OneCall Pilot: Program Evaluation

A Vulnerable Populations Strategic Initiative (VPSI) project of the Emergency Medical Services (EMS) Division, Public Health – Seattle & King County

In partnership with Bellevue Fire Department, Crisis Connections, Seattle Fire Department, Shoreline Fire Department, South King Fire & Rescue, and Valley Regional Fire Authority

Prepared by:
Rachel Ross
MPHc in Health Services Program
School of Public Health
University of Washington
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Introduction

First responders in Emergency Medical Services (EMS) regularly respond to 9-1-1 calls for low acuity patients who do not require emergent medical care. To address increasing low acuity 9-1-1 call volumes in King County, local fire departments implemented a Mobile Integrated Healthcare (MIH) regional approach, whereby fire departments deploy multidisciplinary care teams to address patients' underlying needs and connect them to more appropriate resources outside of the emergency room. A subset of clients with behavioral health needs often requires more intensive services and care coordination to connect them with the necessary resources. In partnership with the EMS Division of Public Health - Seattle & King County, the Seattle Fire Department, Shoreline Fire Department, Bellevue Fire Department, South King Fire & Rescue, and Valley Regional Fire Authority piloted the use of Crisis Connections' single portal referral service, OneCall, to connect patients with behavioral health needs who do not require immediate medical attention to more appropriate resources. If behavioral health patients who called 9-1-1 met the criteria of being low-acuity, first responders could utilize OneCall to gather information on the patient and refer them to new or current mental health treatment.

This evaluation of the OneCall pilot assesses whether the program achieved its objectives, through the utilization of a mixed methods approach.

Background

The National Problem

The utilization of Emergency Medical Services (EMS) and Emergency Department (ED) services has consistently increased within the United States over the past twenty years, contributing to increasing healthcare costs and expenditure, while also impacting the quality of patient care.[1] With the rise in utilization of EMS and ED services, 13 to 32% of EMS-related transports are considered medically unnecessary because they involve low-acuity patients with conditions that can be resolved outside of ED visits.[1] In fact, transport to unnecessary emergency department services alone accounts for anywhere between $583,050 and $1,435,200 of healthcare costs within jurisdictions of the United States that handle a minimum of 10,000 calls annually, contributing to overcrowded emergency departments, and a potential decline in quality of care.[1] Delays in EMS services or response time can also occur when first responders are tasked with responding to medically unnecessary calls.[1] Therefore, EMS agencies need to have the ability to connect patients to appropriate alternative services efficiently to enable a quick return to service and improve their availability for true emergencies.

To address unnecessary emergency department use, patient populations who frequently utilize ED services are of great interest. Patients who make four or more visits to the ED annually are considered frequent users of ED services.[2] Mental health, psychiatric disorders, and other related illnesses are predictors for patients who are high users of ED services.[3] ED users with a mental illness are 12 times more likely to utilize ED services at higher rates than those without a mental illness.[3] In fact, 62% to 77% of all patients who frequently use ED services have some form of mental illness, with anxiety, depression, bipolar disorder, and panic attacks being the most

prevalent.[3] Of the ED users living with a mental illness, 23% had four or more visits to an ED seeking services that directly related to their mental health issue.[3]

To divert low-acuity behavioral health patients from the ED, a mobile integrated healthcare approach can be utilized as an alternative to provide appropriate care. Mobile Integrated Healthcare (MIH) utilizes EMS agencies to deliver coordinated on-demand, needs-based care, or preventative services, in a mobile environment for both emergent and nonemergent cases, often avoiding the use of ED visits altogether.[4] The purpose of MIH programs is to restructure the framework of the United States healthcare system and provide out-of-hospital care to connect patients to the services they need to reduce re-hospitalization rates and promote cost-saving interventions.[5] MIH programs can serve population-specific needs, such as patients with mental illness, by diverting them to appropriate social services and health care providers to evade barriers to accessibility and assist in patient navigation.[5] In addition to reducing ED visits and related healthcare costs, MIH programs utilize partnerships with local fire/EMS agencies, as well as other community partners, to create opportunities for collaboration that can ultimately improve patient-centered care and outcomes.[4]

The Regional Context

King County is the largest metropolitan county in Washington State, encompassing a total of 39 cities across 2,132 square miles of geographic region being occupied by over 2 million residents that are served by local EMS responders.[6] In a survey administered to King County residents, it was reported that 10.8% of the adult population in King County experience mental health issues.[7] Mental distress among Hispanic adults is 14.5%, which is significantly higher than the average in King County.[7] In addition, 13.4% of America Indians and Alaska Natives are living with frequent mental distress, along with 11.3% of White adults and 10.2% of Black adults.[7] King County also serves a growing homeless population, with an estimated 11,199 individuals experiencing homelessness at the start of 2019.[8] From 2019 to the beginning of 2020, the largest increase in health conditions for individuals experiencing homelessness pertained to psychiatric and emotional conditions, with depression and schizophrenia being the most prevalent.[8] Among individuals experiencing homelessness in King County, 54% report being affected by a psychiatric or emotional condition.[8]

The steady population growth within King County has also led to an increase in the number of 9-1-1 calls and emergency medical responses over the past decade.[6] In 2018, EMS agencies in King County responded to 268,481 calls with Basic Life Support (BLS)-only responses accounting for 81% (217,049) of total calls.[6] Further examination into the BLS-only responses shows that 8.6% or 16,786 calls were related to a behavioral or psychological need, and an additional 15,707 pertained to alcohol or drugs.[6]

The EMS system in King County is mostly fire-based, meaning that medical calls are responded to by the local fire department. To ensure that the appropriate care is provided, a tiered response mechanism is used with Basic Life Support (BLS) comprising the first tiered response, Advanced Life Support (ALS) response in tier two, and additional medical care or transport to healthcare facilities provided in tier three.[6] The goal of Medic One/EMS is to provide care related to the evaluation, treatment, stabilization, and, when deemed necessary, transport of the

patient.[9] Discrepancies arise when a patient is deemed to be low-acuity and their persistent medical needs are related to social or behavioral health factors; traditional EMS response is designed to manage acute, critical medical incidents, not illnesses pertaining to social injustices or time-intensive care.[9] Therefore, diverting low-acuity, behavioral health patients from EMS to more appropriate services is essential to increase system efficiencies, establish appropriate patient care using existing healthcare infrastructure to stabilize patients, and reduce the number of low-acuity calls made to EMS.

Across King County, fire departments respond to high 9-1-1 call volumes from diverse patient populations that require care but may not necessarily benefit from the traditional EMS response.[10] To address the needs of low-acuity 9-1-1 callers, fire departments in King County have implemented an alternative service known as MIH, that connects patients to appropriate resources and social services.[10] Through MIH programs, EMS personnel frequently encounter patients who require complex mental health management, requiring extensive patient care and guidance to best identify their immediate needs and refer the patients to the necessary services.[10] MIH programs are typically staffed by firefighter/Emergency Medical Technicians (EMTs) who first screen patients for physical illness and social workers and case managers who have considerable behavioral health expertise. All fire departments that partnered on the OneCall pilot operate a MIH program that serves patients experiencing mental health crises across various jurisdictions within King County.

The OneCall Pilot

Goal of the Pilot: To respond to the high 9-1-1 call volumes in King County and to better serve vulnerable populations experiencing a mental illness, the Emergency Medical Services Division of Public Health - Seattle & King County, OneCall/Crisis Connections, Seattle FD, Shoreline FD, South King Fire & Rescue, and Valley Regional Fire Authority, with the addition of Bellevue FD in January of 2021, partnered in developing a pilot project with the goal of connecting low acuity behavioral health patients to appropriate resources and social services. A referral pathway was developed to create a new linkage between EMS and Crisis Connections' single portal referral service, OneCall, to better connect patients with behavioral health needs but no need for further medical attention, to more appropriate resources. This single portal referral service enabled access to a database of available health and human services information within the state encompassing more than 5,000 services across 1,500 agencies.[11] OneCall was designed for direct access by first responders and offered the following services:

- **Provide client information (Extended Client Lookup System**): OneCall could provide relevant, necessary information to assist a person currently in crisis. This might include current and past mental health treatment, psychiatric hospitalizations, how engaged a person is with their treatment providers, and other engagements with the public mental health system (Medicaid-only).
- **Problem-solving (Referral guidance):** OneCalls' Master's level mental health professionals could assist in providing guidance or suggestions for next steps regarding care pathways or service options.
- **Referral to current mental health treatment:** OneCall could provide information and direct linkage to a patient's current care team if the patient was enrolled in active case management in the public mental health system. This might

include providing the case manager and/or mental health agency phone number to the first responder, and linkage to after-hours programs.

- **Referral to new mental health treatment (Next Day Appointments):** If the patient was not already established or enrolled in public mental health services, OneCall could assist in scheduling next-day or emergency appointments, and could help enroll the patient in mental health services.

Pilot Design: The pilot user group consisted of select MIH programs in King County. The process can be accessed after an individual calls 9-1-1 for assistance. If MIH is requested to care for the patient during or after the 9-1-1 incident, MIH first responders assess the situation to determine whether a patient classifies as low-acuity. The criteria for referral through OneCall included any low-acuity incident including anyone experiencing a behavioral health crisis, homelessness, or a situation due to social determinants of health within King County. Calling OneCall links the EMS first responder to a trained mental health professional at Crisis Connections who can provide patient information, problem-solving, referral to current treatment, and/or referral to new treatment. Through this partnership with OneCall and Crisis Connections, EMS responders can ideally refer the patient to more appropriate social services that can establish a connection for further evaluation and care coordination, ultimately decreasing client 9-1-1 calls.

OneCall Referral Pathway

The purpose of this paper is to describe the methods and outcomes of the program evaluation. Results from this program evaluation will aid future pilots and inform the future scope and scale of OneCall by identifying the strengths and weaknesses of the program.

Methods

The mixed methods evaluation of the OneCall pilot was informed by program advisors and stakeholders and included both quantitative and qualitative data collection and analysis. Quantitative information was collected by Crisis Connections and summarized on an aggregate level. Additionally, client-level information was extracted by evaluating clients' EMS use three months before and after OneCall was accessed, focusing specifically on BLS-level responses to determine if changes in the number of incidents and ED transports occurred. OneCall clients were linked to EMS records between January 2019-May 2021 using a combination of first and last name, age, and date of birth. The three-month timeframe was selected due to the short-term nature of the intervention, which typically entailed a single point-in-time phone call during

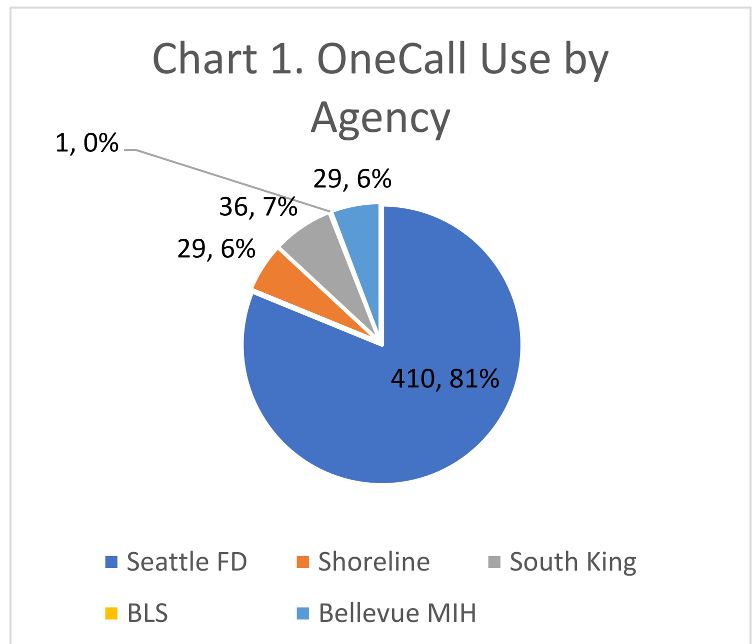
which additional support was provided by Crisis Connections to EMS first responders to help better serve their clients during or soon after the 9-1-1 incident.

Qualitative data was collected through 9 interviews that took place over Zoom, and 2 completed surveys with a total of 11 key project partners involved in planning and executing the OneCall pilot. Project partners included policy and leadership staff from the EMS Division and other King County agencies, as well as MIH direct service providers from partnered fire departments, MIH supervisory staff, and representatives from Crisis Connections. Program objectives informed the development of the interview questions and survey. The qualitative data was aggregated, de-identified and evaluated for major themes pertaining to program strengths, perceived challenges, lessons learned, and recommendations for the future of the OneCall program.

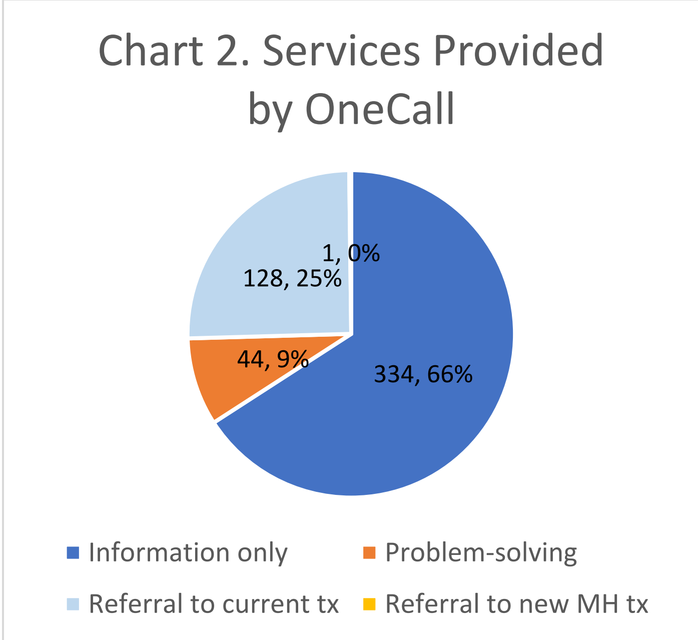
Evaluation Findings & Discussion

Quantitative Data Results

During the 18-month pilot timeframe, **a total of 505 calls were made to OneCall by partnered EMS agencies for an average of 28 calls per month**. OneCall use varied by MIH program with Seattle responsbile for 410 (81%) of the total calls, followed by South King with 36 (7%) calls, and Shoreline and Bellevue with 29 (6%) calls to OneCall (Chart 1). The pilot attempted to expand OneCall to BLS within Valley Regional Fire Authority and South King Fire and Rescue, and had little success (1 call). This suggests OneCall has more utility in certain geographies of King County, particulary among those that see a higher prevalence of patients with behavioral health needs.

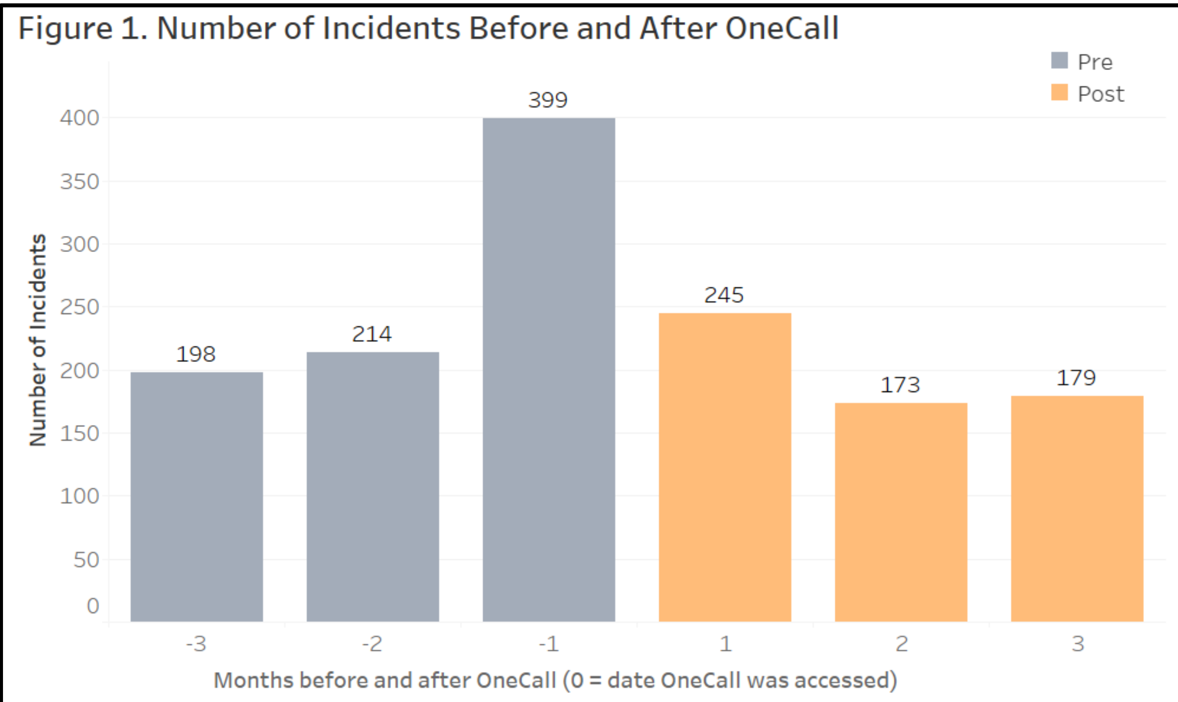


Of the services provided by OneCall to EMS MIH responders, **patient information and referral to current treatment (i.e. care team contact) comprised 91% of all services provided**. Problem-solving services were provided 44 (6%) times and referral to new mental health treatment only occurred once (Chart 2). This data suggests that OneCall's access to patient information was particularly useful to MIH providers, and OneCall was best equipped to serve patients who were already in the database because they were current users of public mental health services. Patients not yet enrolled in mental health services may have been more difficult to connect to new services because OneCall could not access information pertaining to these patients through their database.

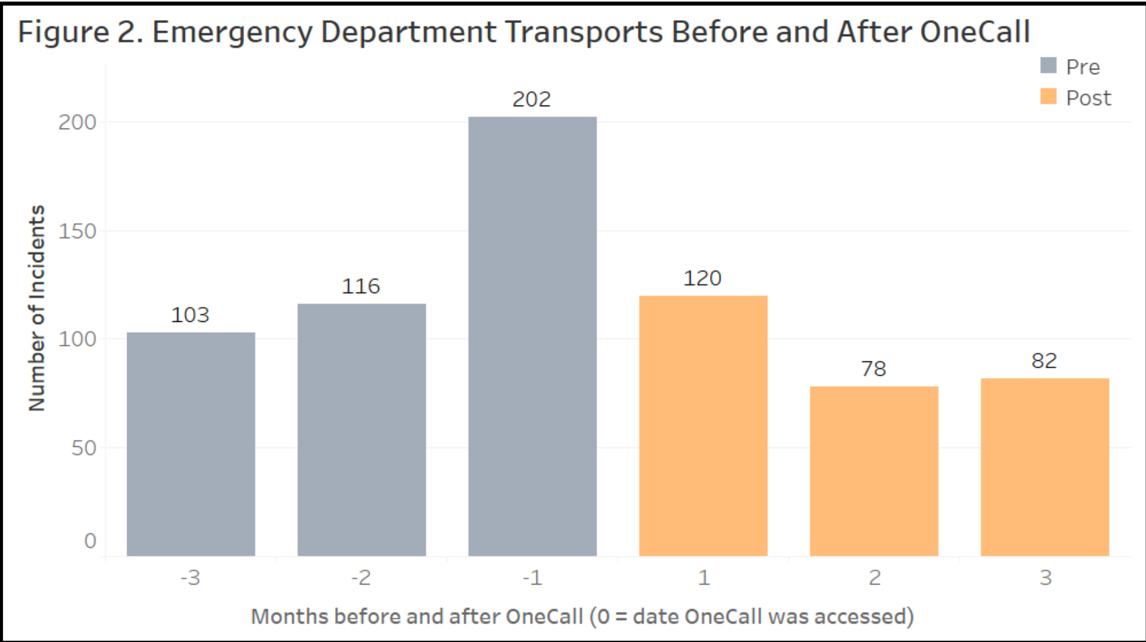


During the 18-month pilot timeframe, OneCall was accessed for 470 unique clients between October 2019-April 2021, and 413 clients were linked to EMS records. After excluding clients for whom police departments and shelters accessed OneCall (n = 31), who had OneCall accessed less than three months prior to May 2021 (n = 60), and who only had EMS incidents requiring ALS responses (n = 7), a total of 315 clients were included in the analysis. Of the 315 clients assessed, a majority were male (61.9%), and the average age at time of OneCall was 48.8 years.

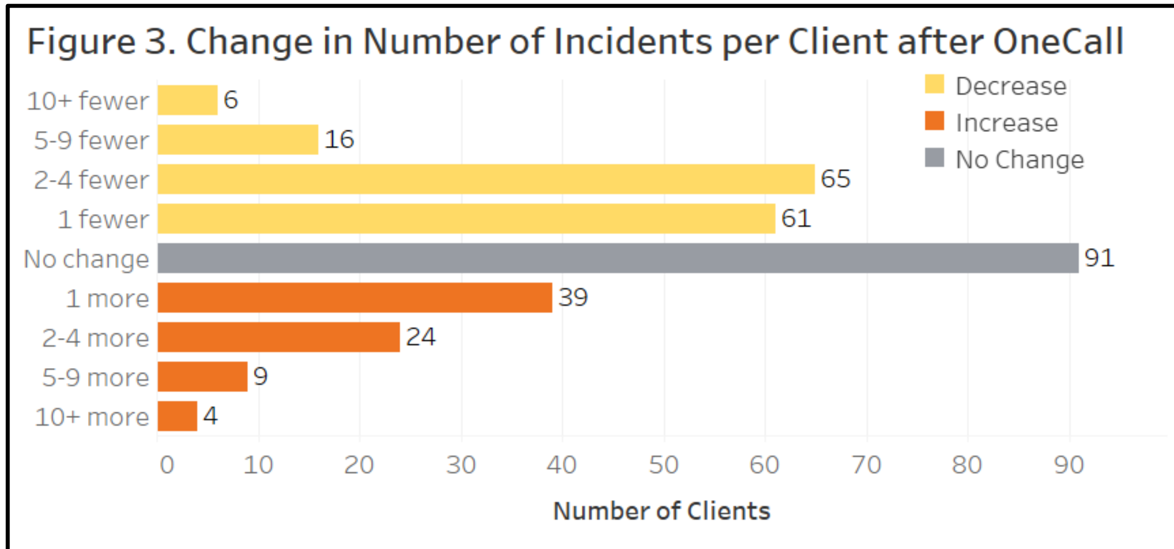
In the three months after OneCall, clients' EMS incidents decreased by 26.4%, from 811 incidents to 597 incidents (Figure 1). The highest number of incidents occurred in the one month prior to OneCall (n = 399) and decreased by 38.6% in the one month after the implementation of OneCall. Types of responses that saw the largest decrease following OneCall included Alcohol/Drug (47.6% decrease), Other Medical (29.5% decrease), Trauma (28.4% decrease), Behavioral/Psychological (25.4% decrease), and No Injury or Illness (24.0% decrease). This steady decrease in EMS incidents suggests that OneCall can help MIH programs prevent overutilization of emergency department resources and unnecessary 9-1-1 calls within King County through diversion to other points of care.

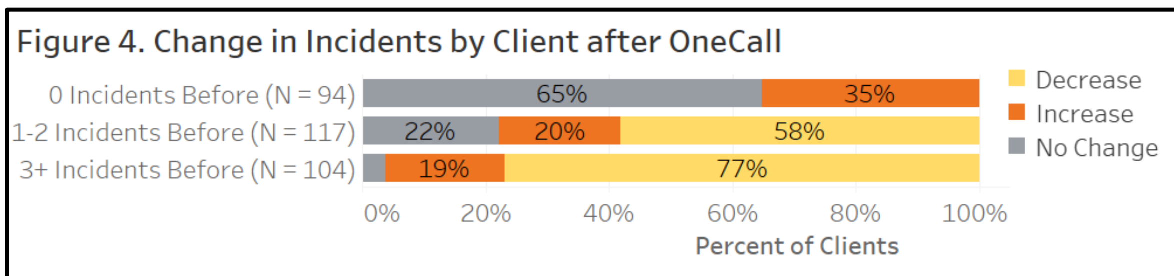


Among those who were transported, **the number of transports to Emergency Departments (EDs), both to freestanding and hospital EDs, decreased by 34.2%**, from 421 incidents transported to EDs before OneCall to 277 incidents after (Figure 2). Similarly, the highest number of ED transports occurred in the one month prior to OneCall (n = 202) and decreased by 40.6 % in the one month after OneCall. Most transports were BLS level, suggesting that OneCall was successful in reaching low-acuity patients and helped divert these patients away from unnecessary ED visits.



Nearly half of clients (148/315, 47%) had a decrease in EMS incidents after OneCall, while 76 (24.1%) had an increase in incidents, and 91 (28.9%) had no change (Figure 3). Change in EMS incidents varied by pre-OneCall EMS use, and clients with greater use experienced the largest reduction (Figure 4). Among the 104 clients with the highest EMS use (3+ incidents before OneCall), 77.0% had a decrease in incidents after OneCall, compared to 58.0% among lower utilizers (1-2 incidents before OneCall). Therefore, this data suggests that OneCall helped divert low-acuity patients to more appropriate behavioral health resources or social services to manage their care.





Among clients for whom OneCall was used, EMS incidents and ED transports decreased in the three months after OneCall, with nearly half of clients experiencing a reduction, suggesting that the program contributed to the successful diversion of unnecessary 9-1-1 and EMS incidents. While this evaluation could not determine whether there was a causal relationship between the OneCall intervention and change in EMS use (e.g., if the reduction in EMS use was due to the MIH intervention, OneCall, a combination of both, or other confounding factors), the project stakeholders validated that the OneCall program aided their ability to divert patients with non-emergent issues to more appropriate crisis services and enabled better patient-centered care. The fact that alcohol/drug, trauma, other medical, and no injury/illness calls all saw a decrease in incidents during the OneCall evaluation timeframe demonstrates the complex

needs of patients with behavioral health issues and in what scenarios MIH and OneCall may be most effective.

Qualitative Data: Findings from Interviews and Data Surveys

The 11 project partners who provided their feedback on the pilot project reported their perceived strengths, barriers, lessons learned, and recommendations for next steps based on their experiences.

The Major Strengths Identified by Project Partners Included:

Ability to gather and share patient information efficiently

All respondents reported satisfaction when utilizing OneCall to gather and share patient information in a timely manner. Respondents were able to obtain sufficient patient background history while en route to a call or while actively responding to the on-site incident. The information gathered helped inform EMS responders on the patient's previous detainments, hospitalizations, or current case managers prior to engaging the patient. Respondents stated that having direct access to this information streamlined the process of information gathering and improved their ability to serve their patient because having a direct linkage to available resources and services broadened their response options for patients.

User-friendly service that was easy to integrate into daily workflows

Respondents reported that OneCall was easy to navigate for EMS responders and that the interface was user-friendly, which improved user satisfaction. Having a single call-line referral service enabled shorter call wait times and minimized the number of calls that had to be redirected. Most respondents agreed that this direct line of service was time saving in the field and promoted better patient care. With OneCall being a single portal system and having the ability to connect EMS responders to Crisis Connections quickly, respondents reported that the service was easy to integrate into their daily workflows and did not detract from their additional responsibilities.

Increased care coordination through partnerships & existing resources

Most respondents stated that care coordination improved because of using OneCall and the partnerships that were formed with other EMS departments and agencies were strengthened because of this program. Some respondents reported successfully interacting with patients' case managers, a feat that they would have previously been unable to achieve on-site prior to the implementation of OneCall. Having access to existing patient case managers throughout the referral process added a benefit to the information sharing service. Improving their ability to coordinate care resulted in the diversion to more appropriate services and improved patient care.

Most respondents reported that the improvement in care coordination is a step towards a more systems-wide approach to problem-solving and fostering collaboration between EMS and crisis services for additional long-term, patient-centered benefit.

Table 1. User Success Stories
#1 *"We called OneCall on a client who had previous interactions with Sound [Mental Health]…but we didn't know anything about his case manager. He was vulnerable and living in his van…We were able to call OneCall and get all his case managers' information…and we were able to call the after-hours line at Sound and get him connected there. It was really nice to be able to have that information and say oh I see this person hasn't been connected, but he had one or two recent hospitalizations, so we were able to determine his baseline…More pure coordination, I think has been the success for us."*
#2 *"I called OneCall and spoke with [Crisis Connections] about a person with mental health issues in our city that relies on the 9-1-1 system for everything, creating unnecessary calls. Not only was [Crisis Connections] able to provide me with information about the patient, but we brainstormed ways to help her long term. [Crisis Connections] ultimately was able to point me to the care team and provide me with their phone number for contact."*

The Major Barriers Identified by Project Partners Included:

Lack of initial clarity in program capabilities

Most respondents acknowledged that there were initial misconceptions surrounding the services that OneCall would be capable of providing versus what the program actually provided during its implementation stages. A common misconception that was noted by the respondents was the lack of information regarding the availability of shelter beds. Some respondents noted that the lack of initial clarity pertaining to program capabilities was a potential predictor of underutilization of OneCall and its services for certain EMS first responders. Limitations in the ability to consistently schedule Next Day Appointments (NDAs) was another point of contention identified by respondents as a service that did not meet the initial expectations of the project partners.

Missed patient populations

Some respondents voiced concern that the program did not adequately address the needs of certain patient demographics. For example, respondents noted that the program was limited to providing information about Medicaid patients, and therefore, had limited utility to EMS agencies in communities with primarily non-Medicaid clients, which respondents felt resulted in missed patient populations that could also benefit from OneCall services. Respondents in some geographic regions in King County mentioned that, overall, they typically encountered fewer

behavioral health patients compared to other patient populations so the need for OneCall was not as prevalent.

Limited in-the-moment solutions

Some respondents reported that the OneCall program did not significantly improve in-the-moment decision-making processes and that the information provided to them did not lead to solutions that resulted in immediate action. This coincides with respondents stating that the Next Day Appointments (NDAs) and same day appointments did not function as well as they had hoped. Respondents reported that, while the information sharing was helpful, the other services (problem-solving, and referral to new mental health treatment) were not perceived as being as useful and were therefore underutilized. Respondents noted that OneCall was missing a tangible component, meaning that it lacked the ability to directly "handoff" the patient to crisis services on scene.

Challenges in dataset integration

Respondents reported that the lack of integration between the OneCall service and additional system databases underlined the remaining gaps within the program. With limitations in available data, respondents reported difficulty obtaining patient information, particularly for patients that they have not previously interacted with. Lack of shelter bed availability was a notable barrier to adequately direct patients to proper housing services. However, most respondents also noted that the lack of dataset integration to additional crisis services may not directly be a shortcoming of the OneCall program itself, but rather a care management systems-level issue.

The Key Takeaways/Lessons Learned Identified by Project Partners Included:

Tailoring OneCall to meet the needs of different first responder sectors

There was a mixed response by project partners as to how OneCall impacted their organization, with some respondents stating that OneCall had a significant impact and others who reported that the program impact was minimal. Some respondents at the policy level felt that tailoring the program to meet more universal needs can help it to reach a broader population, serve more EMS agencies, and increase the utilization of the program to make it more financially sustainable. Other respondents felt that OneCall should be tailored to meet the needs of agencies who encounter behavioral health patients more regularly and who lack behavioral health expertise. To that end, the communities with the greatest need would get the most tailored support from the program. Some MIH providers also felt they had comparable expertise to what the mental health experts at OneCall were offering, therefore, their need had already been met. While project partners did not find the program to be duplicative of other crisis services, the extent to which it

was complementary was dependent on the needs of each EMS agency. All respondents agreed that OneCall could benefit police agencies as well, so the program must be easily adaptable to meet the different needs of each organization and complement existing expertise and resources.

Need to expand community partnerships and system-wide dataset integration

In light of Crisis Connections' plans to expand the scope and scale of the OneCall program to additional first responders, respondents highlighted the need to expand community partnerships and system-wide data integration. Respondents reported that the program was better equipped to serve only a select population of patients, while patients with non-Medicaid health insurance and those who had not yet been enrolled in public mental health services were more difficult to divert. Being able to access additional crisis services, like shelters, clinics, or hygiene centers through OneCall would provide more "in-the-moment" solutions that first responders could refer their patients to and could increase the utility of these services. Respondents noted that implementing more "on-the-ground" solutions can enhance care coordination and expand community partnerships to have a positive impact on the patient. Not all limitations in dataset integration were the fault of the OneCall program itself. Respondents noted that the County lacks databases pertaining to additional crisis services altogether.

Need to improve outreach strategies that are tailored to distinct first responder groups

Respondents reported that first responder "buy-in" was an important takeaway to address to improve utilization of OneCall resources. With the initial lack of clarity regarding the program capabilities, some respondents felt as though the "buy-in" to utilize the program had decreased. To ensure that the expectations of the project partners continue to align with the capabilities of the OneCall program, many respondents reported the need to provide more frequent updates of data and changes that are being made to the program either via electronic message or newsletter. While this information was provided at the monthly stakeholder meetings, it did not always trickle down to the direct service providers. Providing consistent updates on the program ensures that program users are constantly informed of any alterations that could affect their patient care. Respondents also noted the importance of adding success stories or sharing positive outcomes of patient encounters using OneCall to improve first responder buy-in and to tie the program to some form of tangible evidence of success. While expanding the program, outreach strategies should be tailored to the distinct first responder sectors, and leverage proven and established training and communication pathways within each department.

By examining this feedback from the 18-month pilot period, we can gain an understanding of the main takeaways and remaining gaps identified when serving this target population through the OneCall service. The aforementioned information can be used to improve the OneCall program to better serve individuals with behavioral health needs and help divert low-acuity patients to appropriate resources outside of the Emergency Department.

Recommendations

The OneCall pilot provided a new linkage between King County EMS MIH programs and Crisis Connections to connect low-acuity, behavioral health patients to more appropriate resources using a single portal referral service. This evaluation assessed to what extent the pilot achieved its goal to better serve behavioral health patients by diverting low-acuity clients to more appropriate resources and services outside of the emergency department. By examining both quantitative and qualitative data, several key takeaways were identified in this evaluation that can inform recommendations for future projects that serve this target population within King County and to further tailor the OneCall program as it expands its scope and scale.

It would be beneficial to continue to test and evaluate the OneCall program with an expanded user group. Since this pilot study and evaluation was limited to select EMS Mobile Integrated Healthcare programs in King County, we recommend that Crisis Connections continue to test and evaluate the OneCall program among an expanded user group, including other first responder sectors and geographies of King County. This will help clarify the referents and patient groups this service can most benefit, and how OneCall can tailor its services to meet their distinct needs. Assessment efforts should also involve a resource scan to understand the current landscape of crisis response, and how OneCall can complement existing resources in a cost-effective manner, particularly as the behavioral health system evolves.

The results of this evaluation showed that a great deal of resources are needed to address the needs of this complex patient population and divert them to more appropriate services, which justifies the ongoing advocacy for comprehensive, community-based behavioral health resources. Establishing more comprehensive behavioral health resources can provide EMS responders with additional referral options to effectively divert low-acuity behavioral health patients to alternative points of care. Comprehensive resources can improve the information sharing process between OneCall and EMS responders to further expand patient background knowledge and case management capabilities. Providing more community-based services, like additional on-the ground crisis teams to assist in the on-scene response, can further improve the referral process and overall patient care. Since police departments and fire-based EMS differ in their approaches and expertise surrounding patient care, particularly related to clients experiencing a behavioral health crisis, it is important to recognize these discrepancies and review additional MIH or co-response models to fill remaining gaps that OneCall is not designed to fill, and to promote diversion solutions across agencies.

Similarly, there is a need for continued data integration to further enhance patient-centered care coordination. We recommend exploring opportunities to allow service providers, like MIH, direct access to patient information via the Extended Client Look-up System (ECLS), as that component of OneCall was noted as particularly beneficial among the pilot user group

and does not necessarily warrant staffing by OneCall mental health experts to deliver that information. In addition, continued advocacy for data integration can help resolve remaining gaps in the OneCall program as identified by respondents, specifically pertaining to shelter bed availability and non-Medicaid health insurance. Applying a broader systems-approach for data collection and data sharing can improve patient-centered care coordination to manage behavioral health issues through interdisciplinary teams for patients already in the system or for those who are new to the system.

Limitations

There are several limitations to this evaluation that deserve mention. OneCall clients were linked to EMS records using different iterations of first and last name, age, and date of birth. However, it is possible that there were some erroneous linkages for clients with common first and last names. Furthermore, some EMS incidents may also have been missed due to discrepancies in names between OneCall records and EMS records for the same person. EMS providers enter information that is provided to them at the time of the incident and may not always have the patient's legal name nor the correct spelling. We were unable to evaluate OneCall's impacts to clients' EMS use by race/ethnicity, due to missing data and inconsistent tracking of this data point within EMS databases. This evaluation cannot determine whether the change in EMS incidents post-OneCall was due to the OneCall intervention itself, MIH interventions more broadly, a combination of both, or other factors, due to lack of a control group. For example, behavioral health patients may naturally go through cycles of crisis with utilization patterns that resemble a sharp spike, followed by a sharp drop-off, making it difficult to determine a causal relationship between the OneCall intervention and changes in EMS utilization. In addition, the pilot timeframe overlapped with the COVID-19 pandemic, during which competing EMS priorities related to the pandemic may have created challenges to implementing this program. The pandemic may have also presented additional confounding factors affecting EMS call volumes and ability to connect patients to services.

Conclusion

Current and future program stakeholders should utilize this pilot evaluation to gain a better understanding of the program strengths and challenges that arose during this pilot timeframe as evidence to inform next steps and continue improvements towards serving low-acuity, behavioral health patients. This pilot project was an important step towards finding ways to divert low-acuity patients to appropriate health resources and minimize unnecessary Emergency Department services. To continue to better serve this patient population, further data integration between existing resources needs to be developed through community-based partnerships and implementation of programs, like OneCall, to an expanded user group of first responders that can benefit from the addition of behavioral health expertise within their agencies.

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Appendix A: Interview Questions for Project Partners N=9

1.) What is your role within your organization?

2.) What role did you have in the implementation or utilization process of the OneCall program?

3.) What is your overall impression of the OneCall program?
    a. From your perspective, what were the strengths of implementing OneCall in your organization? What worked well?
    b. What were the weaknesses or challenges of OneCall?
    c. Was the service easy or difficult to use and integrate into your workflows? Why or why not?
    d. Did you receive OneCall training prior to the program implementation? What were your perceptions of the trainings?

4.) Are there missed opportunities or remaining gaps you hoped OneCall would fill?
    a. How did you anticipate OneCall would be used, and was this achieved?

5.) Do you think OneCall is a valuable tool to improve EMS care to low-acuity BH patients? Why or why not?
    a. In what scenarios was using OneCall helpful? Can you provide a specific example?
    b. In what scenarios was OneCall NOT helpful?
    c. Does it compliment or duplicate other resources available? (e.g MCT)
    d. Do you feel as though your team was effective in utilizing OneCall? Why or Why not?

6.) Do you think the OneCall program resulted in new and sustained partnerships or collaborations between community services and EMS departments? Please elaborate.

7.) As the OneCall program looks to expand its scope and scale to include additional first responders, what are the key takeaways or lessons learned from the OneCall pilot study?

    a. What improvements would you suggest so that OneCall can be useful to other EMS first responders?
    b. Any suggested improvements to make it more useful to MIH or BLS specifically?
    c. Are there any specific organizations or first responders that you think would benefit from OneCall and should be included in expansion

8.) What are your hopes for the future of OneCall?
    a. Are there aspects of the program that should remain the same? Are there changes you would recommend?

Appendix B: Electronic Survey for Project Partners N=2

This survey will focus on your own experiences implementing or using OneCall. Your feedback on the successes, challenges, and opportunities for improvement of this pilot program will help inform next steps as OneCall expands. The information you provide will be included in the final evaluation report of the OneCall program and will be aggregated and de-identified to maintain confidentiality. Thank you for your participation.

1.) How satisfied or dissatisfied were you, overall, with the OneCall program and the services they provided?

- Very satisfied
- Satisfied
- Neither satisfied nor dissatisfied
- Dissatisfied
- Very dissatisfied

2.) The OneCall training prior to the program implementation was helpful and necessary

- Very satisfied
- Satisfied
- Neither satisfied nor dissatisfied
- Dissatisfied
- Very dissatisfied

3.) The OneCall program was easy to use and integrate into your workflows

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

4.) Myself and my team were effective in utilizing OneCall

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

5.) The OneCall program was successful in creating a new linkage between MIH responders and Crisis Connections to better serve patients with behavioral health needs

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

6.) OneCall is a valuable tool to improve EMS care to low-acuity BH patients

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

7.) From your perspective, what were the strengths of implementing OneCall in your organization? What worked well?

8.) What were the weaknesses or challenges of OneCall?

9.) Are there missed opportunities or remaining gaps you hoped OneCall would fill?

10.) In what scenarios was using OneCall helpful? (Provide an example, if applicable)

11.) In what scenarios was OneCall NOT help? (Provide an example, if applicable)

12.) Does the OneCall program compliment or duplicate other resources available?

13.) As the OneCall program looks to expand its scope and scale to include additional first responders, what are the key takeaways or lessons learned from the OneCall pilot study?

14.) In anticipation of OneCall expansion, what improvements would you suggest making it more useful to MIH or BLS specifically?

15.) What are your hopes for the future of OneCall?

16.) Please provide any additional feedback on the OneCall pilot

Appendix C: Key Qualitative Data Results from Project Partners N=11

Question 3: Overall Impression of OneCall

Response (Count)
Helpful for information sharing and/or gathering purposes (9)
Easy to utilize and navigate (4) - **Single call-line was beneficial (3)** - **Time saving in the field (2)** - **One-stop shop for providing resource options (1)**
Improved ability to serve BH patients by gathering background info on patient while responding to calls (5)
A valuable systems-wide approach to foster collaboration between EMS and Crisis Connections (3)
Provides necessary emotional support to first responders by diverting decision-making to BH experts (1)
Functionality of program dependent on patient demographics (2)

OneCall program did not align with original stakeholder perceptions (6)
- **Underutilization of available resources (3)**
- **Lack of immediate actionable/problem-solving solutions (3)**
  - ***Unable to provide NDA's (2)***
  - ***Only generic contact info for resources were provided (1)***

Lacking access to databases/information that could be of use (5) - **Shelter bed availability (3)**

Question 4: Missed Opportunities/Remaining Gaps

Response (Count)
Further integration needed between OneCall and available crisis services (7) - **Gaps in access to additional databases (3)** - **Inability to schedule Next Day Appointments (NDAs) (2)** - **Shelter bed availability (4)**
Lacking immediate & actionable support (5)
Underutilization of available resources (4) - **Need to improve outreach methods to increase awareness (2)** - **Time of day may affect utilization (2)**
Limited to Medicaid patients (2)
Unknown if missed opportunities are related to OneCall program itself or due to the lack of overall access to additional databases (3)

Question 5: Is OneCall a Valuable Tool to Improve EMS Care to Low-Acuity BH Patients?

Response (Count)
It is a helpful tool to improve care to low acuity behavioral health patients (7) - **Enables better system for case management care (5)** - **Provides new resources and training opportunities for EMS (1)**
Did not significantly improve EMS care (2) - **Has potential to improve care (2)** - **Patient demographics may affect program use (2)** - **Did not improve on-scene EMS care (1)**

Question 6: Did OneCall Result in New & Sustained Partnerships?

Response (Count)
More collaboration & coordination occurred between services/departments (5) - **Existing partnerships were strengthened (6)** - **Monthly meetings were beneficial in forming partnerships (2)**
Sustained partnerships are still to-be-determined (4) - **Dependent on funding & program longevity (2)**
Existing partnerships within departments were already sufficient (2)

Question 7: Key Takeaways or Lessons Learned?

Response (Count)
Reflect on additional MIH models or Co-response models when expanding to other EMS departments (i.e., Police) (3)
Tailor the program to effectively serve different patient demographics (4)
Mindful of call volume during expansion to ensure adequate assistance is provided to resolve issues quickly (3)
Continue outreach strategies during expansion to provide clarification on services that OneCall can provide (5) - **Ask for more continuous feedback & program updates (2)** - **Include success stories in training to increase buy-in from new EMS responders (2)**
Positive response to having a user-friendly program that can help streamline the process (2)

Question 8: Hopes for the Future of OneCall?

Response (Count)
Program funding continues (4)
Further integrate existing data sets into the OneCall program for use (6) - **Assist with establishing long-term care for patients (2)**

- **Expand connections to resources and additional crisis services (3)**
- **Partner with additional programs and expertise (1)**

Program becomes sustainable by adapting to the scope & scale of population being served (3)

- **Provide more immediate and accessible solutions (4)**
- **Streamline same day and next day appointments (2)**

Program helps to minimize ED visits and repeat calls to EMS (2)

- **Increase utilization of OneCall among all departments (2)**

Appendix D: Major Themes with Supporting Excerpts from Interviews

Themes for Program Successes

Ability to gather & share patient information efficiently	"It made it easy to find out if the patient was already connected with mental health services or not, so it was it was kind of a time saver in that regard. It cut down on the amount of research that we would have to do on our cases." "It's been a super streamlined process."
User-friendly service that is easy to integrate into daily workflows	"It's really easy for firefighters to use. Sometimes firefighters find our social service system navigation really daunting and OneCall is just simple, easy, and pretty straightforward."
Increased care coordination through partnerships & existing resources	"We realized we have a lot of clients that have case managers. Sometimes that's kind of an opener for us so we've developed a lot stronger partnerships with some of the case managers and been able to really coordinate and get people into services & follow up with people in the community."

Themes for Program Challenges

Lack of initial clarity in program capabilities	"In the very beginning, I think the expectations of what OneCall was supposed to do were kind of off. I think the people didn't understand what exists and what doesn't exist."
Missed patient populations	"OneCall is only for Medicaid patients or patients connected to Medicaid so if they have private insurance or anything like that, then they wouldn't be in the system."
Limited in-the-moment solutions	"If we had a patient out in the field that we needed to go somewhere right away and we didn't want to send them to the hospital, it would have been good to know what we could do in the

	moment to send that patient to a safe place and OneCall was never able really to achieve that.”
Challenges in dataset integration	“Recognizing the limitations of a system that does not have real time data and that does not have access to some of the databases that would be super helpful when trying to figure out what to do with an individual in the moment.”

Themes for Key Takeaways/Lessons Learned

Tailoring program to meet the needs of different first responder sectors	“I feel like we [MIH] have a pretty good robust program that can get the information that OneCall provides already. So, I think for One Call thinking how it would be beneficial for police officers or firefighters in the field and how to make that work for them."
Need to expand community partnerships & system-wide data integration	“We need to continue to build out the resources and services and connections that they already have.” “We would love to have more options, whether it’s shelters or hygiene centers or clinics or anything like that, where we can be sure there’s the availability to take care of their patients.”
Need to improve outreach strategies that are tailored to distinct first responder groups	“I think a little more than nuanced feedback is good because, especially within first responders' programs, it really helps to be able to say like here are times when information really has changed. Sort of more, in depth success stories or outcomes are always very helpful.”