responder teams (e.g., marked/unmarked vehicles, uniforms, technology) can vary depending on resource availability and program goals.
11. Role of Team Members	The responsibilities of co-responders in their interactions with individuals in crisis can vary across communities and across incidents. These roles are often outlined in policies and procedures that accompany co-responder team programs.
12. Data Collection	The amount and type of information that police and behavioral health agencies collect related to co-responder team activities and subsequent outcomes vary across jurisdictions.

Table 2. Co-Responder Team Programs in Practice[1]

Site Example: Pima County, Arizona Sheriff's Office & Tucson, Arizona Police Department

Approach: Ride-Along Support

Program Description:

The Pima County Sheriff's Office and Tucson Police Department's Mental Health Support Team (MHST) was established in 2014. This program uses a trained unit, comprised of a captain, lieutenant, sergeant, detectives, and patrol officers, to serve as a mental health resource for other officers, community members, and health care providers. Wearing civilian clothes and traveling in unmarked vehicles, MHST officers are paired with masters-level licensed mental health clinicians to respond to mental health-related CFS.

For more information see https://www.tucsonaz.gov/police/mental-health-support-team-mhst; see also Balfour et al. (2017)

Site Example: Springfield, Missouri Police Department

Approach: Remote-Support

Program Description:

In 2012, the Springfield Police Department and Burrell Behavioral Health introduced the Virtual-Mobile Crisis Intervention (V-MCI). Referred to as the "Springfield Model," this co-responder team program equips officers with iPads to connect with behavioral health specialists in real-time to obtain assessments and referrals to services for individuals in crisis. Since its inception, the Springfield Model has been adopted across the southwest and central Missouri, including St. Louis County.

For more information see https://innovationaward.secure-platform.com/a/gallery/rounds/1079/details/33287

Site Example: Poulsbo, Washington Police Department

Approach: After-Event Support

Program Description:

In 2018, the Poulsbo Police Department began their partnership with the Poulsbo's Behavioral Health Outreach Program. This partnership places "behavioral health navigators" within the Poulsbo Police Department to aid officers when they identify individuals in need of behavioral health services. At an officers' request, Navigators work with individuals to identify treatment or service options, assist in the connection to treatment and/or services, and improve communication between the criminal justice and behavioral health systems.

For more information see https://www.bainbridgereview.com/news/poulsbo-navigator-program-partnering-law-enforcement-with-behavioral-health-specialists/

[1] For additional information and examples, see Krider et al., 2020.

Regarding availability, co-responder teams may be expected to respond to crisis incidents occurring across the police jurisdiction or focus their resources in areas observed to have higher rates of CFS (White & Weisburd, 2018). The hours of operation for these teams can also vary greatly. However, many are designed to be available several days a week in the late afternoon and evening hours, when the frequency of CFS involving behavioral health crises in the community are observed to be greatest (Puntis et al., 2018). To expand the capacity and expertise of the services provided by the co-responder team, some communities incorporate emergency medical services (EMS), fire departments, and/or peer support specialists and peer advocates in co-response to behavioral health crises. As noted previously, the availability and accessibility of the co-responder team are often affected by staff and resource allocation to the program.

In sum, the precise design and implementation of the co-responder team model may vary as communities tailor their program to the specific needs and available resources in their area. Importantly, although the execution of the co-responder team model may vary, the primary goals of these programs, including crisis de-escalation, enhancing civilian and officer safety during interactions, developing partnerships with the mental health system to facilitate diversion, and connecting people experiencing behavioral health crises to resources and services are the same (Reuland, 2010). Indeed, advocates of this approach suggest that the more police and mental health professionals collaborate, the better the criminal justice and behavioral health systems can assist both service users and each other (Rosenbaum, 2010).

III. The Impact of Co-Responder Team Programs

The substantial variation in the definition and implementation of the co-responder team model creates difficulties for systematically assessing program effects. Still, in the last several years, a growing body of literature examining individual co-responder team programs has emerged. Although no randomized controlled trials evaluating these programs have been published, several recent systematic and narrative reviews of the literature (see Puntis et al., 2018; Shapiro et al., 2015; Watson et al., 2019) have highlighted the increasing number of descriptive and quasi-experimental studies that speak to the implementation process and impacts of co-responder teams on behavioral health crisis response. Collectively, this research provides preliminary evidence suggesting promising effects of this response. Findings from this research collection are presented below, organized across the array of outcomes examined by researchers across communities. These outcomes include: enhancing crisis de-escalation, increasing connection to services, reducing pressure on the criminal justice system (e.g., arrests, detentions, officers' time spent on CFS), reducing pressure on the health care system (e.g., emergency department referrals, hospital admissions), and promoting cost-effectiveness. A table of the studies discussed in this section can be found in Appendix A.

A. Enhancing Crisis De-escalation

The co-responder team model has been implemented across many communities in hopes that joint police-mental health response to behavioral health crises will facilitate crisis de-escalation,

reducing the frequency and severity of officer use of force and the risk of civilian and officer injury in these interactions (Fitts & Robertson, 2017; McKenna et al., 2015b; Shapiro et al., 2015). Few quantitative evaluations have assessed the impact of co-responder team programs on the use of force and injury, however (for exceptions, see Allen Consulting Group, 2012; Blais et al., 2020; Lamanna et al., 2018). Still, the limited available evidence suggests co-responder team programs may be effective in crisis de-escalation. For example, in their quasi-experimental examination of incidents managed by a co-responder team in Quebec, Canada, Blais, and colleagues (2020) found CFS involving the team to be associated with fewer incidents of police use of force. Specifically, force was used in only 4.2% of incidents involving the co-responder team compared to 12.1% of similar incidents handled by regular patrol units.[2] This difference was statistically significant.

In their investigation of the impacts of a co-responder team program in Victoria, Canada(i.e., the Police, Ambulance, and Clinical Early Response or PACER), the Allen Consulting Group (2012) found fewer instances of police use of force – measured by the completion of use of force forms – during mental health crises in the areas where PACER was implemented, compared to areas receiving "business as usual" services. However, the difference in police use of force between the two areas was small, with the size of the difference in the number of use of force forms completed across the two areas decreasing throughout the evaluation period (January 2010 – March 2011). Furthermore, the researchers did not assess the statistical significance of these differences, limiting the interpretation of this finding (Allen Consulting Group, 2012).

Regarding injury, in a mixed-methods study, Lamanna and colleagues (2018) examined rates of service-user injury in encounters with the City of Toronto Mobile Crisis Intervention Team (MCIT). Using nine months of administrative data, Lamanna et al. (2018) found that injuries among MCIT service users were infrequent (occurring in only 1.9% of interactions) and, when they did occur, were typically self-inflicted. Unfortunately, comparative data on injuries were not available for police-only responses during this period. As such, it is uncertain whether rates of service-user injury in MCIT response differed in a statistically significant way from injuries experienced by individuals in police-only responses.

B. Increasing Connection to Services

Enhancing individuals' access to community services is a primary goal of co-responder team programs. Indeed, connecting individuals experiencing behavioral health crises to community services is thought to be the most appropriate way to support persons with behavioral health concerns and prevent future crises (Shapiro et al., 2015). Research examining the effects of co-responder team programs provides some evidence that co-responder teams facilitate

[2] Blais et al. (2020) employed propensity score matching to compare interventions managed by the co-responder team to interventions by regular police officers within the same time period (i.e., 4 PM to 12 AM on Wednesdays and Fridays between May 2015 and May 2017). Control observations were collected before and after introducing the co-responder team to test for potential contamination effects.

individuals' connection to services (Dyer et al., 2015; Helfgott et al., 2016; Huppert & Griffiths, 2018; Lee et al., 2015; Morabito et al., 2018). Although the rate of voluntary referral to these community resources varies substantially across programs, descriptive evaluations consistently demonstrate referral to services as a common disposition for crises managed by co-responders.

In a recent quasi-experimental evaluation comparing outcomes of crisis incidents managed by a co-responder team to similar incidents managed by police-only teams, Blais et al. (2020) observed that individuals in crisis were more likely to be referred to community services when the co-responder team was involved in the intervention (29.5% compared to 4.5% of police-only incidents). Additionally, the co-responder team was more likely than police-only teams to allow individuals in crisis to be managed by their social network. That is, the individuals were more likely returned home or taken in charge by friends or relatives when this social infrastructure was in place. Following the diversion of individuals in crisis to their existing support systems, the co-responder team provided follow-up services to the individuals, linking them to appropriate community resources as needed (Blais et al., 2020).

Additional descriptive findings suggest that individuals in crisis often engaged in the services they were referred to by co-responder teams. For example, in their quasi-experimental evaluation of the Mental Health Mobile Crisis Team (MHMCT) in Nova Scotia, Kisely and colleagues (2010) found that individuals who had been in contact with the co-responder team showed greater engagement with services – demonstrated by increased contacts to outpatient services – than controls subjects in the first year of implementation of the MHMCT. Similarly, in their examination of outcomes associated with a co-responder team program implemented in Cleveland (Northeast England) Dyer and colleagues (2015) found that 61% of individuals followed up by the co-responder team reported engaging in behavioral health services. Finn and Sullivan (1989) observed consistent findings in their descriptive evaluation of several different crisis response models. Specifically, a co-responder team program in Fairfax County, Virginia, reported 71% of individuals who came into contact with the team followed through with the team's service recommendation and were actively engaged in a voluntary outpatient program within four weeks of the crisis intervention. Additionally, in Washentaw County, Michigan, Finn and Sullivan (1989) observed that when co-responder teams followed up with individuals within 48-hours of the crisis intervention, the percentage of service users that sought help from outpatient mental health services increased from two percent to 18% (Finn & Sullivan, 1989).

C. Reducing Pressure on the Criminal Justice System

Proponents of the co-responder team model for crisis response suggest using co-responder teams in the community may alleviate pressure on the criminal justice system often produced by police-only responses to mental health CFS. Specifically, it is proposed that co-responder teams may have the capacity to reduce formal interventions by police officers (e.g., arrests, involuntary mental health detentions), preventing the introduction of individuals in crisis into the criminal justice system. Additionally, co-responder team programs are identified as beneficial to police agencies – enhancing the efficiency in the use of police resources – by

reducing the time spent by first responding officers in the management of crisis incidents (Shapiro et al., 2015). Assessing the capacity of co-responder teams to reduce pressure on the criminal justice system, many empirical evaluations have examined the impact of co-responder team programs on outcomes such as arrest, police detentions, and officers' time spent managing CFS. The findings from these evaluations are detailed below.

1. Arrests

It has been suggested that the implementation of co-response to CFS involving behavioral health crises may reduce the potential for unnecessary arrests. Indeed, in descriptive analyses, researchers consistently report low rates of arrest by co-responder teams. For example, in their evaluation of one month of referrals to the Los Angeles' Systemwide Mental Health Assessment Response Team (SMART) program, Lamb et al. (1995) found only 2% (n = 2 of 101) of service users were arrested in their interactions with the team, despite almost 50% of those individuals exhibiting some type of threatening behavior. A subsequent descriptive evaluation of the SMART program examining one year of reports from the Los Angeles Police Department's (LAPD) Mental Evaluation Unit found fewer mental health-related incidents involving the SMART unit to result in an arrest (1.4%; n = 69) than those incidents in which regular patrol responded (13.3%; n = 1,324) (Lopez, 2016).

Studies examining co-responder team programs implemented in other jurisdictions report similar descriptive findings, with rates of arrest in mental health-related incidents referred to co-responder teams ranging from approximately 1% to 5% (see Brown et al., 2009; Lamanna et al., 2018; Meehan et al., 2018; Morabito et al., 2018). Unfortunately, the available research provides limited insight into whether these low arrest rates represent a statistically significant difference in outcomes produced by co-responder team programs compared to traditional police responses. One study provides an exception. Specifically, in his evaluation of a co-responder team in Dekalb County (GA), Scott (2000) retrospectively examined characteristics and outcomes of psychiatric emergencies handled by a mobile crisis team (n = 73) compared to psychiatric emergencies handled by regular police intervention (n = 58) across three months. Although the percentage of situations resulting in arrest was lower for the mobile crisis unit (7% of situations compared to 14% handled by regular police intervention), this difference was not statistically significant (Scott, 2000).

2. Police Detentions

Several studies produced in the United Kingdom examine the impact of co-responder teams, more often referred to as Street Triage (ST) teams, on the frequency of police detentions authorized by the Mental Health Act (1983) in England and Wales. Under Section 136 of the Mental Health Act (MHA), police officers have the legal authority to detain individuals whom they suspect to have mental health concerns and take them to a place of safety (e.g., emergency department, psychiatric hospital) to undergo a mental health assessment. Observations of the significant increase in the use of MHA detentions in recent years and concerns over the inappropriate use of this legal code has motivated many communities in the

United Kingdom to adopt a co-responder team model to enhance crisis response (Loughran, 2018).

Across these studies, researchers consistently report a lower number of MHA detentions when co-responder teams are active (Dyer et al., 2015; Heslin et al., 2016; Jenkins et al., 2017; Keown et al., 2016). For example, in their descriptive evaluation of the Cleveland (Northeast England) Street Triage Team (2012-2014), Dyer and colleagues (2015) found a total of 13 mental-health-related detentions were made when the Street Triage Team was on duty compared with 558 detentions when Street Triage was not on duty. Statistically significant reductions in the number of MHA detentions following the introduction of a Street Triage team have been observed across several other studies (Helfgott et al., 2016; Heslin et al., 2016; Jenkins et al., 2017; Keown et al., 2016). In their comparison of the number of MHA detentions before and after the introduction of Street Triage in several North East England locations, Keown and colleagues (2016) found the annual rate of detentions reduced 56% within the first year that ST was implemented. The researchers identified a significant association between ST dosage and the decrease in mental health detentions.[3] Similarly, Heslin et al. (2016) observed MHA detentions to be significantly lower within the six months following the introduction of a Street Triage program in Sussex compared to detention rates six months prior (i.e., 118 detentions post-intervention compared to 194 detentions pre-intervention).

Notably, there is preliminary evidence to suggest that the type of support provided by mental health co-responders – that is, whether ride-along or remote mental health support is provided – affects the program's impact on police detentions and subsequent outcomes. Specifically, in their comparative study of MHA detentions occurring six months before and six months after the implementation of two co-responder team programs in Ipswich and Norwich, Jenkins and colleagues (2017) observed that the ride-along team model implemented in Ipswich was associated with a statistically significant reduction in MHA detentions six months after its implementation, while the remote support team approach in Norwich was not.[4] Furthermore, observations from six months post-intervention suggest that Ipswich's ride-along team approach was associated with a statistically significant increase in hospital admissions. That is, a greater number of individuals detained by the co-responder team under Section 136 of the Mental Health Act in Ipswich were admitted to the hospital following mental health assessment – suggesting the co-responder teams' detention of these individuals was an appropriate action. Similar observations were *not* found for Norwich's remote-support team approach (Jenkins et al., 2017). This limitation of the remote-support team approach may not be universal, however. For example, Dyer et al. (2015) observed greater conversion of MHA detentions to hospital admissions when detentions were advised by the Cleveland Street Triage team (a team relying primarily on remote support from mental health nurses).

[3] Specifically, the reduction in detentions across locations only occurred when ST was in operation at those locations. Additionally, Keown et al. (2016) observed that greater involvement of ST in calls for service involving a mental health component resulted in greater reductions in mental health-related detentions.

[4] Norwich was chosen as a control site for this study because it closely matched the size, ethnicity, and deprivation measures per 2011 census data. Additionally, no statistically significant differences were observed in the demographic characteristics of service users between the two locations (Jenkins et al., 2017).

3. Officers' Time Spent Managing Calls for Services

Some research has demonstrated that co-responder team programs can mitigate the pressure of mental health calls for service on police agencies by reducing the time spent by first responding officers in managing these incidents (Shapiro et al., 2015). Freeing officers promptly is viewed to enhance efficiency in police resources by allowing front-line officers to return to patrol activities or respond to other CFS. In their quasi-experimental evaluation of a co-responder team program in Halifax, Nova Scotia, Kisely et al. (2010) found that the time police officers spent on the scene of mental health calls fell significantly each year following the implementation of co-responder team services. Specifically, first responding officers spent an average of 50 fewer minutes on the scene of mental health CFS two years post-implementation (136 minutes compared to 185 minutes one-year pre-implementation). Notably, this time was also lower than the average time spent on officers' mental health calls in an area without access to the co-responder team services (165 minutes). This difference was statistically significant. Similarly, the Allen Consulting Group (2012) reported the average time to release primary response units from mental health CFS was 52 minutes when a co-responder team (i.e., Police, Ambulance, and Early Response or PACER) was involved. In contrast, first responding officers at a location that lacked co-responder team services were found to be involved with mental health incidents for an average of two hours and 46 minutes.

Observations of officers' time-saved have also been reported concerning emergency department wait times for police officers that transport individuals in crisis to the hospital (Baess, 2005; Fahim et al., 2016; Lamanna et al., 2018). For example, in an evaluation of a co-responder team program in Vancouver, Canada, researchers reported that officer wait times in the emergency department were shorter when the transition of individuals in crisis from police custody to the emergency department was assisted by mental health co-responders (Baess, 2005). On average, officers waited 45 minutes in the emergency department when assisted by mental health professionals from the co-responder team, compared to 121 minutes when officers attended the emergency department on their own (Baess, 2005). Although few additional studies have examined statistical differences in emergency department wait times for police officers, those that do report consistently shorter wait times for officers assisted by co-responder teams when compared to wait times for police-only teams (see Fahim et al., 2016; Lamanna et al., 2018; Shapiro et al., 2015).

Importantly, the ability of co-responder teams to reduce the time spent by police officers on behavioral health CFS is affected by the teams' availability to respond to crises as well as the reach of these teams within the community (Shapiro et al., 2015). Although several studies suggest that co-responder teams demonstrate the capacity to respond to a high number of behavioral health CFS in a fairly expedient manner (Allen Consulting Group, 2012; Baess, 2005; Kisely et al., 2010), others observe that delays in the response times of co-responder teams present a challenge for reducing officers' time spent managing CFS (Lamanna et al., 2018). Anecdotally, delayed responses by co-responder teams have been observed to limit police officers' use of these services (see, e.g., Dyer et al., 2015). Building upon this finding, a more recent study found that response times for co-responding teams were longer than those of

police-only teams (Lamanna et al., 208). Notably, these longer response times are observed to be associated with limitations in co-responder team programs resources (e.g., staffing) and the team's responsibility to respond to CFS across larger geographic areas.

D. Reducing Pressure on the Health Care System: Examining Emergency Department Referrals & Hospital Admissions

In addition to alleviating pressure on the criminal justice system, co-responders team programs are argued to mitigate the burden of behavioral health crises on health care providers by reducing unnecessary emergency department visits and psychiatric hospitalizations (Shapiro et al., 2015). A common disposition in police responses to individuals experiencing behavioral health crises is the transport of those individuals to the nearest emergency department (ED) for assessment and, when needed, admission to the hospital for care (Morabito et al., 2018). Observations that most service users brought to the ED by police are not subsequently admitted to the hospital suggest the over-referral of individuals in crisis to the ED (see, e.g., Al-Khafaji et al., 2014; Derrick et al., 2015). It has been suggested that co-responder team programs could reduce the number of potentially unnecessary ED referrals by resolving mental health CFS by other means (e.g., resolution at the scene, referral to services). In turn, co-responder teams are observed to enhance conversion rates from ED referral to hospital admission by appropriately identifying those individuals in the greatest need of hospital services (Dyer et al., 2015; Jenkins, 2017). As such, co-responder team programs are viewed as capable of diminishing the burden on the public health care system by limiting unnecessary referrals to the ED while ensuring that this level of care remains accessible to individuals who need it most (Fahim et al., 2016).

Research examining the impact of co-responder team programs on ED referrals provides mixed findings (Puntis et al., 2018; Shapiro et al., 2015). However, in many cases, studies suggest that mental health CFS managed by co-responder teams result in fewer transports to the ED (Baess, 2005; Helfgott et al., 2016; McKenna et al., 2015a; Meehan et al., 2018), particularly when compared to mental health CFS managed by police-only teams (Allen Consulting Group, 2012; Blais et al., 2020; Fahim et al., 2016). In a recent quasi-experimental evaluation, for example, Blais et al. (2020) found the implementation of a co-responder team was associated with a statistically significant decrease in the number of individuals in crisis transported to the hospital against their will, as well as significant reductions in the percentage of individuals transported to the hospital in general. Specifically, when comparing the disposition of crisis incidents managed by the co-responder team to similar incidents managed by police-only teams, Blais et al. (2020) observed marked differences in the percentage of incidents resolved by ED referral (28.1% of incidents managed by the co-responder team compared to 81.2% of incidents managed by police-only teams). However, the average treatment effect was found to diminish over time.

Findings from post-incident surveys of police officers provide additional evidence of the positive effects of co-responder team programs in preventing potentially unnecessary transports to the ED. For example, surveys examined by Meehan et al. (2018) suggest that the presence of a

mental health nurse through the secondary response of a co-responder team prevented the likelihood of transport during a 16-week trial program. Specifically, when first responding officers were asked how they intended to resolve the mental health CFS, almost 82% of the time, officers suggested their intent to transport the individual to the emergency department. However, with the secondary response from a co-responder team, only 23% of these calls resulted in ED referral (Meehan et al., 2018). Similarly, Fahim et al. (2016) found that police officers in Ontario, Canada, would have opted for transport to the hospital in 47.4% of CFS had a mental health professional co-responder not been present. Instead, only 31.2% of these calls were resolved by ED referral.

In addition to reducing the prevalence of ED referrals, co-responder teams have been observed to reduce the proportion of crisis incidents resulting in hospitalization (Heslin et al., 2017; Keown et al., 2016; Scott, 2000). Furthermore, although less common, a few studies have compared rates of conversion from ED referral to hospital admission across co-responder teams and police-only teams, finding higher rates of conversion when individuals are referred to the ED either directly by or following the advice of a co-responder team (Dyer et al., 2015; Jenkins, 2017). These preliminary findings suggest that co-responder teams may be more effective than police-only teams in identifying individuals in the greatest need of hospital services.

As suggested above, findings pointing to the role of co-responder team programs in reducing ED referrals are not universal. Indeed, several research studies suggest high ED referral and hospitalization rates for incidents managed by co-responder teams (Huppert & Griffiths, 2015; Lamb et al., 1995; Landeen et al., 2004; Lee et al., 2015; Lopez, 2016). Providing a stark contrast to the findings presented above, in their examination of nine months of administrative outcome data, Lamanna et al. (2018) found co-responding team interactions in Ontario were 2.3 times *more likely* to transport to the ED than interactions with the police-only team. Although, notably, police-only interactions were more likely to result in responder-initiated, involuntary transports. In an explanation of their findings, Lamanna and colleagues (2018) suggest the higher rates of transport by the co-responder team were due, in part, to more frequent mandated escorts predetermined by Ontario's Mental Health Act. Still, the co-responder team was more likely to complete voluntary and mandated escorts to the ED. For this finding, Lamanna et al. (2018) suggest the possibility that co-responding teams, particularly teams that provide a secondary response, are more likely to interact with service users that exhibit more serious mental health symptoms, warranting higher rates of ED referral. Further research is needed, however, to test the validity of this suggestion.

E. Promoting Cost Effectiveness

Although the goals of co-responder team programs are traditionally presented within a humanitarian framework, there is preliminary evidence that these programs may also be cost-effective for police agencies (Shapiro et al., 2015; Finn & Sullivan, 1989). Researchers across several studies have sought to understand the financial benefits of co-responder team programs to help inform stakeholder decision-making in allocating often-limited financial

resources. With few exceptions (see Heslin et al., 2017), findings from these initial studies suggest promising financial benefits produced from co-responder team programs. Although the specific costs associated with a program are dependent upon the characteristics and implementation of the co-responder team, both the average cost per behavioral health crisis response and overall annual costs for behavioral health response are typically observed to be less for co-responder teams when compared to traditional police responses (Allen Consulting Group, 2012; Baess, 2005; Dyer et al., 2015; Fitts & Robertson, 2017; Heslin et al., 2016; Scott, 2000). These findings must be interpreted with caution, however. Researchers consistently warn of the implications of data limitations that inhibit the completion of rigorous cost-benefit analyses. Indeed, sensitivity analyses suggest that the cost benefits reported in this research are a direct product of the assumptions made to generate cost estimates for behavioral health crisis response. These assumptions make any firm conclusions regarding the cost-effectiveness of co-responder team programs difficult. In sum, although preliminary evidence suggests financial benefits for police agencies, additional research on the cost efficiency of co-responder team programs is needed to fully understand the financial costs and benefits of this behavioral health crisis response.

IV. Stakeholders' Perceptions of Co-Responder Team Programs

In addition to assessing the impact of co-responder team programs on the outcomes outlined above, approximately half of the studies considered in this review included qualitative or survey methods to examine stakeholders' perceptions of the co-responder programs in their respective communities (see Appendix A for a list of studies). These studies provide insight on the *perceived* benefits of co-responder team programs from the perspectives of the police, behavioral health professionals, and clients that are either directly involved in or have come into contact with co-responder teams. Discussions with these groups also highlight several programmatic elements that may serve as facilitators or barriers to the effective implementation of co-responder team programs. Collectively, this qualitative research provides important implications for practice by recognizing the reservoir of support for the program among stakeholder groups and identifying factors contributing to a program's success. The findings from this research are described in greater detail below.

A. Benefits of Co-Responder Team Programs

Qualitative observations regarding the stakeholders' perceptions of co-responder team programs' strengths and benefits largely align with observations in quantitative evaluations. Stakeholders' consistently observed the capacity of co-responder teams to improve the process of response and outcomes for individuals experiencing behavioral health crises. Specifically, through the provision of behavioral health support and advice at the scene of these incidents, co-responder teams were perceived to de-escalate crisis incidents more effectively, avoiding unnecessary distress for service users and reducing the stigma associated with and/or criminalization of these incidents (Dyer et al., 2015; Horspool et al., 2016; Morabito et al., 2018). Studies suggest a high level of consumer satisfaction with the response and services provided by co-responder teams (Evangelista et al., 2016; Kisely et al., 2010; Ligon & Thyer,

2000). Both service users and their families were found to express appreciation for the teams' expertise, support, and assistance in accessing and navigating community-based services. Additionally, consumers spoke to improvements in their overall experience with police officers during crisis incidents, suggesting they felt listened to and respected in their interactions with the co-responder teams (Kirst et al., 2015). Areas for improvement in co-response were also identified, however. For example, some consumers suggested that co-responder teams should consider methods to reduce public scrutiny in crisis response produced by the presence of a police car at the location of the crisis, to increase behavioral health education and training among responding police officers, and to provide more intensive follow-up and communication following initial contact with the team (Evangelista et al., 2016).

Co-responder team programs were also described positively by police and behavioral health stakeholders (Dyer et al., 2015; Horspool et al., 2016), although there is some indication that the specific views vary across these professionals (see Lee et al., 2015). Benefits of co-responder team programs recognized by police and behavioral health stakeholders included: reducing the amount of police time spent on behavioral health-related CFS, reducing the use of jails to hold individuals in crisis, lowering rates of involuntary detentions, increasing access to behavioral health services, and decreasing repeat CFS (see, e.g., Saunders & Marchik, 2007). These outcomes were viewed as a direct product of the enhanced collaboration, communication, and understanding between police and behavioral health professionals (McKenna et al., 2015b).

A. Facilitators of Effective Program Implementation

As suggested previously, qualitative discussions with stakeholder groups also identified several programmatic elements that may serve as facilitators or barriers to the effective implementation of co-responder team programs (see, e.g., Bailey et al., 2018; Dyer et al., 2015; Kirst et al., 2015; Lee et al., 2015; McKenna et al., 2015b; Morabito et al., 2018; Robertson et al., 2020). These elements, broadly summarized into six inter-related categories, include: (1) establishing strong inter-agency collaboration, (2) outlining clear policies and procedures, (3) building the co-responder team, (4) advertising the program in the community, (5) identifying available behavioral health services, and (6) identifying funding. A brief description of each of these elements is presented in Table 3 above.

Table 3. Program Elements to Facilitate Effective Implementation

Element	Description
1. Establishing Strong Inter-Agency Collaboration	Effective implementation of co-responder team programs was viewed to rely upon consistent collaboration between public safety agencies and behavioral health service providers in the community. Those programs led by collaborative project governance – that is, those programs informed by the oversight of a multi-disciplinary group comprised of executive members from the partner organizations – were observed to experience fewer issues with inter-agency communication and trust, information sharing, and program problem solving / decision making.
2. Outlining Clear Policies & Procedures	Stakeholders consistently identified the importance of the development of clearly stated policies and procedures to facilitate police-behavioral health collaboration and coordinate on-scene responses by co-responder teams. The flexibility of some co-responder team programs – created purposefully to allow for fluidity in team response to evolving crises – led to a lack of understanding regarding the focus of co-responder teams' actions in the community. For this reason, stakeholders acknowledged the need to outline the roles and responsibilities of co-responder team members in crisis response, finding that this coordination facilitates more seamless team responses to behavioral health crises.
3. Building the Co-Responder Team	Stakeholders consistently suggested the importance of identifying appropriate police and behavioral health professionals for involvement in co-responder team programs. Difficulties were observed in finding behavioral health professionals with both the skillset and temperament suitable for riding with police officers in crisis response. Similarly, stakeholders noted the importance of selecting officers open to a service-oriented style of policing and, ideally, have lived experiences with behavioral health. Pertinent to team building, stakeholders acknowledged the importance of cross-training co-responder team members to introduce the professionals to the culture, philosophies, language, and procedures of the partner agencies.
4. Advertising the Program in the Community	Several studies identified the importance of communicating the goals of co-responder team programs across the first responder and behavioral health agencies within the communities. Indeed, low awareness of co-responder team programs among first responders and health care providers resulted in low or inappropriate use of the team within the community. Co-responder team members also suggested the utility of police leadership publicizing the program's operations to enhance community awareness of services.
5. Identifying Available Behavioral Health Services	The availability of behavioral health services is a crucial component of any police-based behavioral health crisis response. Difficulties in co-responder team program implementation related to limitations in behavioral health services were regularly observed across studies. Stakeholders indicated the importance of front-end efforts in program development to conduct an inventory of available behavioral services in the community and expanding those services where possible.
6. Identifying Funding	Limitations in funding were viewed as a primary barrier to the effective implementation of co-responder team programs. Funding limitations affected several aspects of the co-responder team programs under study, including staffing, hours of operation, and resources (e.g., cars, computers) available to the co-responders. Although many stakeholders identified the need to expand programs to enhance co-responder teams' capacity to respond to behavioral health-related CFS promptly, funding restraints often did not permit such expansion. There is a clear need to identify consistent funding streams to develop and sustain these programs over time.

V. Discussion

Co-responder team programs partner trained police officers and mental health professionals to respond to incidents involving individuals experiencing behavioral health crises. Adopted internationally, these programs merge the professional expertise of the police and behavioral health fields to improve the experiences and outcomes of persons in crisis using effective crisis de-escalation and the connection of individuals to appropriate behavioral health services instead of formal criminal justice intervention or unnecessary hospitalization.

The available research examining the processes and impact of co-responder teams provides preliminary evidence suggesting promising effects of this response model. Summarized in Table 4 below, the findings from this research indicate primarily positive impacts across the outcomes of enhancing crisis de-escalation, increasing individuals' connection to services, reducing pressure on the criminal justice and health care systems, and promoting cost-effectiveness. In turn, qualitative examinations of co-responder team programs, assessing stakeholders' perceptions of the key elements, and the teams' perceived benefits provide useful insights for crisis response in practice. Notably, many of the facilitators for effective program implementation identified in this research align with previous observations of the key ingredients for police-mental health collaborations (i.e., the 10 Essential Elements of Police-Mental Health Collaborations, Schwarzfeld et al., 2008).

Despite primarily positive findings, it should be noted that the substantial variation in the design and delivery of co-responder team programs – though demonstrating the capacity to tailor the program to the specific needs of communities – makes it difficult to generalize the findings from the available research across jurisdictions. Additionally, strong conclusions regarding the effects of co-responder team programs are constrained by the descriptive nature of existing research. Given these considerations, the co-responder team model is most appropriately labeled as a *promising practice* in police-based behavioral health crisis response.

A. Research Implications

Although the body of descriptive evidence has grown in the past 10 years – with over 70% of the studies identified in this review published in 2010 or later (see Appendix A) – there remains a lack of methodologically rigorous research (i.e., experimental and quasi-experimental designs) examining the impacts of co-responder team programs. Indeed, the majority of available evaluations rely on descriptive analyses and/or qualitative methods to assess programmatic effects. Fewer studies provide quantitative comparisons across the outcomes of interest before and after a co-responder team program is implemented. Fewer still consider differences in these outcomes across co-responder team and police-only responses to behavioral health crises. To better understand the effects of co-responder teams for individuals in crisis, the communities they work within, and the partner organizations that facilitate this type of response, additional research, using strong, controlled methods of evaluation, is needed.

Table 4. Summary of Findings from Quantitative Evaluations of Co-Responder Team Programs

Outcome	Findings
Enhancing Crisis De-escalation	Few evaluations have assessed the impact of co-responder team programs on crisis de-escalation. The limited evidence suggests co-responder teams may be effective in de-escalating crises, with CFS managed by co-responder teams associated with fewer incidents of force and low rates of injury. However, more research is needed to understand the program's effects on these outcomes.
Increasing Connection to Services	There is some evidence that co-responder teams facilitate the connection of individuals in crisis to behavioral health services. However, the rate of referral to these community resources varies substantially across programs. Although descriptive evidence suggests that individuals often engage in the services they are referred to, the available literature provides limited insight into the long-term outcomes for those individuals. More research is needed to understand program effects on rates of referral to services. Additionally, further study of the long-term effects of referral to services is needed.
Reducing Pressure on the Criminal Justice System	*Arrest* Descriptive analyses consistently suggest low rates of arrest by co-responder teams. However, more research is needed to understand whether these rates are significantly different from arrest rates produced in police-only responses to behavioral health crises. *Police Detentions* Examinations of co-responder team programs in the United Kingdom consistently report lower mental health detention rates by police when co-responder teams are active. However, reductions in police detentions may be dictated by the type of services provided by the co-responder team (i.e., ride-along versus remote support). More research is needed to understand the program's effects on this outcome. *Officers' Time Spent on CFS* There is some evidence that the implementation of co-responder team programs can reduce the amount of time spent by first responding officers when managing behavioral health crises (i.e., time spent on the scene, time spent in ED). However, it is observed that the time-saving capacity of co-responder teams is dictated by the availability and reach of these teams in the community.
Reducing Pressure on the Health Care System	The available research provides mixed findings on the capacity of co-responder teams to reduce pressure on health care providers. Several studies suggest that CFS managed by co-responder teams result in fewer transports to the ED, although others find the opposite. There is also evidence that co-responder teams reduce the proportion of crisis incidents resulting in hospitalization and higher rates of conversion from ED referral to hospitalization. More research is needed to understand the variability in these findings.
Promoting Cost Effectiveness	There is preliminary evidence regarding the cost benefits of co-responder team programs for police agencies. However, these findings are consistently accompanied by warnings regarding data limitations that impact analyses. More research is needed to provide a more rigorous understanding of these programs' financial effect on police agencies and their co-responding partners.

The scope of future research should address the gaps in the available literature. For example, although many studies provide qualitative assessments that discuss the process of the design and implementation of co-responder team programs more generally, there is a need to identify the elements of these programs (e.g., training, staffing, resources, protocols) and the impact of those elements on the outcomes of interest. Identifying the key ingredients of these programs – that is, outlining what works, how it works, and when it works – can provide a prescriptive model for co-response that facilitates the adoption of these programs across jurisdictions. This can be evaluated through well-designed, multi-method process evaluations that include both surveys and interviews with officers and other program staff and analyses of administrative records and, ideally, systematic social observation.

Future research should also consider the long-term outcomes of co-responder team programs. In particular, the current literature provides a limited discussion on individuals' experiences in crisis following their interactions with the co-responder team in their community (for exceptions, see Meehan et al., 2018; White & Weisburd, 2018). Examining the service-user experience following their initial contact with the co-responder team can provide important insights into individuals' interactions with the criminal justice and health care systems in the community. In turn, understanding these experiences in the long term can help identify gaps in current processes and services that might be remedied via police-behavioral health collaboration. Examining outcomes over time can also help identify high utilizers of police and behavioral health services in the community, providing the opportunity to tailor services to their needs to prevent future crisis incidents.

Finally, as the development and implementation of co-responder team programs continue, research must also examine the impact of this response on various populations, including people living with serious mental illness, people with intellectual and/or developmental disabilities, and people living with co-occurring mental health and developmental disabilities. As noted recently by Watson and colleagues (2019), although it is likely that co-responder teams regularly come into contact with these individuals, the available research does not examine the frequency of this contact nor the potential variation in co-responder team programs' effectiveness in responding to these populations.

Planning for data collection and evaluation of co-responder team programs as they are developed will be key in addressing these recommendations for research. Notably, data collection for program activities has been identified as a challenge for police-behavioral health partnerships (Morabito et al., 2018). Many police agencies lack systematic methods to track CFS involving behavioral health crises. Although these calls may be subsequently identified by reviewing narrative text within incident reports (when available), this process is time and resource-intensive. Furthermore, challenges related to information sharing across collaborating agencies (e.g., legality, confidentiality concerns, incompatible technologies) can present additional difficulties for the collection of data on outcomes of interest (Bailey et al., 2018; Horspool et al., 2016; Robertson et al., 2020). Navigating these issues before implementing the co-responder team program can facilitate the data-driven analysis of experiences in the community, improve co-responder teams' responses to individuals in crisis, and enhance the

assessment and review capacity of program effects. Indeed, identifying what information should be collected and shared, how, and by whom are integral processes for consideration in program design. Collectively, these investments in data collection and research can help answer questions about the overall effectiveness of co-responder team programs and provide important information for process improvement. In turn, the co-responder team model's advancement can continue to enhance the outcomes and experiences of individuals in crisis.

B. Conclusion

The co-responder team model is a collaborative approach to behavioral health crisis response that leverages police and mental health professionals' expertise to improve police-civilian interactions in crises, reduce the need for hospitalization, and increase the diversion of people away from the criminal justice system. Research examining the process and impact of co-responder team programs, although not without limitations, suggests this crisis response model may have value in enhancing crisis de-escalation, facilitating individuals' connection to services, reducing pressure on the criminal justice and health care systems, and promoting cost-effectiveness. More research is needed; however, before strong conclusions regarding the effects of co-responder teams in communities can be made. For this reason, the co-responder team model is best labeled as a *promising practice* in police-behavioral health collaboration for crisis response.

VI. References

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APPENDIX A. Evaluations of Co-Responder Team Programs

Author(s) / Year	Publication Type	Co-Responder Team Program	Location	Methodology	Outcomes of Interest
Abbott (2011)	Doctoral Dissertation	Framingham Jail Diversion Program	United States	Survey Analysis	• Perceptions of Program
Allen Consulting Group (2012)	Report	Police, Ambulance, and Clinical Early Response (PACER)	Australia	Mixed Methods: Quantitative Comparison & Qualitative Interviews	• Crisis De-escalation • Pressure on CJ System • Pressure on Health Care System • Cost Effectiveness • Perceptions of Program
Baess (2005)	Report	Integrated Mobile Crisis Team (ICMRT)	Canada	Mixed Methods: Descriptive Analysis & Qualitative Interviews	• Pressure on CJ System • Pressure on Health Care System • Cost Effectiveness
Bailey et al. (2019)	Peer-Reviewed Article	Mobile Crisis Assistance Team (MCAT)	United States	Qualitative: Focus Groups & Interviews	• Perceptions of Program
Balfour et al. (2017)	Peer-Reviewed Article	Mental Health Support Team (MHST)	United States	Descriptive Analysis	• Pressure on CJ System
Blais et al. (2020)	Peer-Reviewed Article	Mobile Crisis Intervention Team (MCIT)	Canada	Quasi-Experimental: Matched Comparison	• Crisis De-escalation • Connection to Services • Pressure on Health Care System
Brown et al. (2009)	Report	Crisis Intervention Services	United States	Descriptive Analysis	• Pressure on CJ System
Dyer et al. (2015)	Peer-Reviewed Article	Cleveland Street Triage	United Kingdom	Mixed Methods: Descriptive Analysis & Qualitative Interviews	• Connection to Services • Pressure on CJ System • Pressure on Health Care System • Cost Effectiveness • Perceptions of Program
Evangelista et al. (2016)	Peer-Reviewed Article	Alfred Police and Clinical Early Response (A-PACER)	Australia	Qualitative: Interviews	• Perceptions of Program

Author(s) / Year	Publication Type	Co-Responder Team Program	Location	Methodology	Outcomes of Interest
Fahim et al. (2016)	Research in Brief	Mobile Crisis Rapid Response Team (MCRRT)	Canada	Mixed Methods: Pre/Post Comparison & Survey Analysis	• Pressure on CJ System • Pressure on Health Care System
Finn & Sullivan (1989)	Peer-Reviewed Article	Multiple Programs	United States	Descriptive Analysis	• Connection to Services • Pressure on CJ System • Cost Effectiveness
Fitts & Robertson (2017)	Report	Cairns Mental Health Co-Responder Model	Australia	Mixed Methods: Descriptive Analysis, Survey Analysis, & Qualitative Interviews	• Crisis De-escalation • Cost Effectiveness • Perceptions of Program
Helfgott et al. (2016)	Peer-Reviewed Article	Crisis Response Team (CRT)	United States	Descriptive Analysis	• Connection to Services • Pressure on CJ System • Pressure on Health Care System
Heslin et al. (2016); Heslin et al. (2017)	Peer-Reviewed Articles	Street Triage	United Kingdom	Quasi-Experimental: Pre/Post Comparison	• Pressure on CJ System • Pressure on Health Care System • Cost Effectiveness
Horspool et al. (2016)	Peer-Reviewed Article	Street Triage	United Kingdom	Qualitative: Interviews	• Perceptions of Program
Huppert & Griffiths (2015)	Peer-Reviewed Article	Police Ambulance Crisis Emergency Response (PACER)	Australia	Descriptive Analysis	• Connection to Services • Pressure on CJ System • Pressure on Health Care System
Iacoboni (2015)	Master's Thesis	Mental Health Evaluation Team	United States	Mixed Methods: Descriptive Analysis, Pre/Post Comparison, Survey Analysis, & Qualitative Interviews	• Pressure on CJ System • Pressure on Health Care System • Perceptions of Program
Jenkins et al. (2016)	Peer-Reviewed Article	Two Un-Named Programs	United Kingdom	Quasi-Experimental: Pre/Post Comparison & Model Comparison	• Pressure on CJ System • Pressure on Health Care System

Author(s) / Year	Publication Type	Co-Responder Team Program	Location	Methodology	Outcomes of Interest
Keown et al. (2016)	Peer-Reviewed Article	Street Triage	United Kingdom	Quasi-Experimental: Pre/Post Comparison	• Pressure on CJ System • Pressure on Health Care System
Kirst et al. (2015)	Peer-Reviewed Article	Mobile Crisis Intervention Team (MCIT)	Canada	Qualitative: Focus Groups & Interviews	• Perceptions of Program
Kisely et al. (2010)	Peer-Reviewed Article	Mental Health Mobile Crisis Team (MHMCT)	Canada	Mixed Methods: Controlled Pre/Post Comparison & Qualitative Focus Groups, Interviews	• Connection to Services • Pressure on CJ System • Perceptions of Program
Lamanna et al. (2018)	Peer-Reviewed Article	City of Toronto Mobile Crisis Intervention Team (MCIT)	Canada	Mixed Methods: Descriptive Analysis & Qualitative Interviews	• Crisis De-escalation • Pressure on CJ System • Pressure on Health Care System • Perceptions of Program
Lamb et al. (1995)	Peer-Reviewed Article	Los Angeles Systemwide Mental Health Assessment Response Team (SMART)	United States	Descriptive Analysis	• Pressure on CJ System • Pressure on Health Care System
Landeen et al. (2004)	Peer-Reviewed Article	Crisis Outreach and Support Team (COAST)	Canada	Descriptive Analysis	• Pressure on Health Care System
Lee et al. (2015)	Peer-Reviewed Article	Police and Clinical Early Response (A-PACER)	Australia	Mixed Methods: Descriptive Analysis & Survey Analysis	• Pressure on Health Care System • Perceptions of Program
Ligon (1997)	Doctoral Dissertation	Dekalb County (GA) Mobile Crisis Team (MCT)	United States	Survey Analysis	• Perceptions of Program

Author(s) / Year	Publication Type	Co-Responder Team Program	Location	Methodology	Outcomes of Interest
Ligon & Thyer (2000)	Peer-Reviewed Article	Dekalb County (GA) Mobile Crisis Team (MCT)	United States	Survey Analysis	• Perceptions of Program
Lopez (2016)	Master's Thesis	Los Angeles Systemwide Mental Health Assessment Response Team (SMART)	United States	Descriptive Analysis	• Pressure on CJ System • Pressure on Health Care System
McKenna et al. (2015a) McKenna et al. (2015b)	Peer-Reviewed Article	Northern Police and Clinician Emergency Response (N-PACER)	Australia	Mixed Methods: Pre/Post Comparison & Qualitative Interviews	• Pressure on Health Care System • Perceptions of Program
Meehan et al. (2018)	Peer-Reviewed Article	West Moreton Mental Health Co-Responder Program (MH-CORE)	Australia	Descriptive Analysis	• Pressure on Health Care System
Morabito et al. (2018)	Peer-Reviewed Article	Boston Police Department's Co-Responder Program	United States	Mixed Methods: Descriptive Analysis & Qualitative Interviews	• Connection to Services • Pressure on CJ System • Perceptions of Program
Robertson et al. (2020)	Peer-Reviewed Article	Cairns Mental Health Co-Responder Model	Australia	Qualitative: Focus Groups & Interviews	• Perceptions of Program
Saunders & Marchik (2007)	Peer-Reviewed Article	Polk County (IA) Mobile Crisis Response Team (MCRT)	United States	Mixed Methods: Survey Analysis & Qualitative Interviews	• Perceptions of Program
Scott (2000)	Peer-Reviewed Article	Dekalb County (GA) Mobile Crisis Unit	United States	Mixed Methods: Descriptive Analysis & Survey Analysis	• Pressure on CJ System • Pressure on Health Care System • Cost Effectiveness
White & Weisburd (2018)	Peer-Reviewed Article	Co-responder Hot Spot Outreach Team (CHSOT)	United States	Mixed Methods: Descriptive Analysis & Qualitative Interviews (Process Evaluation)	• Connection to Services • Perceptions of Program