Northville Plymouth Fire Advisory Board Meeting Agenda

Monday, April 4, 2022 4:00 p.m.
Northville City Hall 215 W. Main St.

1. Roll Call: Chair Brian Turnbull, Vice Chair Tony Sebastian, Jim Rachwal, Paul Sincock, Pat Sullivan
2. Approval of Meeting Minutes for January 3, 2022
3. Fire Inspection Report
4. Training Report
5. Personnel Staffing Report
6. Run Volume Report
7. Review of Northville Station Response Times
8. Review of Plymouth Station Response Times
9. Review of Incident Maps
10. Other Business
    - Article – Home-visit programs save money, free ERs
    - Article – Leadership Lessons: Management Mayday
    - Article – Critical and underutilized: fir and police responders associated with higher cardiac arrest survival rates
11. Next Meeting Date
12. Adjournment

Northville Plymouth Fire Advisory Board

Meeting Minutes

Monday, January 3, 2022 4:00 p.m.

Plymouth City Hall

1. ROLL CALL

Present: Chair Brian Turnbull, Vice Chair Tony Sebastian, Member Jim Rachwal, Member Paul Sincock, Member Pat Sullivan

Others Present: Chief Matt Samhat, Plymouth Mayor Nick Moroz

2. APPROVAL OF MEETING MINUTES

Sincock made a motion, seconded by Sullivan, to approve the minutes of the November 1, 2021 meeting.

MOTION PASSED 5-0

3. FIRE INSPECTION REPORT

Samhat reported a total of 940 fire inspections had been completed in 2021: 59 in Northville and 881 in Plymouth. Of those, 478 were new inspections and 435 were re-inspections. Sincock asked whether it counts for one or two inspections if two personnel are present. Samhat replied it counts for one. Samhat said he was working on setting up a "company" level inspection program.

4. TRAINING REPORT

Samhat said department members attended a total of 241 training sessions for a total of 3,718 hours of scheduled department training, 1,504 hours in the field training officer program, 611 outside training hours, 156 USAR training hours and 166 hazmat training hours in 2021. He said e was working on a new "flex-schedule" training program.

5. PERSONNEL STAFFING REPORT

Samhat reported that there are currently 55 staff members, including 25 at station one, 29 at station two and one unassigned. He said he had conversations with several under performers who then left the department.

6. RUN VOLUME REPORT

Samhat reported that in 2021, there were 632 runs at station one and 1,044 at station two.

7. REVIEW OF NORTHVILLE STATION RESPONSE TIMES

The group reviewed Northville (station one) response times provided by Samhat. In 2021, the average call-to-arrival response time was 8:23.

8. REVIEW OF PLYMOUTH STATION RESPONSE TIMES

The group reviewed Plymouth (station two) response times. In 2021, the average call-to-arrival response time was 8:55.

9. YEARLY COMPARABLE

Samhat provided a document comparing runs and mutual aid services in 2021 to previous years.

10. FINANCIAL REPORT

Samhat reviewed the FY 2022 financial report through 11-30-2021.

10. OTHER BUSINESS THAT MAY COME BEFORE THE NORTHVILLE-PLYMOUTH FIRE ADVISORY BOARD

Moroz asked Samhat how he is dealing with the issue of low response rates. Samhat said he was talking to under-performers and that some of them had chosen to leave the department.

11. NEXT MEETING DATE

The next meeting will be on Monday, April 4, 2021 at 4:00 p.m. at Northville City Hall.

12. ADJOURNMENT

Sincock offered a motion, seconded by Sullivan, to adjourn the meeting.

MOTION PASSED 5-0

Respectfully submitted,

Paul J. Sincock, Recording Secretary

Northville City Fire Department

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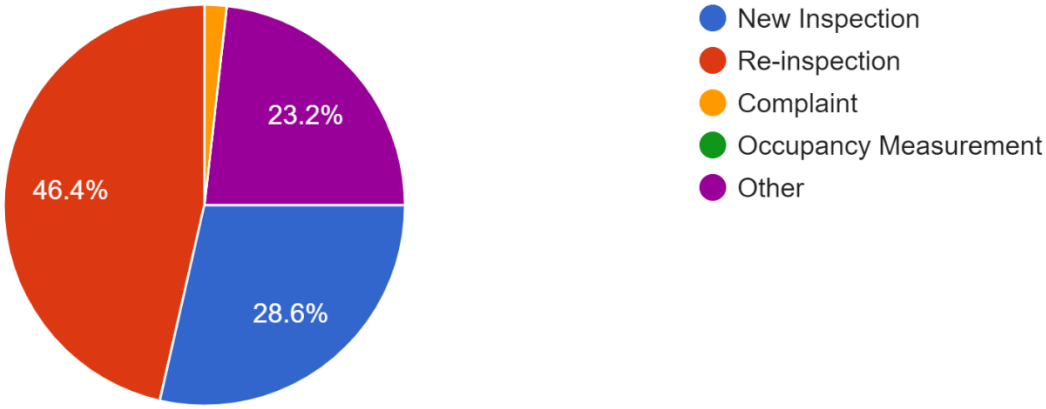
Fire Inspection Report



2022 Inspections				
Inspector	**Jan**	**Feb**	**Mar**	**Q 1**
Prieur	8	7	8	23
O'Donnell	0	11	10	21
M. Davison	0	0	0	0
Lt Rice	63	26	23	112
Perchman	8	0	0	8
Total Inspections	79	44	41	164
Inspections By City				
Northville	8	11	10	29
Plymouth	71	33	34	138
Inspection Types				
New Inspections	3	3	3	9
Re-Inspections	57	57	57	171

Northville City Fire Department

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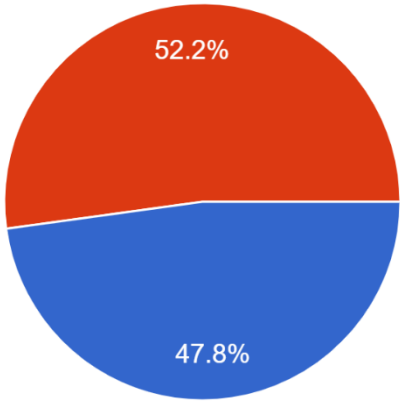
Training Report 2022

Total Training Sessions:
46



Individual/Outside Training: 52.2%

Scheduled Dept Training: 47.8%

2022	Jan	Feb	Mar	Q 1
Thurs Training Hrs	270	265	94	629
Sessions	8	8	7	23
Individual Training Hrs	45	9	34	88
Sessions	4	1	10	15
Outside Training Hrs	4	12	0	16
Sessions	1	1	3	5
USAR Training Hrs	16	16	16	48
Sessions	1	1	1	3
HazMat Training Hrs	14	9	0	23
Sessions	1	1	1	3

Northville City Fire Department

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Staffing 2022 – 1st Quarter

Total Staffing		
	2022	***2021***
FF/Paramedic	3	3
FF/Specialist	1	1
FF/EMT	29	28
FF/MFR	6	6
FF	10	11
Paramedic	1	2
EMT	3	3
Cadet	1	1
Total Personnel	54	55

Chief		
	2022	***2021***
FF/EMT	1	1
Total	1	1

Station 1		
	2022	***2021***
FF/Paramedic	2	2
FF/Specialist	0	0
FF/EMT	11	12
FF/MFR	0	0
FF	6	5
Paramedic	1	2
EMT	3	3
Cadet	1	1
Total	24	25

Station 2		
	2022	***2021***
FF/Paramedic	1	1
FF/Specialist	1	1
FF/EMT	17	15
FF/MFR	6	6
FF	4	6
Paramedic	0	0
EMT	0	0
Cadet	0	0
Total	29	29

Northville City Fire Department

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Run Volume Comparison Report 2022 (1st Q)

Dept Totals	2022	% Change	2021	% Change	2020	% Change	2019
Medical	315	37.6%	229	-17.0%	276	-4.5%	289
Fire/Other	103	25.6%	82	-17.2%	99	-26.7%	135
Total Runs	*418*	*34.4%*	*311*	*-17.1%*	*375*	*-11.6%*	*424*
Percent Medical	75.4%	1.7%	73.6%	0.0%	73.6%	5.4%	68.2%
Percent Fire/Other	24.6%	-1.7%	26.4%	0.0%	26.4%	-5.4%	31.8%

St. 1	2022	% Change	2021	% Change	2020	% Change	2019
Medical	104	31.6%	79	-21.0%	100	-2.0%	102
Fire/Other	46	24.3%	37	-32.7%	55	-15.4%	65
Total Runs	*150*	*29.3%*	*116*	*-25.2%*	*155*	*-7.2%*	*167*
% Of Dept Total	*35.9%*	-1.4%	*37.3%*	-4.0%	*41.3%*	1.9%	*39.4%*
Percent Medical	69.3%	1.2%	68.1%	3.6%	64.5%	3.4%	61.1%
Percent Fire/Other	30.7%	-1.2%	31.9%	-3.6%	35.5%	-3.4%	38.9%

St. 2	2022	% Change	2021	% Change	2020	% Change	2019
Medical	211	40.7%	150	-14.8%	176	-5.9%	187
Fire/Other	57	26.7%	45	2.3%	44	-37.1%	70
Total Runs	*268*	*37.4%*	*195*	*-11.4%*	*220*	*-14.4%*	*257*
% Of Dept Total	*64.1%*	1.4%	*62.7%*	4.0%	*58.7%*	-1.9%	*60.6%*
Percent Medical	78.7%	1.8%	76.9%	-3.1%	80.0%	7.2%	72.8%
Percent Fire/Other	21.3%	-1.8%	23.1%	3.1%	20.0%	-7.2%	27.2%

Special Teams							
HazMat	0		0				
USAR	0		0				

Northville City Fire Department

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Run Volume Report 2022

2022	Jan	Feb	Mar	Q 1	Q1 %
St. 1					
Medical	36	27	41	104	69.3%
Fire/Other (Including MA)	7	23	16	46	30.7%
Station 2 Runs - Fire	3	4	9	16	
Generated In Error	2	1	0	3	
# Of Calls	43	50	57	150	
St. 2					
Medical	72	66	73	211	78.7%
Fire/Other (Including MA)	19	16	22	57	21.3%
Station 1 Runs - Fire	1	2	0	3	
Generated In Error	0	2	3	5	
# Of Calls	91	82	95	268	
HazMat				0	
USAR				0	
Dept Totals					
Medical	108	93	114	315	75.4%
Fire/Other	26	39	38	103	24.6%
Total	134	132	152	418	
St. 1 %	32.1%	37.9%	37.5%		35.9%
St. 2 %	67.9%	62.1%	62.5%		64.1%

Northville City Fire Department

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Times & Personnel 2022

2022	Jan	Feb	Mar	Q 1
St.1 - Avg Run Times (Metrics)	43	50	57	150
Alarm Processing Time	0:01:18	0:00:53	0:00:57	0:01:03
Turnout Time	0:05:26	0:04:10	0:05:22	0:04:59
Travel Time	0:03:25	0:01:54	0:02:27	0:02:35
Call-Arrival Repose Time	0:10:09	0:06:56	0:08:45	0:08:37
Disp-Arrival Response Time	0:08:51	0:06:04	0:07:48	0:07:34
Emergent Time (D-A)	0:07:21	0:06:50	0:08:06	0:07:26
Non-Emergent Time (D-A)	0:10:35	0:03:43	0:06:58	0:07:06

Avg Personnel Response	Jan	Feb	Mar	Q1
Avg Personnel Response/Call	6	6	6	6
00:00 - 07:00	4	5	4	4
07:00-17:00	6	5	6	5
17:00-00:00	7	7	8	7

Northville City Fire Department

Serving the cities of Northville and Plymouth

Times & Personnel 2022

	Jan	Feb	Mar	Q 1
St.2 - Avg Run Times (Metrics)	91	82	95	268
Alarm Processing Time	0:01:02	0:01:02	0:00:55	0:01:00
Turnout Time	0:05:32	0:04:13	0:04:20	0:04:42
Travel Time	0:02:37	0:02:38	0:02:52	0:02:42
Call-Arrival Repose Time	0:09:11	0:07:53	0:08:07	0:08:24
Disp-Arrival Response Time	0:08:10	0:06:51	0:07:12	0:07:24
Emergent Time (D-A)	0:07:21	0:06:23	0:06:59	0:06:54
Non-Emergent Time (D-A)	0:09:17	0:07:41	0:07:28	0:08:09

Avg Personnel Response	Jan	Feb	Mar	Q1
Avg Personnel Response/Call	7	7	7	7
00:00 - 07:00	5	5	3	4
07:00-17:00	8	8	8	8
17:00-00:00	9	7	8	8

Northville City Fire Department

Serving the cities of Northville and Plymouth

Times & Personnel 2022

St.1	2022	% Change	2021
Alarm Processing Time	0:01:02	-8.4%	0:01:08
Turnout Time	0:04:59	-4.1%	0:05:12
Travel Time	0:02:36	23.0%	0:02:07
Call-Arrival Repose Time	0:08:38	15.3%	0:07:29
Disp-Arrival Response Time	0:07:35	3.2%	0:07:21
St.2	**2022**	**% Change**	**2021**
Alarm Processing Time	0:00:59	-10.6%	0:01:06
Turnout Time	0:04:45	-16.2%	0:05:40
Travel Time	0:02:44	12.3%	0:02:26
Call-Arrival Repose Time	0:08:29	-7.3%	0:09:09
Disp-Arrival Response Time	0:07:29	-6.8%	0:08:02

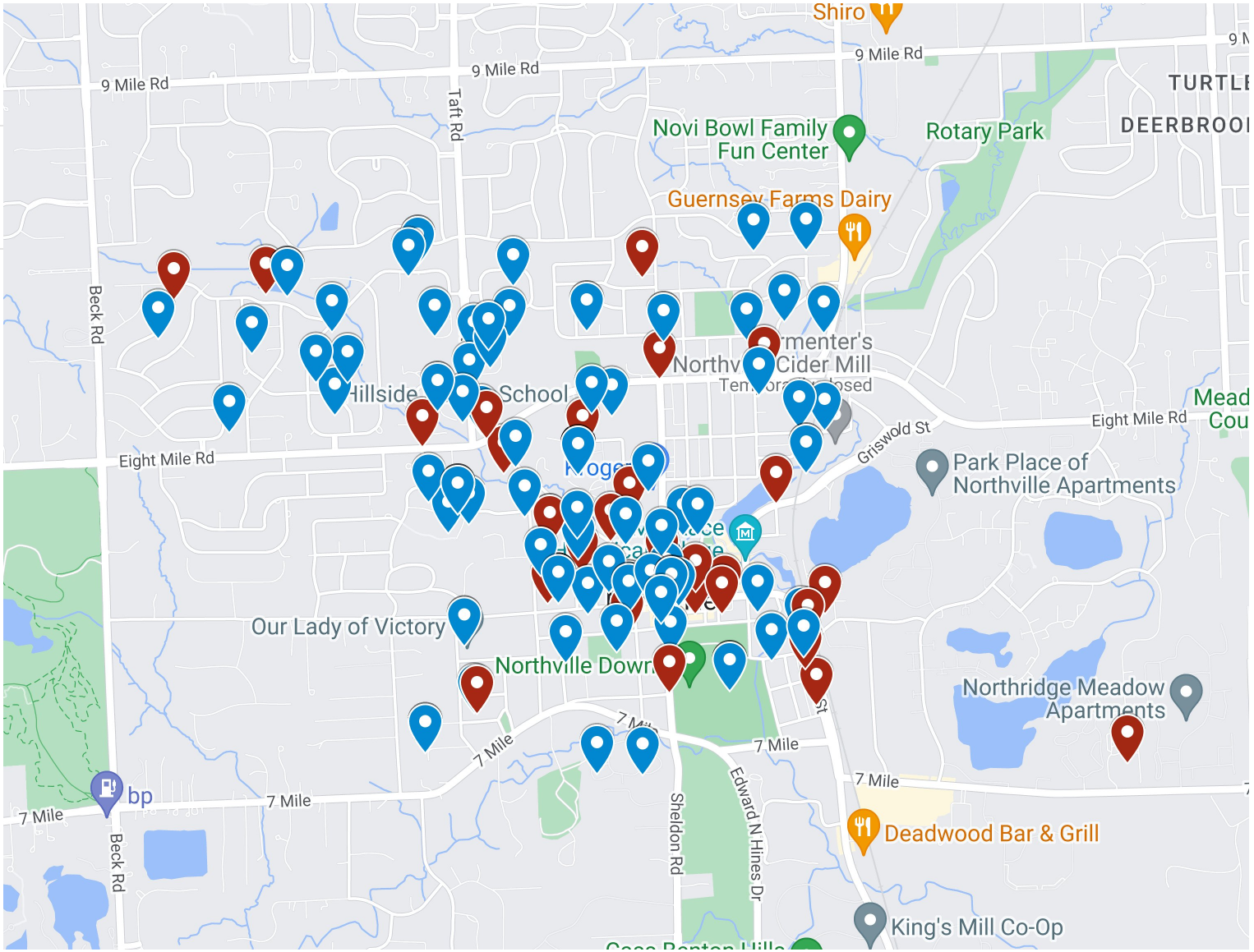
St.1 Runs 2022

St.1 Medical

All items

St. 1 Fire

All items



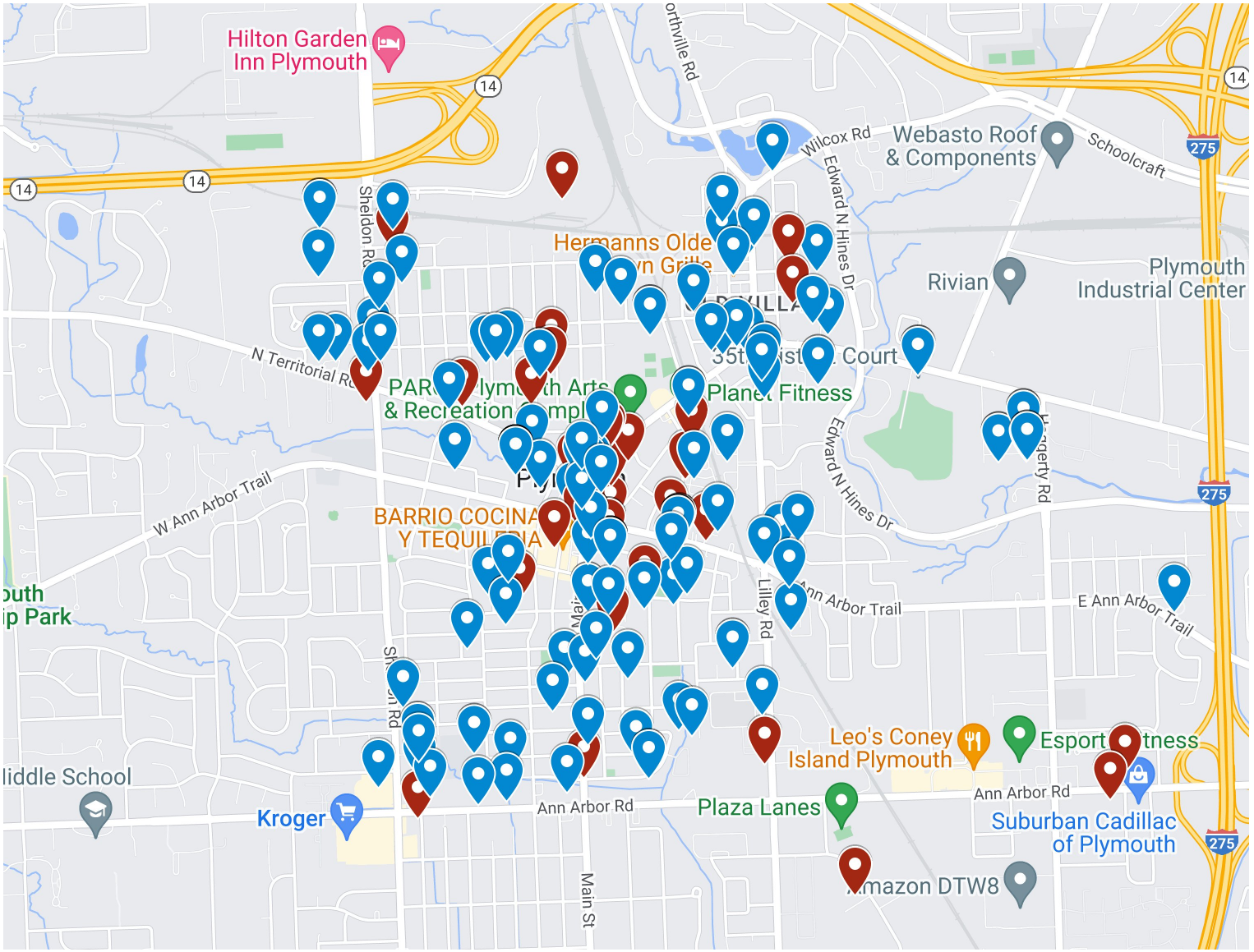
St. 2 Runs 2022

St 2 Medical

All items

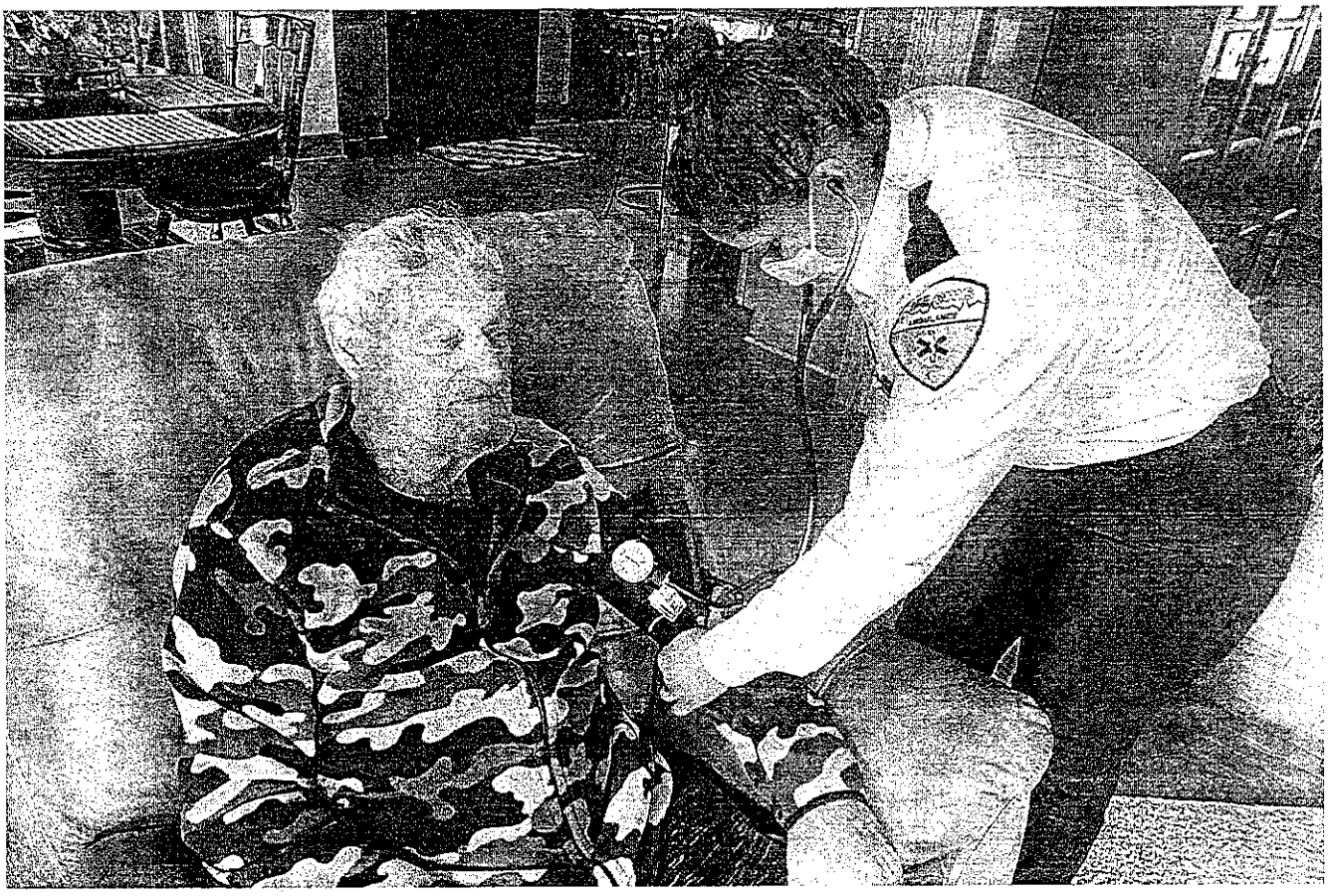
St. 2 Fire

All items



Michigan Health Watch

Home-visit programs save money, free ERs. Many insurers don't cover them.



Paramedic Shannon Williams checks the blood pressure of Ottawa County resident Leslie Toth. (Photo by Ted Roelofs)

March 25, 2022

Ted Roelofs

Michigan Health Watch

Coronavirus Michigan

SHARE THIS:

GRAND HAVEN—Paramedic Shannon Williams has become something like family to 80-year-old Grand Haven resident Leslie Toth.

Over the past few years, Williams and a team of paramedics and nurses have steered Toth through a bout with COVID-19, urinary tract infections, fever and falling blood pressure, kidney stones and a case of pneumonia that could have landed him in the hospital.

"I don't know where I'd be without it," Toth said of the paramedic team as Williams stopped by his home to check his vitals one afternoon earlier this month.

Williams is part of a Grand Rapids-based health management program built around paramedics, nurses and social workers called Tandem365. The mission is to offer support in the homes of more vulnerable residents, most of them elderly and all of them more susceptible to serious illness and frequent hospitalizations.

The result: Far fewer of the team's patients wind up in hospital emergency rooms than a comparable group of residents who lack such support.

In southeast Michigan, Ann Arbor-based Huron Valley Ambulance yields similar outcomes with an emergency response system that treats many 911-call patients at home instead of taking them to the ER. According to Huron Valley records, its community paramedicine program received just over 3,000 calls from 911 in 2020 — and was able to treat more than half of them (1,569 patients) at home instead of transporting them to the hospital.

An average ER charge in Michigan is estimated at nearly $1,300. In contrast, a visit from the Tandem365 paramedic team is about $200.

Aside from cost savings, paramedicine programs free up often-crowded ER rooms for more critical medical cases, while allowing many vulnerable patients to be treated where they are most comfortable, at home. But despite the positive results, there are fewer than a dozen such networks in Michigan.

According to advocates, that's largely because basic Medicare — federal health care insurance for those age 65 and over — and most private insurance plans won't pay for

paramedic services that don't involve hospital transport. Tandem365 is a notable exception, as its patients are covered by two insurance plans that pay for its costs.

"I think the potential for community paramedicine is huge," said Angela Madden, executive director of the Michigan Association of Ambulance Services, a trade advocacy organization that represents 70 ground ambulance agencies in Michigan.

"But the biggest roadblock to expanding this is the lack of insurance that will pay for it. That's critical to its sustainability."

Dominick Pallone, executive director of the Michigan Association of Health Plans, a Lansing-based nonprofit representative of the health insurance industry, said the largest barrier to wider insurance coverage of community paramedicine is lack of hard data for each program showing that it works.

Pallone said that in this emerging field, programs vary widely in how they operate — which can make it difficult for insurers to decide whether to fund them.

"When you've seen one (community paramedicine) program, you've seen one program," Pallone told Bridge Michigan.

"When you have a program and it's evidenced based and you can demonstrate that it's proven to work, then it's easier for insurance to cover it," he said.

The startup costs of community paramedicine programs pose a second hurdle to their expansion, according to Kristine Kuhl, community paramedic coordinator for the Michigan Department of Health and Human Services.

The state requires 150 to 200 hours of approved training for a community paramedic, a cost of $2,000 or more that the ambulance agency or paramedic must bear. That training is on top of state-mandated requirements for basic paramedic practice.

"The programs have a hard time sending paramedics through the education component. Everybody wants a (community paramedicine program) but nobody pays for it," Kuhl said.

In Ann Arbor, Huron Valley Ambulance launched its community paramedicine program in 2015, after constructing its own training curriculum for its paramedics. At a cost of about $2,400, the 160-hour course requires 40 hours of hospital clinical training, a 36-hour internship on paramedic calls and coursework that includes study on how factors like substandard housing, stress and lack of transportation can affect

patient outcomes. HVA pays the cost of the training for paramedics on its payroll who want to become community paramedics.

But the program only survives thanks to "several hundred thousand dollars" in annual subsidies from Huron Valley's nonprofit parent, Ann Arbor-based Emergent Health Partners, which owns and operates six ambulance services In 14 counties in southern Michigan. That includes Jackson Community Ambulance, which also runs a community medicine program in Jackson County.

"If you (divert) 911 calls (for community paramedic treatment), that's where you are losing money. More than 50 percent of the calls are Medicare patients and Medicare doesn't pay for it," Jason Fair, a project manager for emergent health at Huron Valley, told Bridge.

One Michigan health analyst said the insurance gap reflects a deep and long-standing flaw in the way most emergency medical care is funded — to reward ambulance services only for trips to the ER.

According to Samantha Iovan of the University of Michigan-based Center for Health & Research Transformation, a nonprofit health policy think tank, that payment model fails to recognize a small, but consistent, slice of 911 calls that can be safely treated in a patient's home.

And because community paramedics spend more time in a patient's home, they are often able to identify other forms of social assistance that would help patients with health issues, saving even more trips to the ER.

"If the community paramedic is going into a house for someone unable to manage a chronic condition, maybe that's because they don't have transportation, Iovan said. "If they are food insecure, they can connect them to a food pantry. The paramedic can serve as this connection to community organizations that can help."

At Huron Valley Ambulance — which covers Washtenaw County and parts of Wayne and Oakland — dispatchers try to identify 911 calls best suited for its community paramedicine unit. This might include problems with urinary catheters, nausea of vomiting, or shortness of breath associated with asthma.

On asthma calls, Fair of Huron Valley said, a paramedic may discover the patient is out of medication to treat it.

"The community paramedic will connect with an ER doc and the doc write the script, and the paramedic will call it in and will even drive to the pharmacy and bring it back to the house," Fair said.

Of calls for vomiting, said Fair of Huron Valley, "We see that a lot of these calls can be resolved with some fluid administered by the paramedic and medication. The paramedic can do that, and call the ER physician and discuss a treatment plan.

"You've got an hour-and-a-half into it at a patient's home, compared to several hours in an emergency room."

Over the past 18 months of the pandemic, Huron Valley paramedics have delivered more than 1,900 monoclonal antibody infusion treatments for COVID-19 at patients' homes across its service area.

"These are patients you don't want in an ER," Fair said.

In west Michigan, Tandem365 comes at community paramedicine from a different angle.

Unlike Huron Valley Ambulance, it fields no 911 calls.

Instead, it sends paramedics from Grand Rapids-based Life EMS (backed by nurses and social workers) on regular home visits to high-risk patients in an effort to prevent avoidable ER trips and hospitalizations. Tandem365 has about 1,100 patients with an average age of 77 in Kent and four other west Michigan counties.

The patients are identified by health care records for a history of frequent hospitalizations, often accompanied by multiple chronic medical conditions. It's one of a few community paramedicine networks covered by insurance, as Grand Rapids-based insurer Priority Health and Blue Cross Blue Shield of Michigan offer coverage paid through their supplemental Medicare health plans.

Phil Fennema, director of operations for Tandem365, cited a typical patient: an elderly man with congestive heart failure, a common condition in that age group that often leads to fluid buildup in the extremities and, if untreated, hospitalization.

"One of the big drivers of congestive heart failure is sodium in the diet. We had a patient that was eating a pack of hot dogs a day, thinking it was low-sodium. His congestive heart failure was completely unmanaged."

Fennema said a Tandem365 nurse discovered his dietary habit after peering in his refrigerator and confirming his favorite food.

"With our guidance, he stopped eating salty foods and microwaved dinners," Fennema said.

Janet Scovel, director of care management for Priority Health, said the insurer continues to fund coverage through Tandem365 for a simple reason: The evidence says it works to cut hospitalizations and ER trips for its patients.

"It's definitely worth the investment, not only to control costs but it also improves the quality of life for our members and their families. It's a win-win," Scovel told Bridge.

Earlier this month, community paramedic Alex Burgnon set out on a trip to pick up a urine sample from 64-year-old Nora Huls, a health care receptionist who lives alone in a suburban Grand Rapids apartment. Her stack of health issues includes congestive heart failure, cirrhosis of the liver and high blood pressure.

Suburban Grand Rapids resident Nora Huls talks with paramedic Alex Burgnon, who dropped in to pick up a urine sample and deliver it to a hospital lab. (Photo by Ted Roelofs)

Huls is also prone to urinary tract infections, which if left unidentified and untreated can migrate to the kidney and lead to sepsis, a dangerous blood infection. She also uses a wheelchair and walker, which makes trips to a lab to drop off a urine sample an ordeal she'd just as soon skip.

She described what that entails: "I have to get into my car, put my wheelchair in there, get my walker out, go around to the front, get in my car, haul the walker over my head to the passenger seat, go to the lab. Then I haul it all out, drop the sample off at the lab, go to my car and do it again, go home, and then do it again. I'm really getting Popeye arms from pushing that wheelchair around."

Instead, on this day, Burgnon would drop off her urine sample at a Grand Rapids hospital to check for infection.

Before Burgnon left, Huls said she was more than grateful for the help.

"You have no idea — it's taken so much stress out of my life," she said.

It's also kept her out of the hospital of late. Huls was hospitalized five times in the year before she enrolled four months ago in Tandem365 — and not once since then.

Toth, the Ottawa County resident — who retired at age 60 from the Ottawa County Department of Public Health — has been enrolled in Tandem365 over the past three years. Its paramedic team has guided Toth and his wife, Deanna, through a gauntlet of health issues.

Diagnosed in his 40s with an autoimmune disease that can affect the lungs and kidneys, Leslie Toth suffered compression fractures in his spine nine years ago as a side effect from a steroid he took for his autoimmune disease. He's also prone to frequent urinary tract infections and kidney stones.

In August, Toth came down with a fever, nausea and a cough.

"I called and said, 'Something's not right,'" Deanna recalled. "He was getting worse."

A Tandem365 paramedic rolled into their driveway within about an hour, performed a swab test for COVID-19 and dropped it off at a lab. The lab test confirmed the following morning he was positive for the coronavirus. A few hours later, a paramedic showed up at their door to administer intravenous fluids and monoclonal antibodies.

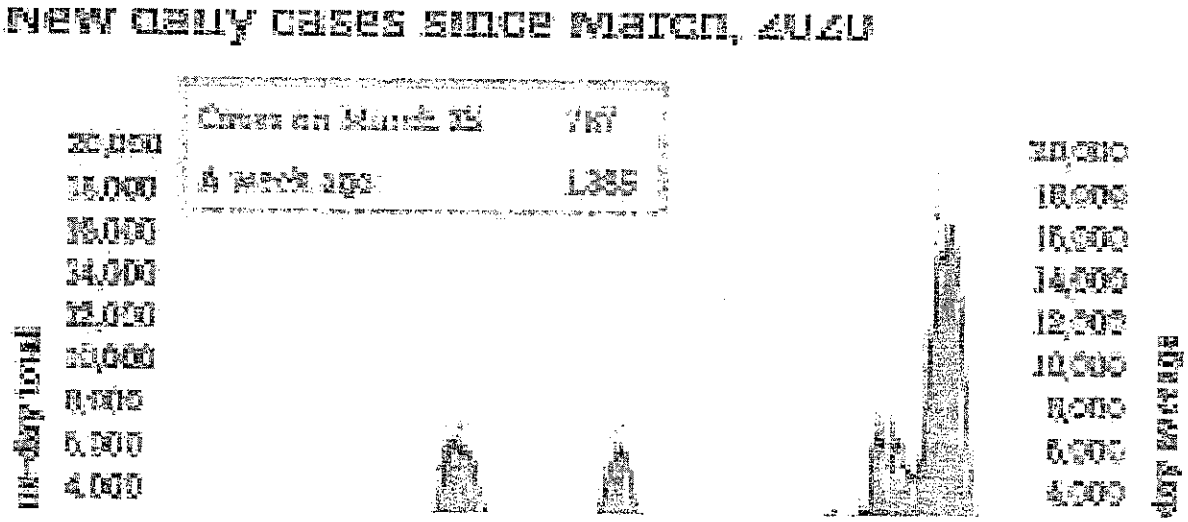
"He was much better within four days," Deanna said.

Toth was hospitalized five times in the year before he enrolled in the paramedicine program, its records show. That's been cut to five times in the three years since.

"That's a big, big change," Deanna said,

"When he started having all these issues, I always called 911 because I didn't know what to do so fast. It was just so traumatic. Now I can talk to Tandem365 any time and get decisions made about what to do. There are no words to say how much that has meant to us."

Related Articles:



Coronavirus Tracker | Cases, positive rates remain low

March 25, 2022 | **Bridge Staff** in **Michigan Health Watch**

FIREHOUSE

LEADERSHIP

Leadership Lessons: Management Mayday

Jared Renshaw urges chiefs to keep their eyes out for signs of a potential administrative failure as well as not to hesitate to "call for help" as soon as such a situation is identified.

Jared Renshaw

Mayday, mayday, mayday! No incident commander or firefighter wants to hear that phrase while operating on an emergency scene.

Of course, the circumstances for any mayday situation are all different, but all maydays have one important factor in common: A firefighter(s) is in trouble and might need help immediately.

Can fire chiefs who are faced with a severe administrative issue or who believe that their career is in jeopardy call a management mayday? Not only can they, but they should. This action assists them in resetting within their position and, hopefully, in getting them and their agency back on the right track.

Two of the most crucial pieces of this action are a fire chief's ability to identify the factors and/or the reasons for the management mayday and the ability to identify the information that's needed to relay across the proverbial radio when calling for help.

Reason for the mayday

When firefighters call a mayday, a single event or series of events are occurring that prompts them to put out the call that assistance is required. In regard to a need for a

fire chief to call a management mayday, one must recognize that the position of fire chief is a complex one. The position and all that it entails vary from department to department.

Not every issue or problem might exist in each agency, but below are some that all fire chiefs should be aware of, which, if not addressed, can lead to failure—and the only way to deal with any of them is to call for help.

- No matter the makeup of an agency (volunteer, career, combination), the loss of trust or faith in a fire chief by subordinates quickly leads to all of the chief's decisions being questioned and to the department's policies not being adhered to or enforced. The longer that it takes for you to get a handle on this, the more that the department will start to spiral out of your control, until it reaches a point where it is lost.
- When your most driven, energetic and passionate employees become quiet, a fire chief likely faces a workforce that has low morale. A fire chief must realize that this directly affects the quality of work that the department's people execute. This might not only affect operations on the fireground but also might be exhibited during public relations events and interaction within the department's community.
- For a fire chief and the department to succeed, the relationship between a chief, the municipality's elected officials and the municipal manager must be strong. The bonds must be built on mutual respect and understanding, because, as the department head, the fire chief is looked to as the person for making critical decisions and to be a leader during times of peril and elevated stress. When the relationship between the chief, the municipality's elected officials and the municipal manager becomes strained/almost nonexistent, your position will be in question. So will your status within the government's hierarchy.
- A fire department chief's biggest cheerleaders are the people who are in the community that you serve and protect. However, when lives are lost or fire damage is significant—resulting from factors that might be out of one's control

—perceptions might outweigh reality even when fire chiefs are at their best operationally. At such a point, fire chiefs must build back the support that can be jeopardized easily because of one incident.

A management LUNAR

When firefighters find themselves in trouble, they push their emergency button on their radio and transmit a series of information to the incident commander. That information is used to formulate a rescue plan. One of the popular acronyms to assist in remembering which information to relay is LUNAR (location, unit, name, assignment/air supply, resources needed). This same acronym, modified accordingly, can assist fire chiefs when they find themselves in a position where they must call a management mayday.

Look at yourself—Identify problems or issues. Some of these already might be known, particularly if your boss(es) informed you of them or if subordinates made official complaints or generated documentation. A good example of this would be a vote of no confidence, which would be accompanied by a list of grievances.

Understand—After identifying the problem(s), do what's necessary to comprehend how you got to that point and how to move on from it.

Needs—This applies to what you must do to fix or overcome the problem(s).

Assessment—After you implement a fix, see whether it's working or whether it must be modified. This portion of the management mayday is continuous, and you can't lose track of it. If you do, you might end up back in the same spot at which you called the mayday.

Reach out—During any portion of your management mayday, never hesitate to contact those who are in your network or in your close circle of trusted peers. Those people likely are able to provide advice as well as their truthful opinions on the matter. It's very well possible that you won't like what they have to say, but their observations might be just what you need to hear.

Look for the signs

Unfortunately, when chiefs are handed their gold badge and white helmet, an instructional guide or how-to book isn't given to them, too. Throughout a fire service career, much experience comes in the form of lessons learned, and that's more so from mistakes than it is from perfection/when things go right.

Don't disregard the signs of a potential administrative failure. Don't hesitate to make the call for help as soon as possible, because that call might be the only way to salvage what you have worked so hard for—your position.

LAB REPORT Noah Fromson March 29, 2022 5:00 AM

Critical and underutilized: fire and police responders associated with higher cardiac arrest survival rates

Non-medical responders are often the first to arrive at the scene.

Lead image/visual: Jacob Dwyer, Michigan Medicine

In a cardiac arrest, everything comes down to how quickly you "get on the chest."

Every minute CPR is not initiated or an automated external defibrillator, or AED, is not utilized, the chance of survival decreases by 7-10%.

A new study finds that survival rates increase when first responders in police and fire departments intervene in out-of-hospital cardiac arrests. However, the paper published in *Resuscitation* suggests these non-medical first responders are likely underutilized as lifesaving resources.

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Researchers from Michigan Medicine analyzed more than 25,000 cardiac arrest incidents in the state from 2014 to 2019. They found that police and fire first responders initiated CPR in 31.8% of out-of-hospital cardiac arrests, and police accounted for AED use in 6.1% of incidents. Those interventions were associated with significantly higher chances of survival and hospital discharge with good neurological outcomes.

"It is clear that these non-medical first responders play a critical role in time saved to chest compressions," said Mahshid Abir, M.D., M.Sc., senior author of the paper and an emergency physician at University of Michigan Health, Michigan Medicine. "In fact, in communities that were the highest performing in the state as far as survival is concerned, those responders work closely with emergency medical services to cross-train and debrief after incidents. When these agencies see their role as not just preventing crime or stopping fires, but also saving lives, it improves the overall chain of survival for cardiac events."

The likelihood of the return of a sustained heart rhythm for out-of-hospital cardiac arrest didn't change significantly when CPR or defibrillation was initiated by an EMS provider versus a non-medical first responder. However, the survival rate for initiation by non-medical first responders was significantly higher.

In fact, for patients who had CPR initiated by non-medical first responders, the odds of survival were 1.25 times higher. Similarly, patients who had an AED applied by police were 1.4 times more likely to survive.

"Our findings reinforce what we know: whoever can start CPR and utilize an AED *first* is the best person to do it," said Rama Salhi, M.D., M.H.S., M.Sc., lead author of the paper and national clinical scholar at the U-M Institute for Healthcare Policy and Innovation. "Sometimes, that's bystanders, but for a large percentage who have unwitnessed cardiac arrests, police and fire are on the scene first. Current evidence suggests this may be in upwards of 50% of cardiac arrest calls. In a disease where seconds and minutes matter, this can be lifechanging."

"Our findings reinforce what we know: whoever can start CPR and utilize an AED first is the best person to do it."

Rama Salhi, M.D., M.H.S.

Non-medical first responders can treat cardiac arrest similar to overdose, Abir says. When they receive an overdose call, law enforcement officials will often administer naloxone, or Narcan, which can reverse overdose and save lives.

SEE ALSO: Less than 10% of opioid overdose patients are prescribed potentially lifesaving medications after emergency treatment

"If we make it mission-oriented to begin with, because you want to get buy-in from folks, we can give them the training to optimize giving chest compressions," said Abir, who is also an associate professor of emergency medicine at University of Michigan Medical School. "Some people are just not comfortable doing this, so training them in these applications, including AEDs, and purchasing them for first responder vehicles would save more lives in the most effective way."

The research team recognizes that in some communities where there may be fractured or complicated relationships with law enforcement, people might not be comfortable with anything other than an ambulance arriving on scene.

"All of these responders can make a huge difference in the survival of a person's loved one, so we need to educate the communities around when and for what to call 9-1-1, and also who shows up and why they need to open the door," Abir said. "If we take this extra step to educate around the emergency response system overall, it will help improve the relationships and outcomes."

Michigan Medicine has partnered with first responders in Washtenaw and Livingston counties to create the Out-of-Hospital Cardiac Arrest Learning Community, which works to improve survival rates through awareness and implementation of lifesaving interventions in the region.

The learning community has several work groups focused on AED accessibility, community engagement and more.

"Ultimately the goal is to think creatively about how to get care to our patients in the least amount of time," said Salhi, an emergency physician at U-M Health. "This means empowering all members of our community to get involved and save someone's life."

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City of Northville
Fire Department Budget
FY2023

	Projected Budget FY2021-22			Proposed Budget FY2022-23				
	Budget	Northville 43%	Plymouth 57%	Budget	Northville 38%	Plymouth 62%	$ Change	% Change
Administrative								
Vehicle Allowance	6,000	2,580	3,420	6,000	2,280	3,720	-	0.0%
Wages - Adminstrative	90,515	38,921	51,594	92,780	35,256	57,524	2,265	2.5%
Training Wages	86,160	37,049	49,111	88,315	33,560	54,755	2,155	2.5%
Disability Insurance	6,500	2,795	3,705	6,500	2,470	4,030	-	0.0%
Fringe Benefits	59,560	25,611	33,949	60,200	22,876	37,324	640	1.1%
Uniforms & Clothing	9,000	3,870	5,130	10,000	3,800	6,200	1,000	11.1%
Contractual Services	2,800	1,204	1,596	2,800	1,064	1,736	-	0.0%
IT Support & Software Maintenance	12,900	5,547	7,353	13,510	5,134	8,376	610	4.7%
Legal Services	200	86	114	200	76	124	-	0.0%
Employee Physicals & Drug Tests	11,500	4,945	6,555	17,000	6,460	10,540	5,500	47.8%
Medical/Certificate Renewals	445	191	254	600	228	372	155	34.8%
Phone & Internet Service	2,820	1,213	1,607	2,820	1,072	1,748	-	0.0%
Cleaning Allowance	550	237	313	550	209	341	-	0.0%
Memberships & Dues	1,975	849	1,126	1,975	751	1,224	-	0.0%
Education & Training	12,100	5,203	6,897	12,100	4,598	7,502	-	0.0%
Conferences & Meetings	150	65	85	500	190	310	350	233.3%
Liability & Property Insurance	3,580	1,539	2,041	3,680	1,398	2,282	100	2.8%
Contingency	16,220	6,975	9,245	10,000	3,800	6,200	(6,220)	-38.3%
Operations & Maintenance								
Wages - Runs	457,555	196,749	260,806	468,995	178,218	290,777	11,440	2.5%
Wages - Mutual Aid	30,000	12,900	17,100	30,750	11,685	19,065	750	2.5%
Wages - Inspections & Station Coverage	82,255	35,370	46,885	91,990	34,956	57,034	9,735	11.8%
Fringe Benefits	66,615	28,644	37,971	67,500	25,650	41,850	885	1.3%
Supplies	54,070	23,250	30,820	45,850	17,423	28,427	(8,220)	-15.2%
Automotive Parts	3,000	1,290	1,710	3,000	1,140	1,860	-	0.0%
Fuel & Oil - Equipment	250	108	142	250	95	155	-	0.0%
Automotive Service	21,000	9,030	11,970	21,000	7,980	13,020	-	0.0%
Radio Maintenance	5,500	2,365	3,135	3,000	1,140	1,860	(2,500)	-45.5%
Vehicle Insurance	10,425	4,483	5,942	10,730	4,077	6,653	305	2.9%
		Northville 100%	Plymouth 0%		Northville 100%	Plymouth 0%		
Northville Only - Admin & Operations								
Wages - Northville Special Events	3,535	3,535	-	3,615	3,615	-	80	2.3%
Fringe Benefits	410	410	-	415	415	-	5	1.2%
Fuel & Oil - Vehicles	4,300	4,300	-	4,300	4,300	-	-	0.0%
Contractual Services	2,400	2,400	-	2,400	2,400	-	-	0.0%
Mutual Aid/EMS Participation Fees	3,960	3,960	-	3,980	3,980	-	20	0.5%
Unfunded Pension Contribution	14,755	14,755	-	16,090	16,090	-	1,335	9.0%
Retiree Healthcare Costs	7,015	7,015	-	-	-	-	(7,015)	-100.0%
Hydrant Rental	10,145	10,145	-	10,145	10,145	-	-	0.0%
Vehicle Insurance	16,645	16,645	-	17,140	17,140	-	495	3.0%
		Northville 0%	Plymouth 100%		Northville 0%	Plymouth 100%		
Plymouth Only - Admin & Operations								
Wages - Plymouth Special Events	12,535	-	12,535	12,845	-	12,845	310	2.5%
Fringe Benefits	1,450	-	1,450	1,465	-	1,465	15	1.0%
Mutual Aid/EMS Participation Fees	4,465	-	4,465	4,500	-	4,500	35	0.8%
Unfunded Pension Contribution	2,110	-	2,110	2,300	-	2,300	190	9.0%
Retiree Healthcare Costs	1,050	-	1,050	-	-	-	(1,050)	-100.0%
Liability & Property Insurance	370	-	370	380	-	380	10	2.7%
Total Operations	1,138,790	516,236	622,557	1,152,170	465,673	686,500	13,380	
5% Overhead	56,940	-	56,940	57,609	-	57,609	669	1.2%
Equipment Reserve	154,250	66,328	87,922	155,470	59,079	96,391	1,220	0.8%
Debt Service Payments	52,744	22,680	30,064	52,523	19,959	32,564	(221)	-0.4%
Total Contribution	**1,349,980**	**582,564**	**767,419**	**1,365,249**	**524,752**	**840,500**	**15,269**	**1.1%**
				1.1%	-9.9%	9.5%		