Mobile Crisis Services

Impact Analysis and Cost Effectiveness Study

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Mental Health Crisis Alliance
Metro Children's Crisis Services

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Background

Minnesota's mental health system has experienced pressures on a number of fronts in recent years. Although the system is under stress, the nature of having to deal with funding and services gaps has also necessitated a focus on innovation.

During the 1980s and 1990s, several hospitals that permanently housed people with disabilities and with mental health needs were closed. Policy makers and service providers have since prioritized person-centered and community-based care, but gaps remain in the availability of these services. In addition, limited availability of affordable and/or supported housing, family support services, and culturally-specific services have left many people underserved in several of the domains of a high quality of life necessary for maintaining mental health.

In the midst of these challenges, counties are innovating with new service delivery models. In the 7-County Metro Area (Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington), mobile crisis teams work within communities to help individuals experiencing a mental health crisis. While the crisis teams have different models and offer a different array of services, each team at minimum provides phone support, crisis screening assessment, and crisis intervention. These teams are proving effective in both handling the specific needs of an individual as well as providing supports to other systems that are wrapped into the mental health care system.

About the Study

In 2016, the Mental Health Crisis Alliance and the Metro Children's Crisis Services contracted with The Improve Group to conduct an impact analysis and cost effectiveness study of mobile crisis teams in the 7-County Metro Area. The focus of this study is to articulate and document the value of mobile crisis teams in order to build deeper understanding of mobile crisis programs at the state and local level.

Research Questions

The study seeks to answer the following questions:

1) **What are the key impacts of metro area mental health mobile crisis teams?**
   - What are the impacts on consumers and their families?
   - What are the system impacts?
   - What are the economic impacts?
2) **What is the cost effectiveness of mobile crisis teams?**
   - What are the costs of services and alternatives associated with mental health crisis?
   - What is the value of the economic impacts associated with mental health crisis services provided by mobile crisis teams?

Data Collection

The study used a mixed method approach, using both qualitative and quantitative data to estimate the impact and cost effectiveness of metro area mental health crisis teams. Sources of data included:

- A collaboration with Minnesota Management and Budget, which conducted a benefit-cost analysis of adult mental health programs in 2016 and literature review
- Data provided by the individual mobile crisis teams
- 8 Interviews with mobile crisis teams
- 9 Interviews with system stakeholders (healthcare, criminal justice, schools, human services, and other community providers)

Image from the Metropolitan Council

Key Impacts

The impact analysis and cost effectiveness study found that mobile crisis teams impact individuals, families, and other systems in a variety of different ways. While much overlap exists, each finding was categorized into one of four impact categories: (1) Health, Safety, and Prevention; (2) Support; (3) Navigation; and (4) Cost Effectiveness.

Health, Safety, and Prevention

Mobile crisis teams have unique skillsets and are able to deliver early interventions that help ensure the safety of individuals during mental health crises - diverting them from negative outcomes and potentially traumatic events.
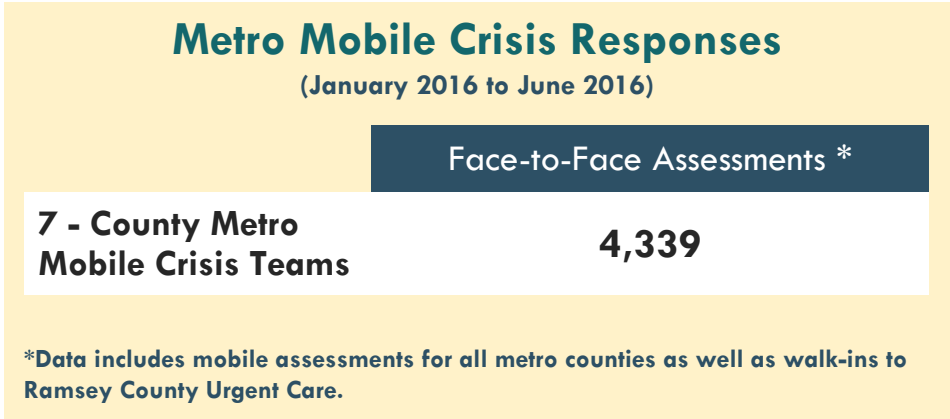
Support

Mobile Crisis teams positively impact local systems (healthcare, criminal justice, schools) by diverting people out of systems that were not designed assist with mental health crises; other professionals value their expertise when helping individuals experiencing mental health crises.

Navigation

Mobile crisis teams help people navigate the mental healthcare system and get connected with the services they need to maintain stable mental health after experiencing crises.

Cost Effectiveness

Mobile crisis programs are cost effective. For every dollar invested in a mobile crisis program, the state receives $3.90 in benefits. The primary benefits are due to mobile crisis teams diverting individuals from inappropriate settings, reducing hospitalization, and preventing crime.

Metro Mobile Crisis Responses
(January 2016 to June 2016)

	Face-to-Face Assessments *
7 - County Metro Mobile Crisis Teams	**4,339**

*Data includes mobile assessments for all metro counties as well as walk-ins to Ramsey County Urgent Care.

Data was provided by the seven metro county mobile crisis teams. Teams currently track different levels of data and have different reporting methods, so consistent information on assessments could only be gathered for the first half of 2016 at the time of this report.

Consumer Impacts

One of the primary goals of this study is to document the major impacts that the mobile crisis teams have on individuals and families with whom they interact. Interactions can include anything from a quick phone call to a face-to-face interaction with a dispatched mobile crisis team member.

Health, Safety, and Prevention

Mobile crisis teams use a person-centered approach and clinical expertise to help individuals address mental health crises, ensuring their health and safety

Individuals call mobile crisis lines for a wide variety of different mental health reasons including depression, anxiety, psychosis, and self-injurious/suicidal ideation. By providing individuals and families with the ability to have mental health professionals come to them, mobile crisis programs help reach people before extreme traumatic events.

Mobile crisis teams also provide individuals and families with valuable information regarding their mental health treatment so they can immediately address crisis and avoid future emergencies. These conversations may involve answering questions about medications (dosages, side effects, etc.) and counseling individuals or family members about mental health conditions and the different options for treatment. In helping them address these issues early, mobile crisis teams can help prevent individuals' mental health from deteriorating to the point where more intensive care is necessary. The majority of mobile crisis teams indicated that they also conduct some type of follow-up or a check-in call the day after initially providing interventions.

Mobile crisis teams assess situations, deliver interventions, and involve other professionals when appropriate

One of the major themes coming from interviews was the clarification of the role mobile crisis teams have in diverting individuals from certain outcomes. It was shared that the goal of providing mobile crisis is not just to simply reduce the number of hospitalizations and calls to law enforcement, but that the focus is actually on reducing *unnecessary* hospitalization or police involvement.

Mobile crisis intervention is effective because it directs individuals to systems specifically designed to deal with mental health crises, which is a job that requires cooperation between multiple stakeholder groups. To ensure the health and safety of those they serve, mobile crisis teams may need to direct them to hospitalization or involve law enforcement. Interviewees shared that hospitalization is sometimes the most appropriate and best option and, when appropriate, mobile crisis teams work to ensure individuals receive that level of care. Mobile crisis teams may also call upon law enforcement when they need assistance stabilizing situations and to address the immediate safety of those involved in the crisis.

Navigation

Mobile crisis teams play a crucial role in getting individuals with mental health issues connected to services

Some people who access mobile crisis teams may be isolated and/or would not initiate nor seek treatment for themselves without the team's assistance. The mental healthcare system is complex and there are many people hesitant to get involved with the system at all. Mobile crisis teams assess individuals and their specific needs. They have strong connections with crisis stabilizations services and also have knowledge of local providers. Through

their assessment and connections, mobile crisis teams are able to connect people to the most appropriate therapy, psychiatric, and counseling services to help them sustain positive mental health.

Mobile crisis teams help individuals and families problem-solve non-mental health issues, connecting them with other means of support

Several mobile crisis teams shared that problem solving is a significant role they play to help individuals stay in the least restrictive setting. This support sometimes extends outside the realm of referring mental health services.

Mobile crisis teams provide a large number of phone consultations. These conversations are wide ranging, but teams shared that before they can truly address a person's mental health needs, they sometimes must address that person's basic needs (housing, food, etc.). This means providing referrals to non-mental health resources. Common non-mental health referrals include: homeless shelters, food shelves, chemical health/detox, and employment assistance. Many team members indicated that this phone support is one of the most important services they provide.

The mobile crisis team's ability to look at people holistically and provide more than just mental health support is a crucial of part of what they do. A 2015 MN Department of Human Services (DHS) Gap Analysis study found that many mental health services do not meet demand. The study also found that adults with mental illness commonly reported needing help with housing (21%), personal support/companion services (19%), and supported employment or help finding a job (19%).[1]

Other research has similarly indicated that addressing people's physical health and employment - in addition to - providing mental health services leads to more positive outcomes. A 2010 research study of an intervention program developed by DHS found that offering people with serious mental illness (SMI) a comprehensive set of health, behavioral health, and employment services led to increased earnings, improved mental health status, and less delay in accessing health care services.[2]

Location of Face to Face Assessments

Adults (July 2015 to June 2016)	
Client Residence	**47%**
Crisis Team Office	21%
Emergency Dept.	10%
Private Residence (Not Client's)	4%
School	4%
Other	4%
Jail	3%
Public Location	3%
Homeless Shelter	2%
Other Mental Health Provider	2%

Children* (January 2016 to June 2016)	
Client Residence	**48%**
School	26%
Emergency Dept.	17%
Crisis Team Office	3%
Other	1%
Other Mental Health Provider	1%
Private Residence (Not Client's)	1%
Public Location	1%

*Children data only includes 6 of the 7 Metro Counties

This data was provided by the Department of Human Services. While it does not include location information for every individual assessed by metro crisis teams during the time period, it is believed to be an accurate representation of assessment locations.

Phone Support

A significant portion of the work that mobile crisis teams do is related to phone services that never end up necessitating a face-to face visit. As an example, from January to September 2016, **45% of one metro county's calls included providing information and referral only.**

While some phone consultations can be a few minutes, others can take much longer and require crisis workers to conduct extensive assessments and therapeutic support for individuals. However, mobile crisis teams can only bill for when they meet with people face-to-face, meaning that **they cannot bill for the time they spend providing this valuable phone support.**

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[1] Wilder Research. (2015). *DHS Gap Analysis Study: Chapter 5*. Saint Paul: Minnesota Department of Human Services
[2] The Lewin Group. (2010). *Minnesota Demonstration to Maintain Independence and Employment: Final Outcome Evaluation Report*. State of Minnesota.
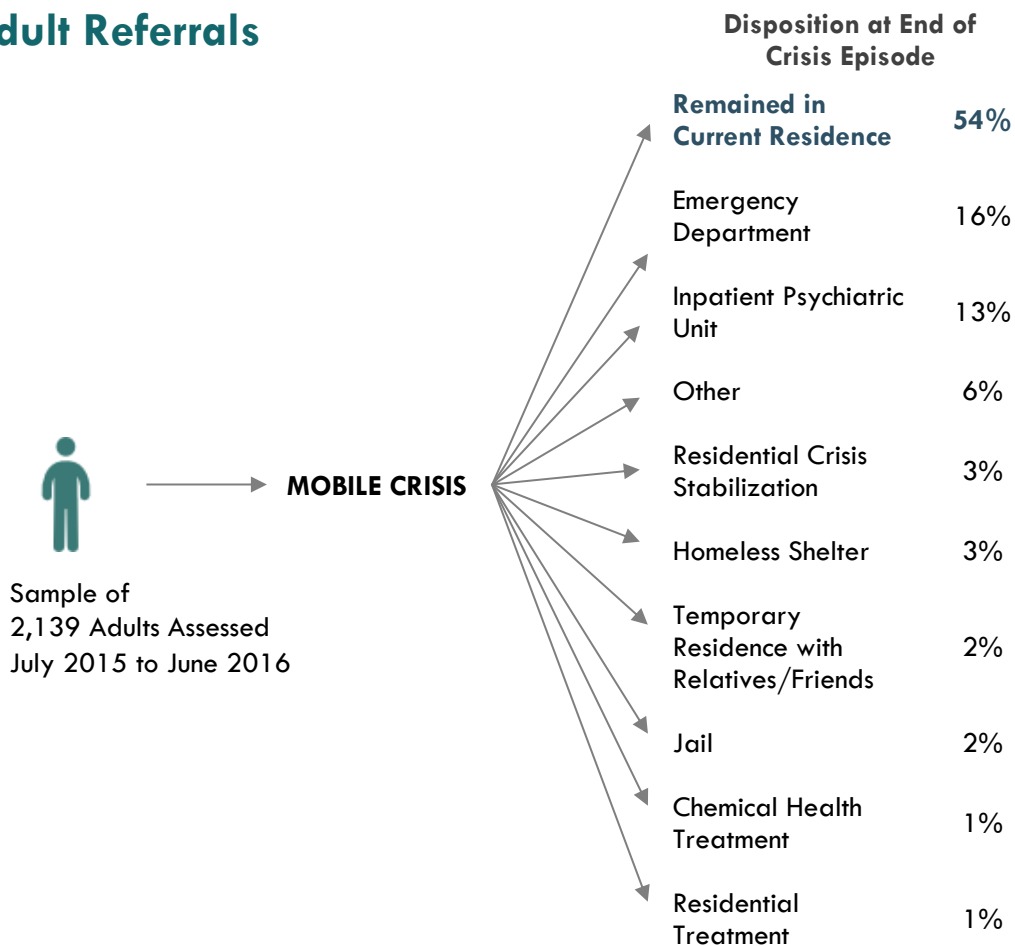
System Impacts

Data collected by the Department of Human Services shows that the majority of adults (Figure 1) and children (Figure 2) assessed by metro mobile crisis teams are able to stay in their current residences following interventions. However, mobile crisis teams may need to refer individuals to other services in order to ensure that they receive the appropriate level of care. This means the work they do has impacts on many other systems.

One goal of this study was to gain a better understanding of some of these impacts in order to get a more complete picture of the value these programs provide. The systems that mobile crisis teams were found to have the highest level of impact on were healthcare, criminal justice, schools, and human services.

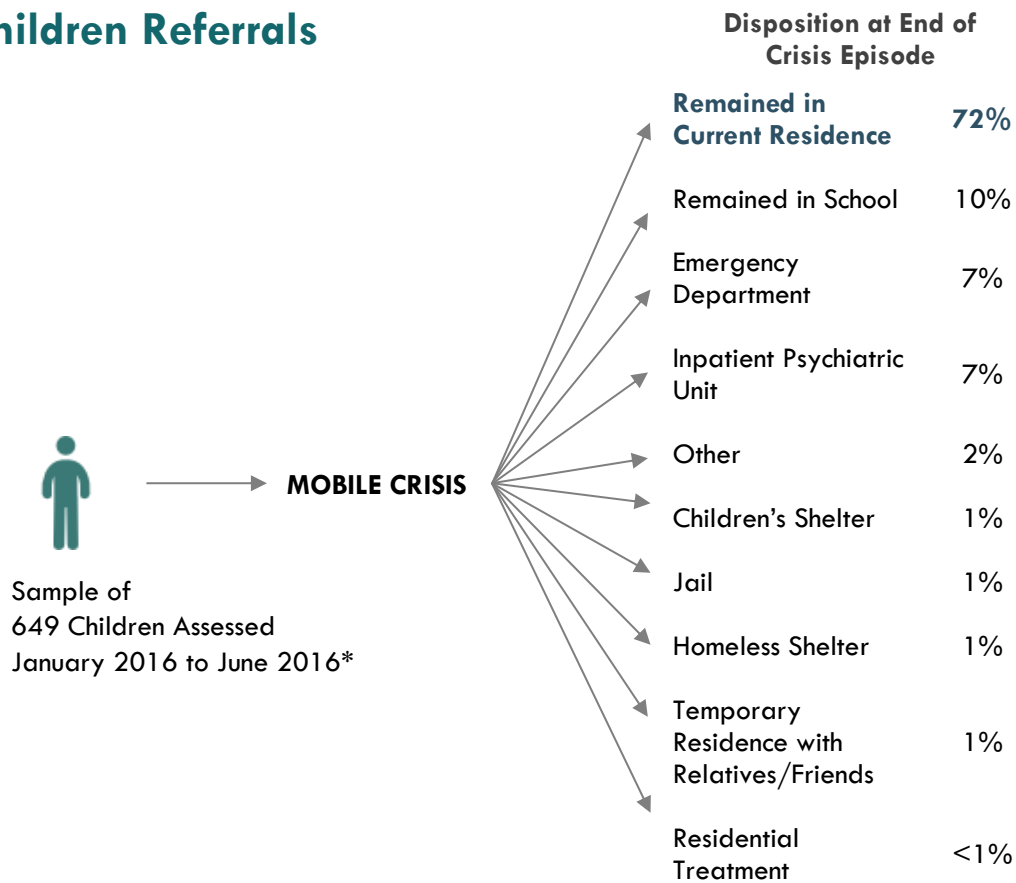**Figure 1: Metro County Mobile Crisis Adult Referrals**

Metro County Mobile Crisis Adult Referrals

Disposition at End of Crisis Episode

MOBILE CRISIS

Sample of
2,139 Adults Assessed
July 2015 to June 2016

Disposition	Percentage
Remained in Current Residence	**54%**
Emergency Department	16%
Inpatient Psychiatric Unit	13%
Other	6%
Residential Crisis Stabilization	3%
Homeless Shelter	3%
Temporary Residence with Relatives/Friends	2%
Jail	2%
Chemical Health Treatment	1%
Residential Treatment	1%

This data was provided by the Department of Human Services. While it does not include disposition information for every individual assessed by metro crisis teams within the time period, it is believed to be an accurate representation of dispositions.

Metro County Mobile Crisis Children Referrals

Disposition at End of Crisis Episode

Disposition	%
Remained in Current Residence	**72%**
Remained in School	10%
Emergency Department	7%
Inpatient Psychiatric Unit	7%
Other	2%
Children's Shelter	1%
Jail	1%
Homeless Shelter	1%
Temporary Residence with Relatives/Friends	1%
Residential Treatment	<1%

Sample of
649 Children Assessed
January 2016 to June 2016*

MOBILE CRISIS

*Children data only includes 6 of the 7 counties

This data was provided by the Department of Human Services. While it does not include disposition information for every individual assessed by metro crisis teams within the time period, it is believed to be an accurate representation of dispositions.

Healthcare

While mobile crisis teams aim to divert those in crisis from the hospital whenever possible, hospitalization sometimes the best option for the individual and one of the more common referrals. Medical professionals also increasingly refer individuals to the mobile crisis team in hopes that they can avoid future emergency room visits by utilizing the mobile resource including crisis stabilization services.

"If somebody doesn't need to be hospitalized or does not immediately need medication, the crisis team is a way better first line. (It's) less expensive and I think more patient-friendly, frankly, to most folks." – Healthcare Interviewee

Health, Safety, and Prevention

Mobile crisis teams ensure that individuals get the needed level of care at the right time

Emergency rooms are commonly known resources for those experiencing mental health crises. However, they are not designed nor equipped to handle individuals with complex mental health needs in addition to the number of people coming in for medical emergencies. Those who go to the emergency room needing mental health treatment but not hospitalization may get released without getting full treatment or establishing services. Mobile crisis teams can offer more timely, patient-friendly supports that connect people with community mental health providers.

Support

Mobile crisis teams provide valuable support to medical professionals when referring individuals to hospitalization

Interviewees shared that hospitals experience an overabundance of people coming to the hospitals who do not end up being admitted because it is not the appropriate place to treat them. Clinical expertise and knowledge of the healthcare system allow mobile crisis teams to accurately assess when people need to be hospitalized. Interviewees shared that a high percentage of people the teams refer end up getting admitted. As an emergency service, mobile crisis teams can share situational information with medical professionals to help them be as informed as possible when treating an individual in crisis. Mobile crisis teams provide medical professionals with valuable clinical information, including symptom presentation, professional diagnosis, and recommendations for treatment. They may also provide medical professionals with crucial background information, including names and contact information for family members or others involved with the person in crisis.

Cost Effectiveness

Mobile crisis teams connect people with services that lead to decreased utilization of some expensive healthcare services

Research has shown that crisis stabilization services helps decrease people's use of emergency medical services. A 2013 study found that having used crisis stabilization services significant decreased utilization of the emergency department utilization and inpatient hospitalization, even for those who were considered "high-frequency users" previously. The study also found that crisis stabilization significantly decreased mental health-related admissions.[3]

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[3] Wilder Research. (2013). *The impact of community-based mental health crisis stabilization*. Mental Health Crisis Alliance.

Criminal Justice

Mobile crisis teams and police officers work together to help ensure a safe resolution for everyone involved in a mental health crisis situation. Both groups can be dispatched to a scene at the same time or they refer to one another once they encounter an individual in crisis and deem a referral is necessary.

"It is helpful to know that they are on scene and are gathering information and will be there to greet us and update us on what is going on. These are people we can trust to get us the right information. It helps us navigate the call that much easier." – Law Enforcement Interviewee

Health, Safety, and Prevention

Mobile crisis provides individuals and their families with an alternative to involving law enforcement

While some situations require the involvement of law enforcement to ensure the immediate safety for those involved, there are many other instances where accessing a mental health professional is much more appropriate. Interviewees shared that some cultural communities have varying levels of apprehension about contacting police and that they feel much more comfortable calling a crisis line first. Mobile crisis teams can work with the individual and make a more informed determination of whether or not to involve law enforcement.

Interviewees indicated that having the mobile crisis as an alternative solution is also of great value to law enforcement agencies. Most 911 call centers, especially those in the metro, receive thousands of calls each day requesting the assistance of law enforcement. Interviewees shared that there are many people who are frequent callers to 911 due to varying mental health conditions. Those callers can be referred to the mobile crisis team instead and be seen by a professional who has the time and skillset to address their underlying mental health issues.

Support

The experience and mental health expertise of the mobile crisis team supplements what law enforcement officers can provide

Police are traditionally the first to be called to deal with people experiencing mental health emergencies. They are responsible for either recognizing the need for mental health treatment or making the determination that the individual's illegal activity is the primary concern and that the person should be arrested. Interviewees emphasized the value of police officers being able to quickly access mental health professionals when dealing with complex situations and individuals. While law enforcement agencies in the metro are continuing to increase their number of officers that have undergone Crisis Intervention Training (CIT), it was shared that involving the mobile crisis team allows law enforcement to do their primary job - ensuring the person's safety and enforcing the law.

Mobile crisis teams can answer specific questions about medications and mental health conditions that law enforcement cannot. They frequently offer background information on the individual to help contextualize the situation in terms of the individual's past history and outcomes. This information can be vital to helping law enforcement interact and divert individuals to appropriate care.

Collaboration between mobile crisis teams and law enforcement is increasing, allowing both to have roles in addressing imminent safety concerns and delivering appropriate interventions

While mobile crisis teams reported varying levels of interaction with law enforcement, most indicated that they frequently receive requests to go out and assist on calls that involve people who are possibly experiencing mental health crises. Teams shared that relationships with law enforcement have been improving in recent years and that police now have a better understanding of what mobile crisis does and how they can utilize them.

911 and Mobile Crisis

Minnesota's metro counties have placed more emphasis on connecting mobile crisis teams to 911 communications centers. By training communications staff about what the teams do, they can possibly redirect a call that necessitates their expertise or dispatch the mobile crisis team and law enforcement officers together.
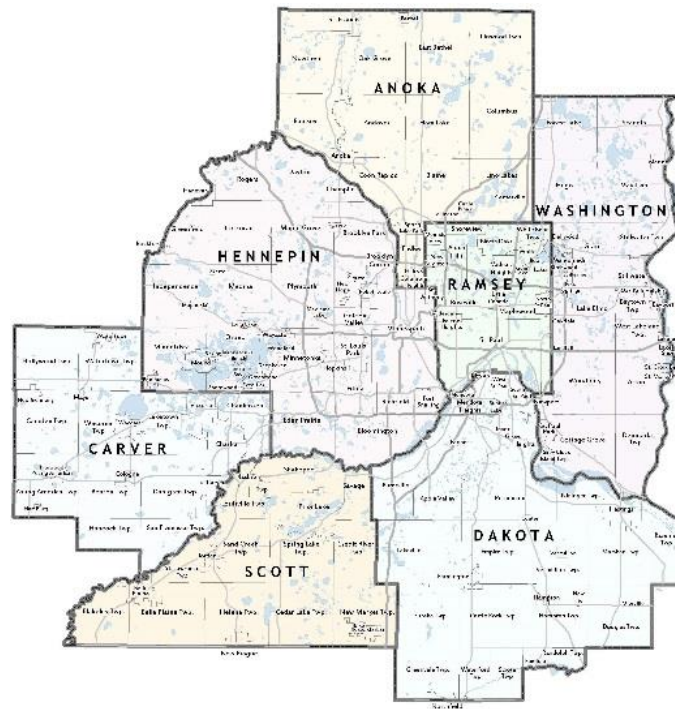

Image from the Metropolitan Council

Schools	While mobile crisis teams are required to get parental/guardian consent, they can be dispatched immediately to schools if there is an imminent safety concern with a student in crisis. Mobile crisis team members meet with the child to discuss concerns and then work with school staff and parents/guardians (whenever possible) to make decisions that focus on the child's safety.

"You never want to make big decisions in isolation when a kid is in crisis. You want to collaborate." – School Interviewee

Support

Mobile crisis is a valuable resource for school social workers when they need assistance assessing complex situations and communicating with families

Multiple interviewees indicated that school staff appreciate that they can call on the mobile crisis team to give them an extra set of eyes on a situation. They shared that it is extremely beneficial to have another professional verify their assessments of students and ensure the appropriate actions are taken. Interviewees also said that the relationships school social workers have established with students and families can complicate situations even more. The mobile crisis team allows them to take a step back and hear an objective opinion from a mental health expert.

Navigation

Mobile crisis team interventions can divert students from placements that may be detrimental

Interviewees shared that mobile crisis involvement can help students avoid negative outcomes such as entering the juvenile justice system, removal from mainstream school programs, and hospitalization. Research has found that in addition to being expensive, inpatient treatment can be highly disruptive for children and families. Studies have yielded conflicting results about the effectiveness inpatient treatment preventing future behavioral health crises.[4]

Interviewees shared that involving the mobile crisis team in situations can increase the likelihood that the student and family gets connected to needed services that improve students' long-term behavioral issues and mental health.

School Outreach

Metro mobile crisis teams conduct regular outreach activities to the school districts in their respective counties to inform schools about their work and raise awareness about the services they can provide. Some teams also provide school staff with training on how to approach situations where students may be experiencing mental health crises.

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[4] Shannahan, R.; Fields, S. (2016). *Services in Support of Community Living for Youth with Serious Behavioral Health Challenges: Mobile Crisis Response and Stabilization Services*. Substance Ause and Mental Health Service Administration.

Human Services

As a county service themselves, mobile crisis teams typically have close connections with other services in the county. For those receiving county case management, contact information for the mobile crisis team is often included in their community support plans and crisis plans.

"The mobile crisis team gives us a second set of eyes on what is probably a challenging situation for the client." – Human Services Interviewee

Navigation

Contacting the mobile crisis team can be an entry point for many people to access case management and other county services

While interviewees indicated that the majority of people obtain county case management through either a self-referral or by being referred another community provider, they shared that there are still many individuals who do not know about county services or are hesitant to get involved with the system. The mobile crisis team, through their interactions with people in the community, can make an assessment and let people know that there are county services that can help them. This includes case management, adult and child protection, and economic assistance services. Mobile crisis teams can help people take the first step by facilitating initial communications with county staff and maybe even expedite the process of getting services.

Support

County staff utilize mobile crisis teams for consultation and as a resource for clients in crisis

When case managers have concerns about someone on their caseload, they may notify a mobile crisis team to go and check on the individual. Interviewees shared that it is very beneficial that mobile team members have the ability to do go to meet the individuals in their home and provide clinical interventions like motivational interviewing and help people decide that getting additional help is needed or in their best interest.

When mobile crisis teams receive a call or encounter someone in crisis who already has a case manager, there is often open communication between the team and the person's case manager. The case manager is then able to pick up where the mobile team left off to address any other needs the person may have after the crisis.

Mobile crisis teams can provide additional support for families

Interviewees shared that mobile crisis teams may be contacted by child protection workers to help assist with situations in which parents or foster parents are having difficulties managing children with mental health needs. Mobile crisis teams provide extra support and direct them to additional help or services if needed in order for the children to stay in the home.

Overall Cost Effectiveness

In 2016, Minnesota Management and Budget (MMB) looked at the benefits and costs associated with different mental health services offered in the state to determine their cost effectiveness (Figure 3). The study examined benefits associated with state and federal taxpayers (criminal justice and hospitalization costs) and other societal benefits. They found that a large portion of the benefits associated with mobile crisis programs are societal benefits related to the reduction of hospitalizations ($102 per participant) and crime victimization ($1,080).[5]

Figure 3: Estimated benefit-cost ratios for crisis response services

	Per participant benefits	Net cost per participant	Benefit-cost ratio	Components of benefit-cost ratio Taxpayers (Blue) & Society (Yellow)	
Mobile Crisis Response	$1,710	$430	$3.90	$1.20	$2.70

Adult Mental Health Benefit-Cost Analysis. Minnesota Management and Budget

The MMB report found that mobile crisis programs have proven effective at decreasing hospitalization and crime, resulting in an **overall Benefit-Cost Ratio of $3.90**. This means that for every dollar invested in a mobile crisis program, the state gets $3.90 in benefits. This equates to about **$1,280 in net benefits per person**.

While the MMB benefit-cost ratio was the highest of all mental health services examined, it could only account for the benefits resulting from reduced hospitalization and crime due to the research available. The results of the Mobile Crisis Impact Analysis and Cost Effectiveness Study have shown that in addition to diverting people from going to the hospital or jail, mobile crisis teams connect people to other cost effective mental health programs in the community – many of which MMB was able to draw other long-term benefits (Figure 4). For instance, the net benefits of a community service like Certified Peer Specialists ($1,310 per person) and a basic clinical service like Cognitive Behavioral Therapy ($36,930 per person) are primarily due to increased earnings (employment and job stability). These are the kinds of services that mobile crisis teams routinely help people get connected to.

Figure 4: Estimated benefit-cost ratios for other community services and supports

	Per participant benefits	Net cost per participant	Benefit-cost ratio	Components of benefit-cost ratio Taxpayers (Blue) & Society (Yellow)	
Certified Peer Specialist	$1,810	$500	$3.60	$0.50	$3.10
Individual Placement and Supports	$1,520	$710	$2.10	$0.50	$1.80
Behavioral Health Homes	$200	$150	$1.40	$0.80	$0.60
Illness Management Recovery	$1,250	$880	$1.40	$0.30	$1.10
Wellness Recovery Action Plan	$370	$460	$0.80	$0.30	$0.70

Adult Mental Health Benefit-Cost Analysis. Minnesota Management and Budget

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[5] Merrick, W; Shuey, K; Bernardy, P. Adult Mental Health Benefit-Cost Analysis. Minnesota Management and Budget. https://mn.gov/mmb-stat/results-first/adult-mental-health-report.pdf

Given that mobile crisis have been shown to have many other impacts outside of just hospitalization and crime, the MMB report's summation of benefits is likely a conservative floor of the total benefits that mobile crisis teams provide.

Final Thoughts

The findings from the Mobile Crisis Impact Analysis and Cost Effectiveness Study illustrate that mobile crisis teams are cost effective and impactful programs that deliver many great benefits to individuals and in coordination with various systems.

Information gathered from stakeholders shows that mobile crisis teams are valuable partners in addressing complex issues in systems that face many challenges meeting the needs of individuals. Additionally, this report shows that the benefits provided by mobile crisis teams is not exclusive to those experiencing mental health crises, but to anyone in the community who needs assistance.

This report also found that mobile crisis programs are extremely cost effective, helping people who would typically experience negative outcomes and costly placements and diverting them to less expensive, more appropriate community services.

These findings suggest that more funds should be allocated toward increasing the capacity of these existing mobile crisis teams and developing similar programs in areas of the state that do not currently have them.