

Overview – Madison Police Department Mental Health Unit Program Evaluation

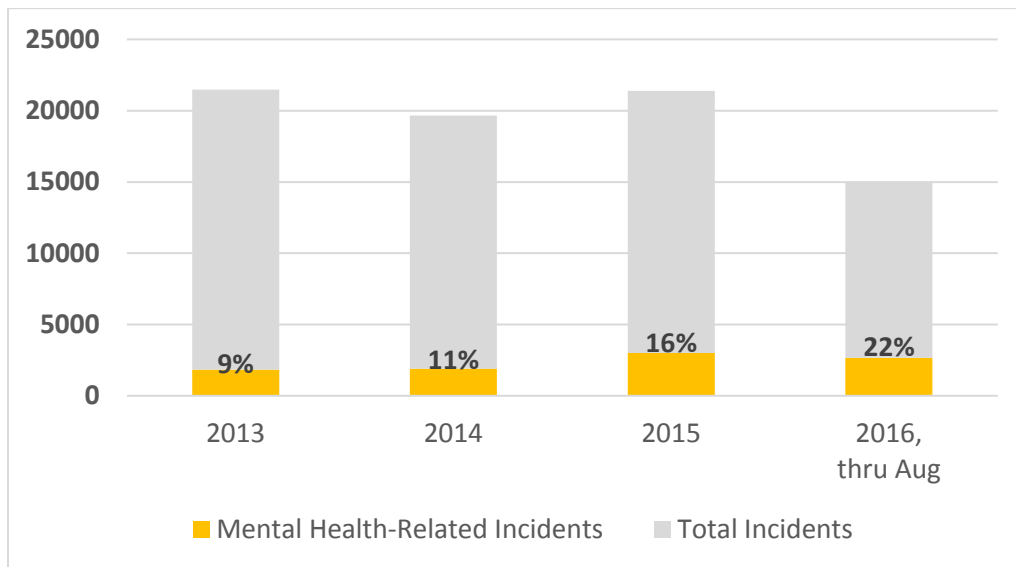
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Main findings:

1. Between January 2013 and August 2016, mental health-related incidents not only increased, but doubled as a proportion of all incident reports.

During this period, Madison Police Department generated a total of **9,401** reports identified as related to mental health, involving **22,861** total Subjects and **14,769** unique individuals.

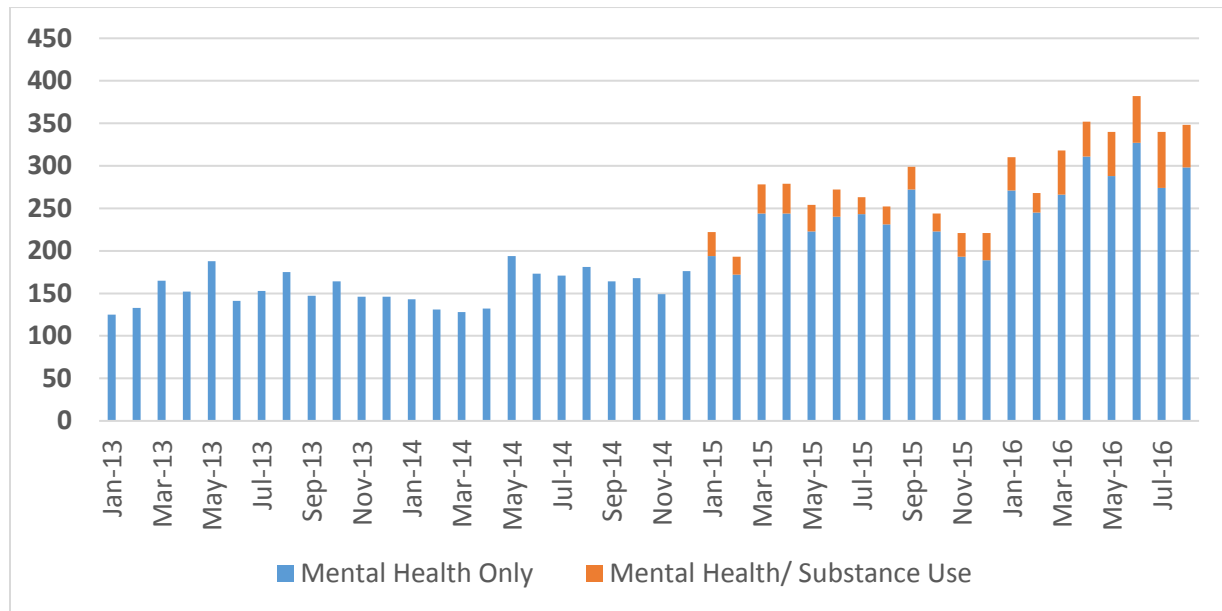
Chart 1: Annual Number of Mental Health-Related and Overall Incident Reports



2. Mental-health related incidents with co-occurring substance use represent a small but growing share of all mental health incidents.

While the majority (**92.5%**) of reports were classified as mental health only, the average monthly proportion of reports with co-occurring mental health/ substance use has increased from **13%** in 2015 to **17%** in 2016. (See Chart 2 on next page).

Chart 2: Monthly Mental Health-Related Incident Reports, by Type



3. A small number of Subjects appeared in a disproportionate number of mental health incident reports.

Although most Subjects (78%) appeared in only report, a small number appeared in multiple reports: nearly 3% of individuals generating reports comprise 17% of the total Subjects in mental health reports.

4. More than half (57%) of all Subjects in mental health-related reports were identified as “Contacts,” making it difficult to identify the “primary” individual generating the report.

5. The MHO unit provided an increasing number of services, totaling nearly 3,500 services to date.

Between February 2015 and August 2016, the Mental Health unit provided a total of 3,479 different services – 2,951 by Mental Health Officers (MHO) and 528 by the Journey Law Enforcement Liaison (LEL). The monthly average of services provided by MHOs increased from 126 in 2015 to 196 in 2016.

6. The most common services provided by the MHO team – 42% among MHOs and 78% by the LEL – were “Follow-ups”.

7. MHO’s also provided many reactive, “community investment” (e.g. meetings or trainings), and “problem solving” services, as well.

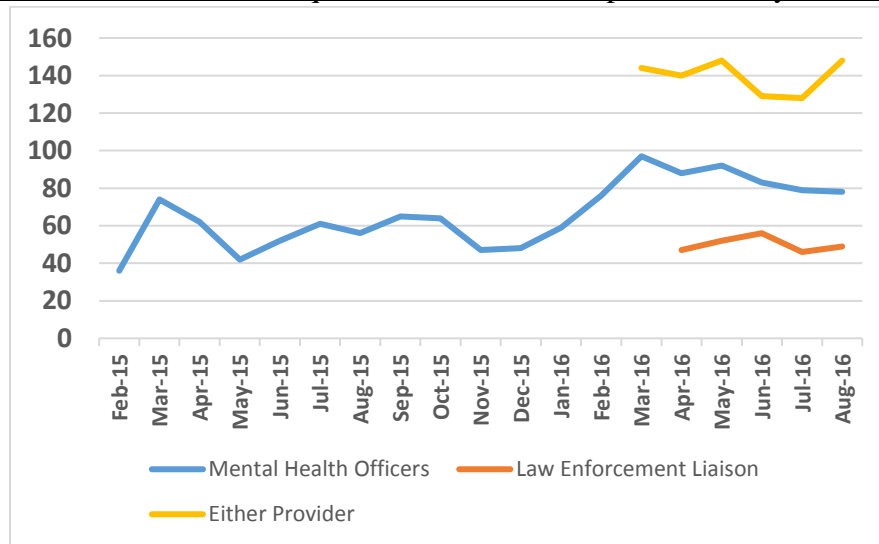
Table 1: Five Most Common Services Provided, by Mental Health Officer

Rank of Service Provided	Central: AJN (n = 737)	North: CB (n = 234)	East: RLS (n = 561)	South: JBH (n = 603)	West: ECW (n = 816)
1	Follow-Up (36%)	Follow-Up (24%)	Follow-Up (40%)	Follow-Up (52%)	Follow-Up (46%)
2	Field Response (20%)	Field Response (15%)	Field Response (13%)	Community Meetings (11%)	Assist Patrol (14%)
3	Community Meetings (12%)	Training (14%)	Safety Plan (10%)	Field Response (9%)	Field Response (13%)
4	Assist Patrol (6%)	Other Problem Solving (13%)	Other Problem Solving (9%)	Training (8%)	Safety Plan (6%)
5	Safety Plan (5%)	Community Meetings (9%)	Community Meetings (8%)	Other Problem Solving (6%)	Other Problem Solving (5%)

8. The Mental Health Unit provided services to over 900 unique individuals, who generated a total of 3,276 mental health incident reports.

The Mental Health Officers provided services to **798** unique individuals, while the Journey Law Enforcement Liaison provided services to **274** unique individuals, of whom **138** received services from both providers.

Chart 3: Number of Unique Individuals Served per Month, by Provider



9. Most individuals obtaining services received at least one “follow-up”. (See Tables 2 and 3 on next page).

Table 2: Three most common services provided to unique individuals by Mental Health Officers

MHO Service Type	% of unique individuals ever receiving service (n = 798)
Follow-up	60%
Field Response	35%
Safety Plan	15%

Note: Categories do not total 100% because individuals can receive multiple service types.

Table 3: Three most common services provided to unique individuals by Journey Liaison

LEL Service Type	% of unique individuals ever receiving service (n = 274)
Follow-up	83%
Joint Outreach	18%
Field Response	11%

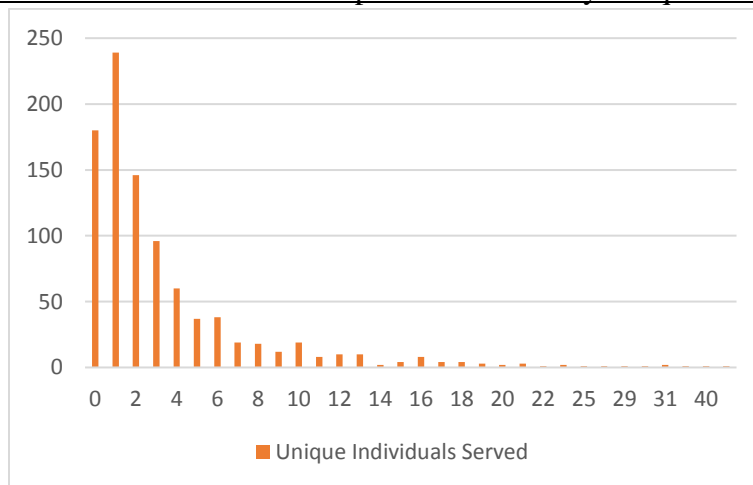
10. Individuals receiving services from both MHOs and the LEL received at least three times as many services as those receiving services from the MHO or LEL only.

Table 4: Number of services provided to unique individuals, by provider:

Service Provider	Services Provided by:			Overall (n = 934)
	Mental Health Officers Only (n = 660)	Law Enforcement Liaison only (n = 136)	Both providers (n = 138)	
Average Number of Services Received	2.2	1.2	6.7	2.7

11. Nearly one-fifth (19%) of all consumers served were responsible for generating over three-fifths (62%) of all mental health incident reports among individuals served.

Chart 4: Total Mental Health Incident Reports Generated by Unique Individuals Served



12. Services were provided to individuals generating the highest number of reports.

Between January 2013 and January 2015 (prior to program implementation), the average number of reports generated by individuals who later received services (**0.83**) was statistically significantly higher (p-value <0.001) than those who did not (**0.63**).

13. However, more than half of individuals served (56%) generated one or fewer mental health incident reports before receiving services.

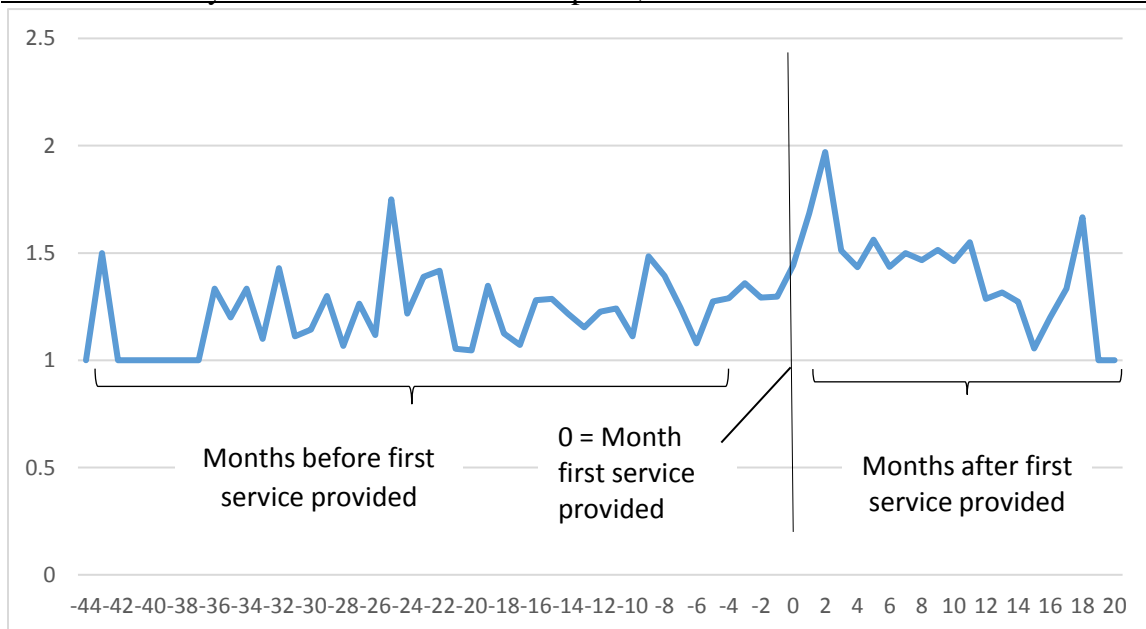
14. The MHO unit provided services within two weeks of the initial mental health report and witnessed a subsequent incident within approximately one month of service provision.

The median number (meaning half of consumers are above and below this figure, respectively) of days between the first incident report and service provision was **13.5**; the median length of service provision was **42** days; and that between the last service provided and any subsequent report was **37** days.

15. The MHO program conducted 66 diversions from jail, involving 58 unique individuals.

16. The number of mental health reports generated typically increased just before and during service provision, before decreasing.

Chart 5: Monthly Mental Health Incident Reports, Before and After First Service Provided



17. Over three-quarters (80%) of individuals served generated no additional incident reports after receiving services, as of August 2016.

Table 5: Distribution of Mental Health Incident Reports,

	Number of Reports Generated by Unique Individuals Served		
	Before first service	During services	After services
0	24%	77%	80%
1	33%	8%	13%
>1	43%	15%	7%
	100%	100%	100%

18. The number of reports an individual generates after receiving MHO services is consistently statistically significantly lower than the number generated before service receipt.

Table 6: Total Reports Generated Before, During, and After Service Receipt

Analysis	Total Number of Reports		
	Before	During	After
1. From data start: Jan 1, 2013 (n = 934)	2.2	0.94	0.37***
2. From MHO program: Feb 1, 2015 (n = 934)	1.4	0.94	0.37***
3. From same length of time before/ after first service (n = 934)	1.3	0.94	0.37***
4. From date of first mental health report (n = 713)	2.9	1.11	0.43***
5. Received any pro-active services (n = 643)	2.5	0.92	0.46***

One-tailed paired t-test of means before and after services: * p-value <0.05; ** p-value <0.01; *** p-value<0.001

19. However, there is more mixed evidence of a decrease in the *rate* of mental health reports generated per month, before, during, and after service provision.

Table 7: Reports per Month Generated Before, During, and After Service Receipt

Analysis	Rate-Adjusted Number of Reports		
	Before	During	After
1. From data start: Jan 1, 2013 (n = 934)	0.06	0.53	0.07
2. From MHO program: Feb 1, 2015 (n = 934)	0.32	0.53	0.07***
3. From same length of time before/ after first service (n = 934)	0.55	0.53	0.07***
4. From date of first mental health report (n = 713)	3.68	0.65	0.09***
5. Received any pro-active services (n = 643)	0.07**	0.41	0.11

One-tailed paired t-test of means before and after services: * p-value <0.05; ** p-value <0.01; *** p-value<0.001

Recommendations for improving MHO data collection and program evaluation

MHO Spreadsheet

Recommendation	Justification	Implementation
1. Use a common unique identifier (e.g. Name, ID) to facilitate linkages across datasets	A common identifier can help link information on MHO service provision and mental health incidents maintained across multiple datasets.	Use same Names as recorded in LERMS – instead of, or in addition to, Case Numbers.
2. Distinguish between specific types of “Follow-up” services provided	Because follow-ups comprise the majority of services provided, identifying specific follow-up tasks can better illustrate the “value-added” of the program and help determine which services are most effective.	Provide several “Follow-up type” options in the spreadsheet, such as in the form of boxes to check or drop-down menus.
3. Clarify “Other Problem Solving” activities	Although “Other Problem Solving” represents one of the top-five categories of services provided by MHO’s, the current spreadsheet metric provides little additional detail.	Create several groups of “Other problem solving” tasks (e.g. CIT, community outreach).
4. Identify referral source	Identifying the referral source can provide information on how the program is functioning.	Record initial referral source using a drop down menu.
5. Leverage Excel functions to enhance consistency of MHO/LEL measures and minimize data entry burden	Using Excel’s built-in functions can help ensure accuracy of data entered.	Use drop-down menus for Call Types and other pre-defined categories. Use formulas for totals to decrease entry errors.

LERMS

Recommendation	Justification	Implementation
1. Identify “primary” or “focal” contact in mental health report – i.e. the individual who generated the incident	Because most Subjects in mental health-related reports are identified as “Contacts,” it is impossible to distinguish the individuals who are responsible for generating the reports from those who simply appear in reports – especially among those not receiving MHO services. With this information, additional statistical techniques can be used to compare outcomes between those receiving services and those who are not.	Create “Primary Contact” field as a “Subject Type” in mental health-related incident reports
2. Improve consistency of LERMS queries	There are currently slight discrepancies between the monthly LERMS mental health data generated for Captain Roman and for me. Although this discrepancy only amounts to approximately 50 cases per year, these numbers should be consistent no matter when or for whom the report is generated.	Create query for obtaining mental health incident report data with clearly defined parameters that is universally employed by all data users.

Conceptual Considerations for Subsequent MHO Program Evaluations

Analysis	Concept
1. Defining service provision	Should service provision be conceptualized as <i>any</i> services, the <i>total</i> number of services provided, or only <i>pro-active/ preventative</i> services?
2. Defining pro-active/ preventative activities	“Follow-up” services are currently identified as either “pro-active” or “reactive.” However, this distinction is ambiguous – i.e. a follow-up may occur in reaction to an earlier call for service but ultimately be used as a preventative strategy. Defining “pro-active” services would be especially useful, because these are specifically meant to prevent future mental health-related incidents and calls for service.
3. Measuring time between mental health incident reports and service provision	<u>Timing</u> : From which date should we measure time to service provision? From first post-MHO program report? Or from report immediately preceding service provision?
	<u>Service type</u> : Should time between incident and service provision be measured separately for pro-active (less time-sensitive) versus reactive (more time-sensitive) services?
4. Comparing incident report rate per month before and after service provision	<u>Case inclusion</u> : Include only consumers generating any reports? Those generating the most reports?
	<u>Service type</u> : Include only pro-active/ preventative services?
	<u>“Exposure” period</u> : From which date to construct incident report rate?
	<u>Service provision timing</u> : How to define timing of service receipt? From first service provided? From last service provided? Are MHO/ LEL services independent or considered part of a service package?
5. Maintaining institutional knowledge/ infrastructure of program evaluation	How best to store data and program evaluation products to facilitate subsequent evaluations?

Suggested Analyses for Subsequent MHO Program Evaluation – pending data availability

Analysis	Data Needed
1. Replicate current evaluation with updated data through first 2/ 2.5 years of program	MHO/ LERMS data through Feb. 1, 2017/ Aug. 1. 2017
2. Statistically compare number/ rate of reports generated by consumers after receiving different types of services	More detailed follow-up/ pro-active service categories
3. Statistically compare characteristics of, services provided, and outcomes among consumers by referral source	Identified referral source
4. Statistically predict service receipt based on individual characteristics	“Primary” contact identified in mental health-related incident reports
5. Statistically predict change in number of reports generated after service receipt	
6. Statistically compare number/ rate of mental health reports generated by individuals receiving and not receiving services, respectively – potentially matching on similar characteristics in case-control design	
7. Identify proportion of mental health-related calls for service that lead to incident reports	Mental health-related calls for service (implemented July 2016)
8. Statistically predict which individuals are most likely to generate reports based on calls for service	
9. Statistically compare number/ rate of mental health-related calls for service generated by individuals receiving/ not receiving services	