



STATE OF MAINE
PUBLIC UTILITIES COMMISSION

Philip L. Bartlett, II
CHAIRMAN

R. Bruce Williamson
Randall D. Davis
COMMISSIONERS

Harry Lanphear
ADMINISTRATIVE DIRECTOR

November 1, 2019

Honorable Mark W. Lawrence, Senate Chair
Honorable Seth A. Berry, House Chair
Energy, Utilities and Technology Committee
100 State House Station
Augusta, Maine 04333

**Re: Report on the Work of the Standardized Dispatch Protocols
Stakeholder Group Pursuant to Resolves 2019, Chapter 24**

Dear Senator Lawrence and Representative Berry:

During the 2019 legislative session, LD 674, Resolve, Regarding Implementation and Funding of E911 Dispatch Protocols became law.¹ The Resolve directed the Commission to convene a stakeholder group to develop recommendations regarding standardized dispatch protocol requirements and use of the 911 fund to cover costs of emergency dispatch protocol implementation. It also directed the Commission to submit a report on the work of the stakeholder group to the Committee by November 1, 2019. Attached is the Commission's Report for the Committee's consideration.

If you have any questions, please do not hesitate to contact us.

Sincerely,

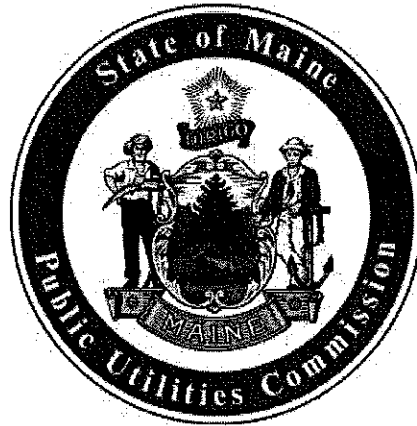
Philip L. Bartlett II, Chairman

On behalf of the Chairman
R. Bruce Williamson, Commissioner
Randall D. Davis, Commissioner
Maine Public Utilities Commission

cc: Energy, Utilities and Technology Committee Members
Lucia Nixon, Legislative Analyst

¹Resolves 2019, c. 24.

MAINE PUBLIC UTILITIES COMMISSION



REPORT ON THE WORK OF THE STANDARDIZED DISPATCH PROTOCOLS STAKEHOLDER GROUP PURSUANT TO RESOLVES 2019, CHAPTER 24

**Presented to the
Joint Standing Committee on
Energy, Utilities and Technology
November 1, 2019**

I. INTRODUCTION

On May 8, 2019, the Governor signed into law L.D. 674, Resolve, Regarding Implementation and Funding of E-9-1-1 Dispatch Protocols (Resolve).¹ The Resolve states:

Sec. 1. Stakeholder group. Resolved: That the Public Utilities Commission, Emergency Services Communications Bureau shall convene a stakeholder group to develop recommendations regarding standardized dispatch protocol requirements and use of the E-9-1-1 fund to cover costs of emergency dispatch protocol implementation. The bureau shall invite, at a minimum, representatives of the Department of Public Safety, public safety answering points, dispatch centers that are not public safety answering points, chiefs of police, county sheriffs, fire chiefs, county commissioners, emergency medical service providers, dispatchers, the Maine Municipal Association, the Maine Emergency County Communications Association and the Maine Chapter of the National Emergency Number Association to participate in the stakeholder group. The stakeholder group shall examine and make recommendations regarding:

1. The use of funds available in the E-9-1-1 fund to cover costs associated with the adoption and implementation of standardized dispatch protocols and related requirements, with attention to efficient and effective use of funds and providing relief to local taxpayers;

2. Issues identified by stakeholders related to the adoption and implementation of standardized dispatch protocols for fire 9-1-1 calls and medical 9-1-1 calls, with consideration of staffing, training, funding, quality assurance, dispatch response time and effectiveness of emergency services; and

3. Potential future implementation of standardized dispatch protocols for police 9-1-1 calls on a mandatory or voluntary basis.

Sec. 2. Report. Resolved: That, no later than November 1, 2019, the Public Utilities Commission, Emergency Services Communication Bureau shall submit a report on the work of the stakeholder group established in section 1 to the Joint Standing Committee on Energy, Utilities and Technology. The report must include the recommendations of the stakeholder group regarding the issues identified in section 1, along with an outline of changes to law or rule necessary to implement those recommendations. The committee may report out a bill to the Second Regular Session of the 129th Legislature related to the report.

¹ Resolves 2019, c. 24.

II. BACKGROUND

Emergency dispatch protocols provide structured standardized call taking processes to assess a caller's condition, gather scene information, provide instruction to callers, and provide an appropriate response to the emergency based on the answers to the questions. Public Safety Answering Points (PSAPs) are emergency communications centers that receive 911 calls and, as appropriate, directly dispatch emergency response services or transfer the calls to other public or private safety agencies for dispatch. Maine has 24 PSAPs. Dispatch only centers are emergency communications centers that do not receive 911 calls directly (calls are transferred to them from the PSAPs) and these facilities only perform dispatch functions. Maine has 34 dispatch only centers.² Currently, emergency medical dispatch (EMD) and emergency fire dispatch (EFD) protocols are required in Maine. Under current law, the 911 surcharge pays for the protocol software, the printed materials (i.e., card sets), 911 equipment and maintenance at PSAPs and the training of call takers.³

PSAPs, and dispatch only centers that voluntarily offer EMD or EFD, are required to regularly review individual calls where the protocols are used (referred to as quality assurance programs). This review is performed and funded by the PSAPs or dispatch only centers that have elected to use protocols. This regular review of calls helps ensure that the protocols are being followed correctly. The call review requirements are set by the Department of Public Safety Emergency Medical Services Board (DPS EMS) and the Commission's Emergency Services Communication Bureau (ESCB or Bureau).

III. STAKEHOLDER PROCESS

On July 15, 2019, the Commission opened a Notice of Inquiry⁴ to assist the Commission in convening the 911 standardized dispatch protocol stakeholder group and developing the report to the Legislature.⁵ Two stakeholder meetings were held at the Commission's offices at 101 2nd Street, in Hallowell on July 31 and August 16, 2019. At the first meeting, stakeholders discussed:

The use of funds available in the E-9-1-1 fund to cover costs associated with the adoption and implementation of standardized dispatch protocols and related requirements, with attention to efficient and effective use of funds and providing relief to local taxpayers; and

² This does not include private or Federal dispatch only centers.

³ 25 M.R.S. § 2927.

⁴ *MPUC Notice of Inquiry Related to a 911 Standardized Dispatch Protocols Stakeholder Process and Report Pursuant to Resolves 2019, c. 24, Notice of Inquiry, Docket No. 2019-00159 (July 15, 2019).*

⁵ The Commission notified the stakeholders specifically identified in the Resolve. The Commission also provided notice of this proceeding to the 911 Advisory Council, the Office of the Public Advocate, and those who testified on LD 674, the bill that resulted in the Resolve creating the stakeholder group, and LD 743, another protocols related bill considered during the 2019 legislative session.

Issues identified by stakeholders related to the adoption and implementation of fire 9-1-1 calls and medical 9-1-1 calls, with consideration of staffing, training, funding, quality assurance, dispatch response time and effectiveness of emergency services.

At the second meeting, stakeholders discussed:

Potential future implementation of standardized dispatch protocols for police 9-1-1 calls on a mandatory or voluntary basis; and follow up issues from the July meeting. The group also discussed the report to the Legislature and stakeholder recommendations.

The July 31st stakeholder meeting was attended by Representative Tina Riley; DPS EMS; Franklin Regional Communications Center (RCC); Sagadahoc RCC; Somerset RCC; Lewiston/Auburn 911; Portland RCC; Oxford County RCC; Saco Police Department; Waterville Police Department; Brunswick Police Department; Hancock RCC; Androscoggin RCC; Waldo RCC; Maine Emergency County Communications Association (MECCA); York Police Department; Kennebec Sheriff's Office; Knox RCC; Penobscot RCC; Scarborough Fire Department; Falmouth Police Department, Maine Municipal Association (MMA); the Telecommunications Association of Maine (TAM), Stephan Bunker and the protocol vendor, Priority Dispatch Corporation⁶.

The August 16th stakeholder meeting was attended by Knox RCC; Waldo RCC; MECCA; Androscoggin RCC; Hancock RCC; Franklin RCC; Oxford County RCC; TAM; Farmington Police Department; Lewiston/Auburn 911; Penobscot RCC; Scarborough Police Department; Saco Police Department; MMA; Falmouth Police Department; DPS EMS; Stephan Bunker; Augusta Police Department; Lincoln RCC; York Police Department; Eric Parry, Federal Engineering and Priority Dispatch Corporation.

On September 19, 2019, the Commission issued a draft report for stakeholder comment. Comments were due October 3. The Commission also invited stakeholders to file written comments, at any time during the proceeding, on any of the issues specifically identified in the Resolve or any related issue that may be helpful to the Commission. The Commission received written comments from the MMA; York Communications Center; Scarborough Fire Department; TAM; Scarborough Police Department; Scarborough Emergency Communications Center (ECC); Scarborough Public Safety; Hancock County RCC; Southport Fire Department; Boothbay Fire Department; Nobleboro Fire Department, Bristol Fire and Rescue; Waterville Police Department, Stephan Bunker⁷; Falmouth Police Department; Massasoit Engine Company Damariscotta Fire Department; Newcastle Fire Department; York Fire Department; Penobscot RCC,

⁶ Priority Dispatch is the exclusive vendor of the International Academies of Emergency Dispatch (IAED)'s standardized dispatch protocols. The IAED is a nonprofit standard-setting organization promoting safe and effective emergency dispatch services worldwide. Comprising three allied Academies for medical, fire, and police dispatching, the IAED supports first responder-related research, unified protocol application, legislation for emergency call center regulation, and strengthening the emergency dispatch community through education, certification, and accreditation. See <https://www.emergencydispatch.org/>

⁷ Mr. Bunker states that he is submitting comments as a member of the 911 Advisory Council and from the perspective of a fire fighter, first responder.

Penobscot County Fire Chief's Association; Ralph Cammack; Boothbay Harbor Fire Department, Maine Fire Chiefs' Association; Edgecomb Fire Department, the International Academies of Emergency Dispatch (IAED) and Priority Dispatch Corporation. No commenters commented on the draft report. All comments filed are attached to the report.

The Commission provides this report to the Legislature pursuant to the Resolve. For more information on the history of 911 standardized dispatch protocols in Maine, please see Maine Public Utilities Commission Report Related to Standardized Dispatch Protocols for Police 911 Calls (January 15, 2019) (January 2019 Police Protocols Report) available at: <https://www.maine.gov/mpuc/legislative/reports.shtml>

IV. STAKEHOLDER DISCUSSIONS

Below is a summary of the stakeholder meeting discussions. As the meetings were intended to facilitate an open and informal discussion among the stakeholders, the Commission does not attribute statements made during meetings to specific stakeholders. The Commission does cite to written comments filed in the docket but does not capture every statement made by stakeholders. The Commission also notes that a couple stakeholders raised concerns about the participation of Priority Dispatch Corporation and Stephan Bunker who, in addition to being on the 911 Advisory Council and a firefighter, is a contracted instructor for Priority Dispatch Corporation, stating they stand to gain by any decision to mandate standardized dispatch protocols in Maine. The Commission invited the protocol vendor to the stakeholder meetings to respond to questions from Commission Staff and stakeholders. Commission proceedings are open to anyone who wants to participate and the Commission and the Legislature benefit by having comments from all interested persons and can consider comments appropriately.

A. Mandate or Guideline

A number of stakeholders stated that EMD protocols work well and have saved lives, but that the fire protocols are not as good as the medical protocols, that they are more cumbersome, and it is difficult to navigate through the protocols.⁸ A number of stakeholders expressed concerns that the protocols are mandated, some suggesting that protocols be a guide for calls that are not handled on a regular basis, noting that they already had written policies in place before standardized dispatch protocols were required. The Commission notes that the fire protocols address 27 types of fire emergency situations. In addition to the more commonly thought of situations, they also include other emergencies such as a car being on fire, hazmat situations, strange or unknown odors, an explosion, a high angle rescue, a suspicious package, aircraft emergencies, a bomb threat and a gas odor or gas leak.

Some stakeholders stated that the fire protocols seem to be designed more for large

⁸ See, e.g., Comments of the York Communications Center; Scarborough ECC; Penobscot County Fire Chiefs' Association; Penobscot County RCC, Maine Fire Chiefs' Association; York Fire Department.

cities than smaller communities.⁹ Some stakeholders do not believe fire protocols should be required or mandated in Maine at all and stated that the State should remove the EFD requirement.¹⁰ One stakeholder stated that Minneapolis, Minnesota recently abandoned the protocols.¹¹

Another stakeholder commented that change is hard and there should be more education regarding the protocols. The Bureau noted the public service announcements launched by the Commission in August 2019, which are intended to help increase public awareness about what happens when calling 911 and the protocol-based call taking process.

Some stakeholders stated that they are experiencing "growing pains" with the implementation of fire protocols, but noted that was true with respect to the implementation of medical protocols. One stakeholder who said the EMD protocols have saved lives stated he was initially very resistant to EFD, but then he became a center director and found the protocols to be a safe haven when hiring people that did not have any public safety experience. The protocols help get new dispatchers without any police or fire background educated quickly about how to handle challenging fire rescue calls and apply the protocols effectively. This stakeholder supports fire protocols and believes that more time should be given to work out any implementation issues (e.g., by including local policies into the protocols) which could make the protocols less cumbersome. Other stakeholders agreed that the protocols make it easier to train new dispatchers. Another stakeholder stated that protocols provide uniformity and are generally beneficial when dispatching calls for medical and fire emergencies stating these are stable and predictable calls that almost never involve an unexpected encounter with a deadly adversary whereas police calls are ever changing and dynamic and require dispatchers to use all their mental agility to adapt to the unfolding events to protect the lives of the officer and the public.¹²

Another stakeholder pointed to, and quoted from, the 2011 and 2012 protocol reports that were done for the Commission and encouraged others to review the findings and recommendations of these reports.¹³ This stakeholder also pointed to the National Emergency Numbering Association (NENA)'s¹⁴ Emergency Call Processing Protocols

⁹ See, e.g., Comments of the Scarborough Police Department; York Communications Center; Scarborough Fire Department; York Fire Department.

¹⁰ See Scarborough Fire Department Comments. As part of the Department's comments, the Department states that "the Maine Fire Chiefs' Association voted twice not to support mandatory implementation of the EFD protocols yet the Bureau did so anyway without [its] support." The Commission notes that the law enacted by the Maine Legislature required EFD in Maine and made the protocols mandatory. See also York Communications Center Comments, Scarborough Police Department Comments, Scarborough ECC Comments.

¹¹ See Scarborough ECC Comments.

¹² See Waterville Police Department Comments.

¹³ See Stephan Bunker Comments. The reports (Recommendations for Establishing and Maintaining a Quality Assurance Program Related to PSAP Quality Assurance (March 2011) and Recommendations for Implementing Fire and Police Protocol Systems for Maine's PSAPs (February 2012)) are available on the Commission's website at: <https://www.maine.gov/maine911/forms-publications>.

¹⁴ See The National Emergency Numbering Association (NENA) is a professional organization solely focused on 9-1-1 policy, technology, operations, and education issues. NENA promotes the implementation and awareness of 9-1-1, as well as international three-digit emergency communications systems. See <https://www.nena.org>

Standard,¹⁵ which is designed to provide uniformity and consistency in handling 911 and other emergency calls, noting that it recommends standardized call processing protocols for all emergency call types. This stakeholder also filed comments regarding the importance of dispatchers and the critical scene information they provide to help ensure police officer safety.

The protocol vendor comments noted that every question in its system has a defined objective: to identify safety risks to the caller, patient/victim or responders, decide the most appropriate recourse, look for conditions requiring caller instructions and provide responders with appropriate information as they respond.¹⁶ The protocol vendor also noted that there is a process that allows protocols users to assist the IAED in making changes to all protocols.

B. Timing of Emergency Response

A number of stakeholders raised concerns that the use of protocols has added to the processing time of calls (not the time to dispatch a call), which may delay the emergency response, and that there is public frustration with scripted, robot-like protocol questions.¹⁷ One stakeholder, for example, noted that it has data showing that pre EFD the time to process a call (not dispatch the call) took 1 ½ minutes; post EFD the time increased to 4 ½ minutes. Another noted that its data showed that the pre EFD time to process a call was 2 minutes and 56 seconds, while post EFD it increased to 4 minutes and 28 seconds.¹⁸ Other stakeholders stated that there has been an additional 60 second delay between call receipt and dispatching with fire protocols noting that a medium developing fire will have doubled in size during that 60 second period.¹⁹

Some stakeholders stated that delay in dispatching has been attributed to waiting for the send point to be reached while following the protocol and that this requirement should be removed if EFD remains in Maine in order to ensure dispatchers can quickly dispatch once core information (i.e., who, what and where) has been communicated.²⁰ The protocol vendor noted in its comments that the fire protocols allow for an immediate dispatch in high risk emergency situations and that the median time to dispatch in these situations is 27 seconds. The Commission notes that these high risk emergency situations include: a reported building or structure fire, being trapped in a building fire, a

¹⁵ NENA Emergency Call Processing Standard/Model Recommendation NENA 56-006 (June 7, 2008).

¹⁶ See Priority Dispatch Comments.

¹⁷ See, e.g., Comments of the Scarborough Fire Department; York Communications Center; Scarborough Public Safety; Scarborough Police Department; Scarborough ECC; Southport Fire Department; Boothbay Fire Department; Nobleboro Fire Department; Bristol Fire and Rescue; Massasoit Engine Company Damariscotta Fire Department; Newcastle Fire Company Inc.; Penobscot County Fire Chiefs' Association; Ralph Cammack; Boothbay Harbor Fire Department; Maine Fire Chiefs' Association, Edgecomb Fire Department, Falmouth Police Department, Waterville Police Department.

¹⁸ See Penobscot County RCC Comments.

¹⁹ See, e.g., Comments of the Southport Fire Department; Boothbay Fire Department; Nobleboro Fire Department; Bristol Fire and Rescue; Massasoit Engine Company Damariscotta Fire Department; Newcastle Fire Company, Inc.; Boothbay Harbor Fire Department; Edgecomb Fire Department.

²⁰ See, e.g., Comments of the Nobleboro Fire Department; Massasoit Engine Company Damariscotta Fire Department; Boothbay Fire Department; Boothbay Harbor Fire Department, Bristol Fire & Rescue; Edgecomb Fire Department; Newcastle Fire Company Inc.; Southport Fire Department.

person is on fire either inside or outside a building, a vehicle fire (occupants trapped), a vehicle collision (on fire and occupants trapped), a sinking vehicle, a vehicle in floodwater and being threatened or trapped in wildfire.

C. Customizing the Protocols

Some stakeholders noted that protocols provide consistent pre-arrival and post-dispatch instructions for both EMD and EFD, but stated that local control of these instructions must be allowed. These stakeholders noted that some instructions, such as opening windows in a carbon monoxide (CO) alarm situation, make it difficult or impossible to determine if there was an elevated level of CO and where the source of the gas is coming from and create a more dangerous environment for first responders.²¹

The protocol vendor stated that protocols can be customized for individual agencies and call takers do not have to go through all the questions (e.g., questions do not have to be asked if the answer is obvious or offered spontaneously by the 911 caller) and questions can be prioritized so units may be dispatched immediately while the call taker is still asking questions and getting additional information for responders going to the scene.²²

D. Quality Assurance

The 911 surcharge does not pay for the call review (quality assurance programs) at the PSAPs. These costs have historically been the responsibility of the emergency communications centers. Most PSAPs assess towns for these PSAP services. A number of stakeholders raised concerns with the number of calls that are subject to quality assurance review and noted that this has resulted in the need for additional staffing. One stakeholder, supportive of the protocols, said he did not realize the impact that protocol adoption would have on agency staffing and thought the surcharge should be used to try to reduce this burden. Some stakeholders expressed concerns about finding people to take dispatcher positions noting they often work nights, weekends and holidays and stated that the protocols, and concerns about not strictly adhering to the protocols, add stress to an already stressful job.²³

When EFD was implemented, some quality assurance review of calls was provided by the protocol vendor. The protocol vendor reviewed a certain number of calls and sent the results back to the PSAPs so they could provide feedback to their call takers. Some stakeholders noted that they found this assistance to be unbiased, very helpful in understanding the protocols and a great resource. Some stakeholders indicated that they would be interested in this assistance if it were again offered by the State. However, another stakeholder did not find it helpful stating that the communication was not great and that the protocol vendor was not aware of local issues. One stakeholder stated that even if this service was provided by the State, centers still have to get the results back, talk with staff

²¹Id.

²² See Priority Dispatch Comments.

²³ See, e.g., Comments of the Scarborough Public Safety; Scarborough Police Department; York Communications Center; Scarborough ECC.

and understand the feedback so outsourcing this service to the protocol vendor would not necessarily save agencies much work. The Bureau contacted the protocol vendor to obtain a quote to outsource the quality assurance review of calls to the protocol vendor. The quote is based on the vendor's new reduced call review standard,²⁴ which reduces the number of calls that are required to be reviewed, and assumes a PSAP is doing two of the protocols. The quote is \$692,640.00 per year.

Other stakeholders suggested having the Bureau provide financial assistance directly to centers for their own internal quality assurance review. Another stakeholder supported the idea of quality assurance being run by the Bureau. The Commission notes that this could not be done within existing resources as the Commission is not a public safety agency and does not have the necessary expertise to perform the quality assistance review. The Commission's expertise is in managing and operating the 911 system and training dispatchers to handle emergency calls.

Another stakeholder stated that Maine's 911 surcharge is very low and could be higher to provide some of the assistance stakeholders were discussing. During the 2019 legislative session, the Legislature amended the 911 surcharge statute. The 911 statutory surcharge had been 45 cents. The legislation enacted last session lowered the surcharge amount to 35 cents and gave the Commission the discretion to establish the surcharge amount, not to exceed that 35 cents, by routine technical rules or other Commission proceeding beginning January 1, 2020.²⁵ On September 24, the Commission opened an investigation and proposed setting the surcharge at the statutory maximum of 35 cents.²⁶ The Commission noted that the 35 cents would generate approximately \$6.8 million annually and the 2020 and 2021 budgets for the Bureau are approximately \$7.4 million. As a result, even when setting the surcharge at the statutory maximum, the Commission expects that the Bureau will operate at a significant deficit. This investigation is pending.

Stakeholders overwhelmingly recommended that the 911 surcharge provide some financial support for the quality assurance call review at the PSAPs.

E. CAD Interface

The 911 surcharge does not pay for the computer aided dispatch (CAD) interface which matches the responses to protocol questions asked by the 911 dispatcher with the corresponding fields within the CAD.²⁷ CAD is a system provided by the emergency communications center, not the Bureau, and is utilized by dispatchers to record

²⁴<https://www.emergencydispatch.org/index.php?q=AccredCalculator>

²⁵ P.L. 2019, c. 343, Part SSSS.

²⁶ *MPUC Investigation to Set the E911 Surcharge*, Docket 2019-00233, Notice of Investigation (Sept. 24, 2019).

²⁷ This issue was discussed at the Legislature prior to enactment of the law which required fire protocols in Maine (P.L. 2015, c. 230). The Commission informed the Committee, at that time, that the Bureau does not pay for CAD interface with respect to EMD protocols and does not have information to accurately quantify the cost of providing it to all Maine PSAPs. The Commission clarified with the Legislature that the Bureau, with respect to EFD, was authorized to pay the same expenses that it pays for EMD protocols which does not include the CAD interface. This was discussed in the January 2019 Police Protocols Report the Commission submitted to the Legislature during the 2019 session.

information from the public and field responders, track resources, store pertinent information files or lists and disseminate information to field responders. Priority Dispatch Corporation also certifies CAD systems for use with its products. If a CAD system has been certified by the protocol vendor, it ensures that the protocol software functions optimally. The Commission notes that not all CAD systems in use in Maine are certified by the protocol vendor.

As the Commission discussed in its January 2019 Police Protocols Report, the Commission does not have information on the costs to provide the CAD interface. CAD interfaces are not provided by the protocol vendor. They are instead purchased from a variety of CAD vendors utilized by the PSAPs and each interface has its own specific cost structure. The Commission again sought cost information regarding the CAD interface from stakeholders as part of this process. Oxford RCC provided information stating the CAD interface cost for all three protocols for a four position PSAP is \$15,000 with an annual cost to maintain it of approximately \$1,500.²⁸ Hancock RCC provided information that its cost for the fire protocol was \$2,476.00 and that its annual maintenance costs for two protocols (EMD and EFD) for a three position PSAP is \$1,215.24.²⁹

F. Dispatch-only Centers

One stakeholder supported the use of the 911 surcharge for PSAPs but does not support using the surcharge for dispatch only centers.³⁰ Current law provides that the protocol requirement and use of the 911 surcharge to help implement the protocols applies to PSAPs.³¹ Historically, the 911 surcharge has not funded costs of dispatch only centers. A statutory change would be necessary to provide 911 surcharge revenues to dispatch only centers to assist them with protocol implementation.

G. Potential Adoption of Police Protocols and Whether the Protocols Should be Voluntary or Mandatory

Police calls are the bulk of all 911 calls. Stakeholders stated that EPD calls are very different from EMD or EFD and involve very fluid situations that may change quickly. Some stakeholders stated that more time was needed to acclimate to, or get proficient in, EFD, assuming EFD continues to be required in Maine, before moving to require EPD. Another stakeholder stated they have not seen any evidence that a problem exists with the current

²⁸ See Oxford RCC Comments.

²⁹ See Hancock County RCC Comments.

³⁰ See TAM Comments.

³¹ "To assist *public safety answering points* in the adoption and implementation of standardized dispatch protocols for answering fire 911 calls, the bureau shall use up to 5¢ of each surcharge collected under subsections 1-E and 1-F to provide *PSAPs* dispatcher training consistent with the protocols, necessary software and printed support materials. The Bureau shall provide quality assurance training and software to assist *PSAPs* in ensuring compliance with the protocols..." P.L. 2015, c. 230, codified at 25 M.R.S. § 2917(3-C) (*emphasis added*). Unallocated language in P.L. 2015, c. 230 goes on to state: Sec. 2. Protocol phase-in. [The] Bureau shall phase in over a 3-year period the required adoption and implementation of the standardized dispatch protocols for answering fire 911 calls by all *PSAPs*...In developing criteria...to phase in...the Bureau shall seek input from the management of all *PSAPs*. P.L. 2015, c. 230 (*emphasis added*).

management of police related emergency calls and that mandating standardized police protocols is unwarranted in the absence of any demonstrated issue. Stakeholders overwhelmingly opposed implementation of EPD at least at this time.³²

H. Unfunded Mandate

As discussed in the January 2019 Police Protocols Report, stakeholders, in the past, have raised concerns about costs associated with the implementation of standardized dispatch protocols, stating that these are mandatory costs imposed on municipalities without reimbursement and are, therefore, an unfunded mandate. MMA filed comments in this proceeding asserting that the law requiring EFD in Maine, P.L. 2015, c. 230, was not enacted in accordance with Maine's mandate law and as a result, local units of government such as dispatch only centers and PSAPs are not required to engage in the mandate activities until or unless the State provides funding equal to or greater than 90 percent of the costs of the mandates resulting from the law.³³ A number of other stakeholders raised the unfunded mandate issue in their comments.³⁴

V. **BUREAU RECOMMENDATIONS AND STAKEHOLDER RECOMMENDATIONS**

A. Bureau Recommendations

During the stakeholder meetings, the Bureau presented two suggestions to the stakeholder group that would not require additional State financial support.

1. Reduce the Number of Calls Subject to Quality Assurance Review

First, the Bureau noted that the protocol vendor's new call review standard, if adopted in Maine, would significantly reduce the number of calls subject to quality review at the PSAPs. Generally, the new standard would reduce the number of calls that need to be reviewed by almost 40 percent assuming the center is utilizing both

³² See, e.g., Comments of the Penobscot RCC, Maine Fire Chiefs' Association, Scarborough Fire Department, Hancock RCC, Scarborough Police Department, Scarborough ECC, Falmouth Police Department, York Fire Department, and Waterville Police Department. As part of its comments, the Waterville Police Department states that "the Waterville Police Department and the Waterville [RCC] oppose the recommendation by the PUC to implement Police Protocols in dispatch centers." The law that required fire protocols in Maine, P.L. 2015, c. 230, directed the Commission to provide a report to the Legislature with some specific information related to police protocols (cost to adopt and implement police protocols; time to phase in police protocols based on available funding from the 911 surcharge; whether there should be a certification and licensing requirement for all standardized dispatch protocols; and recommendations to ensure the efficient and effective oversight of the protocols). In that report, the January 2019 Police Protocols Report, the Commission noted that the question of whether standardized police protocols for 911 police calls should be required in Maine was a policy call for the Legislature." Last session, the Legislature directed the Commission to convene this stakeholder group and report back to the Legislature with stakeholder recommendations regarding standardized dispatch protocol requirements and use of the 911 fund to cover costs of protocol implementation by November 1, 2019.

³³ See MMA Comments.

³⁴ See, e.g., Comments of the Waterville Police Department; Scarborough Police Department; Maine Fire Chiefs' Association; Falmouth Police Department; York Fire Department.

EMD and EFD. The new standard, which reduces the minimum number of calls subject to quality review, was recommended by the IAED, has been scientifically validated and still provides an accurate indication of agency performance. To implement the new standard in Maine, the Commission would need to amend its fire protocols rule³⁵ and DPS EMS would need to change its emergency medical dispatch priority reference system policy, both of which specify the number of calls subject to quality assurance review. Both the Bureau and EMS supported making this change and stakeholders agreed that this would be helpful to them. The Commission notes that while this is expected to help agencies address the staffing concern raised, it will not eliminate that concern. On September 24, the Commission opened a rulemaking proceeding to reduce the number of fire calls subject to quality assurance review.³⁶ This rulemaking proceeding is pending.

2. Additional Implementation Support

The Bureau also noted that, in conjunction with the protocol vendor, it could provide more implementation support, which would include customizing the protocols for local issues at the PSAPs and dispatch only centers that have adopted protocols. Stakeholders supported this recommendation and the Bureau has begun offering additional protocol implementation support to centers.

B. Stakeholder Recommendations

During the stakeholder meetings a number of recommendations were discussed.

1. Recommendations Regarding Fire Protocols

There was not a consensus among the stakeholders on recommendations regarding fire protocols. Some supported more help implementing the fire protocols and allowing more time to deal with the growing pains, noting that there were similar difficulties when the medical protocols were implemented. The majority of those who participated in the stakeholder group either had concerns about fire protocols or do not believe fire protocols should be required or mandated in Maine at all and stated that the State should remove the requirement for fire protocols.

2. Provide Financial Assistance for Quality Assurance Review

Stakeholders overwhelmingly recommended that the 911 surcharge provide some financial support for the quality assurance call review at the PSAPs. This could occur a number of different ways as discussed earlier in the report: outsource the quality review to the protocol vendor, have the Bureau provide financial assistance directly to PSAPs, or have the Bureau perform the quality assurance review. Title 25, Section 2927 would need to be amended to provide statutory authorization for this purpose.

³⁵ MPUC Chapter 5: Standards for the Implementation and Administration of Emergency fire Dispatch Protocols.

³⁶ *MPUC Amendments to Emergency Fire Dispatch Protocols Rule (Chapter 5)*, Docket 2019-00243, Notice of Rulemaking (Sept. 30, 2019).

3. Provide Financial Assistance for CAD Interface

A number of stakeholders recommended that the 911 surcharge provide some financial support for the CAD interface (initial cost and annual maintenance costs). Title 25, Section 2927 would need to be amended to provide statutory authorization for this purpose.

4. Stakeholders Do Not Support Moving Forward with Police Protocols at This Time and Do Not Support Voluntary Adoption of the Protocols.

The Resolve also asked stakeholders to discuss the potential future implementation of standardized dispatch protocols for police 911 calls on a mandatory or voluntary basis. Stakeholders unanimously do not support moving forward with police protocols at this time. Some stakeholders believe more time is needed for centers to acclimate to, or get proficient in, EFD, assuming fire protocols continue to be required in Maine, before requiring police protocols. In addition, stakeholders did not support protocols being voluntary as they thought this would be confusing and hard to implement.



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August 12, 2019

Maine Public Utilities Commission
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Re: Docket No. 2019-00159

Please accept this letter as a comment of the Maine Municipal Association (MMA) on the Commission Inquiry Related to a 911 Standardized Dispatch Protocols Stakeholder Process and Report Pursuant to Resolves 2019, c. 24.

This comment is compelled by statements at this Inquiry's first meeting, on July 31st. At the meeting, several new activities resulting from the E-911 fire-related call quality protocols implemented by Public Law 2015, chapter 230, were repeatedly referenced as mandates. While the Association entirely agrees this Act has imposed new state mandates, attention must be drawn to the fact that local units of governments are only required to comply with mandates that are enacted in accordance with Maine law.

The following analysis is provided in an effort to help all stakeholders ascertain the extent to which public E-911 entities and employees are required by law to engage in activities directed pursuant to P.L. 2015, ch. 230. It reiterates many of the points made in MMA's comment on this matter in Commission Docket No. 2016-00063.

Mandate Law

Title 30-A, section 5685 governs mandates. Subsection 2 reads,

The State may not impose a mandate on a local unit of government unless the State provides annually at least 90% of the funding for those expenditures from state funds ... The Legislature may impose a mandate on a local unit of government without providing 90% funding as an exception to the provisions of the Constitution of Maine, Article IX, Section 21 if enacted upon the votes of 2/3 of all members elected to the Senate and the House of Representatives.

Subsection 1(B) defines "local unit of government" to mean a city, town, plantation, county, or governmental entity other than a state agency that was established by the Legislature to provide public services, is governed by a locally elected or locally appointed body, and is funded by local revenues like property taxes.

Subsection 1(C) defines "mandate" to mean,

Any law, rule or executive order of this State enacted, adopted or issued after November 23, 1992 that requires a local unit of government to expand or modify that unit's activity so as to necessitate additional expenditures from that unit's local revenues. "Mandate" includes laws, rules or executive orders that primarily affect the performance of a local unit's governmental activities.

Additionally, subsection 3(F) provides,

Legislation, even though enacted by a 2/3 vote of each House of the Legislature, may not be construed to override the funding requirements of the Constitution of Maine, Article IX, Section 21, unless the legislation contains specific language indicating that it is the intent of the Legislature to create an exception to the Constitution of Maine.

Last, subsection 4 states, "A local unit of government is not bound by any mandate unless funded or exempted from state funding in accordance with this section and the Constitution of Maine, Article IX, Section 21."

Analysis

Under Title 30-A, §5685, the first question is whether the quality-related activities under examination in this Inquiry are in fact mandates. The definition in subsection 1(C) cited above imposes a two-part test.

In MMA's view, the first part of this test – whether state government is requiring one or more local or regional government entities to expand or modify their activities – is clearly met. The numerous activities related to quality assurance and quality improvement were not imposed by law or rule for fire-related calls prior to the enactment of P.L. 2015, ch. 230. Moreover, at least some of the entities subject to this Inquiry – E-911 dispatchers and associated employees in Emergency Fire Dispatch Agencies (EFDAs), Public Safety Answering Points (PSAPs), and the state-run Regional Communications Centers (RCCs) – are local units of government. Based on the definition in Title 30-A, §5685(1)(B), MMA believes the EFDAs and PSAPs would qualify as local units of government, while the RCCs would not.

The second part of the test is whether the required activity necessitates additional expenditures from local level resources. Comments of stakeholders of record in this matter convey the fact that the Act has created substantial new costs for EFDAs and PSAPs. As the bill was being worked, there was some confusion among stakeholders as to whether the state would be covering the costs associated with this new law. In the Association's recollection, the Bureau publicly informed the legislative committee of jurisdiction that its read of the law allowed state compensation to PSAPs, but not to EFDAs. With respect to the EFDAs, there is now no question; the state is not covering the new costs, which means new costs incurred must be covered by local sources of revenue. It appears PSAPs have also experienced new financial burdens as a result of this law, and it is not known to MMA whether the Bureau is reimbursing at least 90% of the expenses.

After establishing that these quality assurance and improvement related activities meet the state definition of a mandate, the second question is whether the state is providing annually at least 90% of the funding to the EFDAs and PSAPs for the mandated activities. Comments made in this docket by stakeholders to date appear to indicate the state is not providing any funds, or at least far short of 90% of the funding, to EFDAs. The Commission's Emergency Services Communications Bureau (Bureau) appears to be providing some funding to PSAPs. As noted above, MMA does not know whether the funding provided to PSAPs meets the 90% mark.

For the EFDAs, and potentially for the PSAPs if they are receiving less than 90% reimbursement, the third question is whether the Legislature followed the requirement in subsection 3(F), for the bill enacting the mandates (LD 1256 in the 127th Legislature) to contain specific language indicating the intent of the Legislature to create an exception to the Constitutional requirement to fund new mandates. In practice, this language is inserted as a "mandate preamble." The preamble is standard language printed at the top of mandate bills in order to call legislators' attention to the fact they are voting to impose an unfunded mandate on local governments. It reads,

Mandate preamble. This measure requires one or more local units of government to expand or modify activities so as to necessitate additional expenditures from local revenues but does not provide funding for at least 90% of those expenditures. Pursuant to the Constitution of Maine, Article IX, Section 21, 2/3 of all of the members elected to each House have determined it necessary to enact this measure.

The text of LD 1256 did not include the mandate preamble and was therefore not enacted in accordance with Maine law. Under Title 30-A, §5685(4), local units of government such as EFDAs and PSAPs are not legally obligated to comply with improperly enacted mandates in the absence of state funding equal to or greater than 90% of the costs resulting from the law.

Conclusion

P.L. 2015, ch. 230 was not enacted with a mandate preamble and a 2/3 vote held for the purpose of overriding the requirements of Maine's mandate law. For these reasons and the related reasons state above, MMA believes P.L. 2015, ch. 230 did not enact its mandated activities in accordance with Maine law, and as a result, under Title 30-A, §5685(4), local units of government such as EFDAs and PSAPs are not required to engage in the mandate activities, until or unless the state provides funding equal to or greater than 90% of the costs of the new mandates resulting from this law's enactment.

Thank you for this opportunity to submit comments. If you have any questions regarding this submission, I may be reached at gcorbin@memun.org or at (207) 623-8428. I also intend to attend the next meeting in this Inquiry, on August 16th.

Sincerely,

Garrett Corbin
Legislative Advocate
Maine Municipal Association

Maine Public Utilities Commission
18 State House Station
Augusta, Maine 04333-0018

Docket No. 2019-00159

My name is Shivon McAfee and I am a public safety dispatcher for the York Police Department. I am certified in EMD and EFD and have been working with these protocols off and on since 2002, at several different departments, including the York County Sherriff's Department from 2002-2003, Cumberland County, North Carolina Emergency Services from 2006-2007, and the York Police Department from 2017 to present.

I would like to express my disagreement with the mandatory statewide implementation of said protocols by the state of Maine. Having worked in the aforementioned centers, I understand well, the type of communities and agencies where these protocols are truly meant to function. Based on this firsthand knowledge and experience, I believe that while the protocols themselves can certainly be considered a helpful tool as needed, if they are mandated through the Maine state legislature and forced upon every agency and jurisdiction, they will become a hindrance to the services that a number of centers currently provide to their citizens.

While these protocols may help larger centers with a horizontal dispatch model function more efficiently, that is not the case for the centers of a more modest size with vertical dispatch such as the one in which I currently work. Even Jeff Clawson, the creator of the protocols in question, admits in an article from his own publication, the Journal of Emergency Dispatch, that "'vertical' dispatching...is less effective for EMDs using priority dispatch protocols." Because the state has multiple centers that operate under this model, a mandate would be, in effect, knowingly imposing a disadvantage on the communities served by such centers.

Additionally, EFD protocols and even some EMD protocols are awkward and cumbersome, but because they are mandated, we are forced to ask questions that may not fit the scenario. If we use our discretion to skip any questions or even reword them, a record is made of our "non-compliance," putting the front line dispatchers in a moral dilemma of whether to provide what they know is the best service to the caller, or to be seen as "compliant" in the eyes of their employer.

Additionally, the "push point," which is the protocol's suggested point of dispatch, does not direct us send help as quickly as our current method allows. If the protocol is followed, this causes a delay in our field unit response. Many details may need to be gathered before a "determinant code" is produced, which Priority Dispatch assumes will be relayed to responding units upon initial dispatch. This is another failing of the mandate. Our field units do not receive this code upon dispatch because they are not trained in what the codes mean, and therefore to

not have specifically assigned apparatus responding based on those codes, which priority dispatch also assumes is an implementation of their program.

For example, without the protocols, if a call for a motor vehicle crash is received, the dispatcher is able to determine the need for police, fire, and ambulance response IMMEDIATELY after obtaining the location and callback number, and dispatch all three services if necessary. If the protocols are followed, even for a fender bender with unknown injury, several other questions that have no bearing on which services are responding must be asked prior to "are there any injuries?" These questions cause a delay, which the callers can sense, even if they are told that "help is on the way."

I personally have never been considered incompetent or called a moron until these mandatory protocols were implemented. But again, I had "compliance" on my mind instead of customer service. Instead of thinking "what is the best way to help this caller?" I find myself thinking, "will I be docked for asking/not asking/rephrasing this question?" Local control could shift the focus back to the caller/patient/victim, where it belongs.

It has been said that if agencies would like to make exceptions for what protocols are used, that they may. If that is the case, I have to ask myself, then what is the purpose of a state mandate? Who is benefitting from the statewide implementation of these protocols? As far as my own center, I observe callers who are not any better served by the EFD protocols or the even some EMD protocols that provide no pre-arrival instructions. Dispatchers are not benefitting from the protocols as they are torn between serving their customer and performing to the state standards, causing more stress than we already take on under normal circumstances. Responding field units, in the case of my department and a number of others, are not benefitting from this protocol because they are not trained in it and do not understand the delay in dispatch. Furthermore, they do not understand the determinant codes or use them to determine their response. Who is left to benefit from these protocols being mandated statewide? I encourage the committee to follow the money and ask themselves what the biggest proponents of this mandate have to gain from it.

In conclusion I must implore the legislature not to paint all of Maine's public safety agencies with the same broad brush, and to strongly consider allowing them to have LOCAL CONTROL of the EFD and EPD protocols. In doing so, we may then implement the program in a way that will truly benefit the individual communities we serve, instead of enforcing a blanket policy that would present many disadvantages to a significant portion of our states' citizens and public safety workers.

Respectfully Submitted,

Shivon McAfee
Emergency Communications Specialist
York Communications Center



Scarborough Fire Department

B. Michael Thurlow, Fire Chief

8/20/2019

Maine Public Utilities Commission
18 State House Station
Augusta, ME 04333-0018

RE: Docket No. 2019-00159

Please accept this letter as my personal and professional testimony regarding the Commission's Inquiry Related to a 911 Standardized Dispatch Protocols Stakeholder Process and Report Pursuant to Resolves 2019, c. 24.

As a 43 year veteran of the Scarborough Fire Department who has served as Fire Chief for the past 18 years, I have a keen interest, history, and perspective on public safety dispatch issues. In my role as Fire Chief I jointly manage the Scarborough Public Safety Communications Center with my good friend and professional colleague Police Chief Robert Moulton. Between us we have well over 80 years of public safety experience, and over 40 years of chief level experience managing a combined police-fire-EMS communications center, long before the advent of 911 in Maine. Additionally I am an active member of the Maine Fire Chiefs' Association Board of Directors, and a member of the 911 Advisory Council.

Unfortunately I was unable to attend the two public hearings that were held on July 31 and August 22 of this year regarding this PUC inquiry of this matter, but wanted to provide my testimony in writing. It is my opinion that the PUC and Maine Legislature should reverse the previous decision to force mandatory use of the Emergency Fire Dispatch (EFD) Protocols, and to recommend that the State does not pursue the implementation of Emergency Police Dispatch (EPD) Protocols by the state's PSAPs.

As a member of the 911 Advisory Council I believe it is essential that the 911 Council, ESCB, PUC, and Maine Legislature all listen to the first responder community that delivers these critical services to the citizens of Maine. There are collectively hundreds of years of experienced Police Chiefs and other law enforcement professionals who have clearly voiced their nearly unanimous opposition to instituting EPD. Similarly the Maine Fire Chiefs' Association voted twice, not to support mandatory implementation of the EFD protocols, yet the Bureau did so anyway without their support. It is time to listen to the experts in the field instead of a very small group of advocates, some of whom have a long history of directly benefiting financially from their relationship with the Priority Dispatch product and company.

There is hardly a week that goes by when I or a member of our organization doesn't hear extreme frustration and negative feedback from the citizens we serve about having to answer too many questions before help arrives. The protocols have delayed the timely processing and dispatching of first responders because most of the centers in Maine are not staffed to use the protocols as designed with dedicated call-

takers. In most centers the same person has to juggle answering 911 calls, non-911 calls, and multiple radio frequencies while also dispatching the appropriate resources. The protocols were designed for large urban centers with dedicated call-takers to triage calls so that low acuity events could be stacked, or held for dispatch at a later time when resources are available. Most PSAPs in Maine aren't structured, and don't operate like that. Nearly every request for fire and EMS service is dispatched when the call is processed, even if it requires the use of mutual aid resources from a neighboring community.

I am a proponent of Emergency Medical Dispatch (EMD). That program also causes delays and frustration with the public, but I can rationalize and defend that reality with the fact that we have documented saves locally, and across the nation, where pre-arrival CPR, choking, childbirth, and other instructions have actually saved lives. I don't see that same level of benefit from EFD or EPD.

In my opinion the State should maintain EMD, but they should financially fully support the cost of Training and Quality Assurance for that program. Currently those costs are shifted from the State 911 system to the local taxpayers in the communities hosting PSAPs. Each of those PSAPs is required to pay for hundreds of hours of personnel time annually (most often at overtime rates) to either attend certification classes while off duty, or for the backfill coverage of their position at the center when on duty. Hundreds of additional hours are spent reviewing cases, mentoring peers, and processing Q/A reports. All of those costs are borne by the local property taxpayers even though a large percentage of the 911 calls we answer are from non-residents, commuters, and others who find themselves within our 911 catchment area.

I very much concur with the formal testimony of the MMA that these are clearly unfunded mandates on the local communities and their property taxpayers that should be reimbursed by the State's 911 Surcharge Fund for those training and Q/A costs. If the State helped pay for these costs, which are critical for the success of the EMD program, centers would be better able to provide resources for call-takers which would help improve some of the delays in call processing and the frustration felt by those calling for help.

EFD and EPD in my opinion are expensive and unnecessary solutions to problems that do not currently exist. I urge the PUC, ESCB, and Legislature to discontinue the mandate to use EFD, to discontinue any further efforts to implement EPD, and to authorize the ESCB to expand the use of 911 surcharge funds to properly cover the local costs of training and the Q/A program so that burden is no longer borne entirely by the local community's property taxpayers.

Sincerely,



B. Michael Thurlow, Fire Chief

August 30, 2019

MAINE PUBLIC UTILITIES COMMISSION
Notice of Inquiry Related to a 911 Standardized
Dispatch Protocols Stakeholder Process and
Report Pursuant to Resolves 2019, c. 24

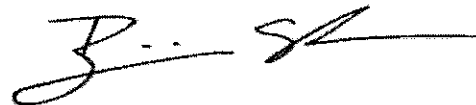
COMMENTS

The Telecommunications Association of Maine (TAM) offers the following comments in the above captioned proceeding.

As TAM noted during the July 31, 2019, meeting in this proceeding, the funds currently supporting the E-911 network are derived from surcharges on telephone customer bills. Those surcharges were assessed for the very specific purpose of supporting the activities of authorized Public Safety Answering Points (PSAPs) operated pursuant to Chapter 352 of Title 25 of the Maine Revised Statutes (hereinafter "Chapter 352"). Those surcharges were gathered on a statewide basis to support a statewide program. It would be inappropriate, and contrary to statute, to utilize those funds to support any costs or activities of locations that are not a PSAP subject to the Rules of the Emergency Services Communication Bureau (ESCB) developed pursuant to 25 MRSA § 2926(3). A municipality certainly has authority to expend its own resources to maintain its own dispatching service, but no municipality has the authority to force customers who are citizens of a different municipality and who had no ability to vote on the municipal budget or otherwise have any say regarding the operations of the local dispatch center to pay to support that individual municipality's choice. There is currently a grant program to assist dispatch-only centers to merge into a PSAP. Once a dispatch center becomes part of the ESCB designed system pursuant to Chapter 352, then those costs can and would be appropriately supported through the E-9-1-1 surcharge. Until that occurs, dispatch-only centers, and other municipal entities that are not part of a PSAP under Chapter 352, should not receive any surcharge funds.

With that said, TAM agrees with the Maine Municipal Association (MMA) argument that unfunded mandates on local centers are not legally valid and as such those local dispatch locations should not be required to comply with any obligations that were not adopted in accordance with the State Constitution. Any mandate on PSAPs is within the scope of the program developed under Chapter 352 and should be eligible for funding through the surcharge.

Respectfully Submitted,



Benjamin Sanborn, Esq.,
Telecommunications Association of Maine
P.O. Box 5347
Augusta, ME 04330
Tel: (207) 314-2609
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Hancock County Regional Communication Center

50 State Street Suite 13
Ellsworth, Maine 04605
Phone (207) 667-8866
Fax (207)667-4865



Maine Public Utilities Commission
18 State House Station
Augusta, Maine 04333-0018

Case 2019-00159

COMMISSION INITIATED INQUIRY RELATED TO A 911 STANDARDIZED DISPATCH PROTOCOLS STAKEHOLDER PROCESS REPORT PURSUANT TO RESOLVES 2019, C. 24

The Hancock County Regional Communications Center appreciates the Public Utilities Commission's efforts in hosting the Stakeholders Meetings in July and August with the various agencies and representatives from Priority Dispatch. The Hancock County Regional Communications Center submits the following input for this notice:

The Hancock County RCC is a small center with staff of eight personnel who directly dispatch three police agencies, five EMS agencies and twenty five fire departments. Our agency also provides overnight dispatching service for the City of Ellsworth Police and Fire Departments. The Hancock County RCC currently performs Emergency Fire Dispatch protocols for six additional fire departments and EMD for sixteen communities who are covered by private EMS services employing their own dispatch centers. There are five full time stand-alone municipal dispatch centers that provide local fire, police and EMS dispatching for which we also currently perform EMD and EFD prior to call transfer.

With the implementation of EFD in 2018, our agency experienced a 30% increase in call volume that required processing by our PSAP staff before transfer to non-EFD dispatch centers.

The Hancock County RCC incurred the cost of \$2476.00 to turn on the ProQA Spillman CAD interface with future annual "maintenance fees" of \$324. The interface was essential for timely dispatching with our Spillman CAD, as all of our county dispatch agencies are connected to it as users. These costs were unplanned and without reimbursement.

The inability to transfer these calls directly has resulted in less information being immediately available to our stand-alone fire departments. We are connected by a common CAD and the stand-alone agencies see their calls being started on their screens by the PSAP. The information that is provided by ProQA to the CAD is often extremely limited, and confusing to responders. Several of these have full time staff responding with less than optimal information. None of our fire agencies are using the often confusing determinant codes for their response. In most cases our departments are staffed by volunteers with limited resources that make determinant codes irrelevant. Their responses are based on personnel availability, not a code.

To meet the current QA requirements for both EMD and EFD, our agency developed a dedicated QA Dispatcher position to reduce costs. Our current QA budget for 2019 is \$44,500 for one position at "straight time". Fortunately we have been able to use this dispatcher at the desk for a portion of most week days. As other agencies have testified, our QA requirements are unfunded mandates. If we had not done this, our QA costs would be paid at an overtime rate, making it more costly to comply. The proposed QA matrix change only reduces our QA burden by 24 calls to be reviewed. While appreciated, this would be a minimal reduction in the overall cost of QA for our agency.

None of the law enforcement agencies in Hancock County including the Sheriff's Department and the chiefs of our seven municipal Police Departments are in favor of adoption of the Emergency Police Protocols. Five of these agencies have their own stand alone dispatch centers. One city police chief has stated if the EPD protocols are adopted he will close his stand alone dispatch center which will greatly increase our PSAP's work load above and beyond call taking. The cost of additional staff would likely increase my operating budget by approximately 30% or more. That cost would be ultimately passed on to the other communities in our county, increasing their tax burden.

To integrate EPD ProQA into our Spillman CAD, we can expect additional costs for establishing and maintaining the interface as was done for EFD.

We recognize the spirit of the intent to provide consistent information gathering and may seem a next logical step at face value, however we are not in favor at this time. The majority of our stand alone agencies currently have little desire to be consolidated into our PSAP.

Ultimately the implementation of Emergency Police Dispatch Protocols will not make our PSAP more efficient, improve service, nor make our county safer for our citizens. The additional work load especially with the millions of visitors visiting or passing through Hancock County will be detrimental to our staff. The cost of employing the anticipated additional staff to simply process incoming all incoming calls prior to call transfer will be redundant in many cases and a burden to our taxpayers.

Thank you for the opportunity to provide commentaries on the issues we feel are important, and for your consideration of our concerns.

Respectfully,

Robert Conary

Robert Conary, Director
Hancock County Regional Communications Center



Quote and Purchase Addendum

Quoted Date: September 20, 2016 Quote Number: QUO-08953-K5W4W8
 Quote Expiration Date: December 31, 2016 Prepared By: Tyler Holland

Services Included

Included in Quote

- ProQA Police Interface
- ProQA Medical Interface
- ProQA Fire Interface

Package Quote
\$15,000

\$9,000 Due on October 17th, 2016
 \$6,000 Due on January 15th, 2017

Future Maintenance

- 2nd-year maintenance charges will begin 12 months from the date of contract execution listed below.
- Future maintenance is estimated for your planning purposes and is not included in this purchase.

2nd-year Maintenance Total: \$1,473


The Customer's signature below constitutes its agreement to purchase the licenses, products and/or services according to the terms quoted by Spillman within this document. This document shall serve as an addendum to the Purchase Agreement previously entered into between the Customer and Spillman. The terms and conditions of the Purchase Agreement, as well as the related License Agreement and Support Agreement, shall apply to the items quoted herein.

Oxford County Sheriff

Customer Name

Date

9/20/2016


 Authorized Signature

James P. Mickon, Director
 Print Name and Title



Quote and Purchase Addendum

Quoted Date:	September 20, 2016	Quote Number:	QUO-08953-K5W4W8
Quote Expiration Date:	December 31, 2016	Prepared By:	Tyler Holland

August 28th, 2019
Maine Public Utilities Commission
18 State House Station Augusta, ME
04333-0018

RE: Emergency Dispatch Protocol

Dear Commissioners,

My name is Jaime Higgins, and I am currently employed as a Crime Analyst with the Scarborough Police Department. I have worked for Scarborough Police Department for almost 18 years, nine of which I was a full-time Public Safety Dispatcher. When I was promoted to Crime Analyst I did stay part-time in the Communications Center.

I would like to share my concerns regarding the mandatory implication of both Fire and Police Dispatch Protocols being considered by this Commission.

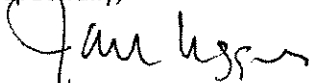
As a part-time Dispatcher I was unable to answer 911 calls or assist with medical emergency calls because EMD is not user-friendly to those who aren't using it on a regular basis. When EFD was implemented I attended the training, and then chose to resign from part-time Dispatch due to my strong beliefs that EMD and EFD were unnecessarily tying up a dispatcher's time, delaying arrival by emergency vehicles, taking away my (and my co-workers') ability to talk someone through an emergency without sounding like an emotionless robot, as well as use my training and experience to know what emergency apparatus should be dispatched to calls. I quickly became aware that Dispatchers were overly concerned with following the script due to calls being scored, rather than using common sense and the valuable knowledge they have developed over the years.

I feel strongly that EMD, EFD, and especially EPD do not belong in Maine. We are smaller communities with quicker response times than the big cities these programs were developed for. Here in Scarborough, our response times are quick. Units often arrive on scene before EMD can be completed. People in Maine tend to expect a more personable experience when calling for assistance. On many occasions I have heard people in our community complain about the EMD and EFD questions as they don't feel the questions were relevant or helpful, or make the Dispatcher sound less caring. I believe EMD and EFD have contributed to less trust in our Dispatchers and a feeling of lower quality service.

Implementing yet another program, EPD, is only going to continue to add problems to this decline in service, wasting valuable time, delaying response, excessive training, and potentially putting lives at risk. I urge the Commission to reverse the mandatory implementation of the EMD, EFD, and EPD protocols, and allow each local agency to choose what works best for them.

Thank you for your time on this extremely important matter.

Respectfully,


Jaime Higgins

ROBERT A. MOULTON
CHIEF OF POLICE

B. MICHAEL THURLOW
FIRE CHIEF

TOWN OF SCARBOROUGH, MAINE
EMERGENCY COMMUNICATIONS CENTER

246 U.S. Route 1
Scarborough, Maine 04074
207-883-6361
207-730-4251 (fax)

August 30th, 2019
Maine Public Utilities Commission
18 State House Station
Augusta, ME 0433-0018
RE: Emergency Dispatch Protocol

Dear Commissioners,

My Name is Jay McAdams, I am a Lead Dispatcher for the Scarborough Emergency Communications Center. I began my career at the Sandoval County Regional Emergency Communications Center in New Mexico and have been with the Scarborough Center for the past six years.

I am using this platform to express my concerns to the members of the Public Utilities Commission over the enacted Fire Protocol Mandate and the proposed manatate of Police Protocols.

I believe the issue at hand comes down to one simple, yet often overlooked word.

Service.

Service is everything that we do. It is the compassion we show on the caller's worst day. It is the speed in which we send help to them. It is the quality of the information we provide to the personnel responding. It is the life saving instructions we give the caller to ensure they are calm, safe, and out of harm's way. Service is a dispatcher's calling, and it is where Scarborough Emergency Communications Center excels.

Mandating EFD has hurt this center's ability to provide excellent service. Adding an EPD mandate to the equation will surely cause a greater decline. The protocols are cumbersome and often time consuming. No two calls are the same, and there are far too many variables to smoothly capture every situation in a nice, clean, predetermined script.

The Police and Fire Protocols often require the call taker to ask seemingly unnecessary questions. It causes them to struggle to wade through the litany of protocol options and provide instructions that are not logical and don't seem to fit the situation. These factors can create anxiety for the caller, delay dispatch, and increase response time.

Dispatcher's serves several different groups including the citizens, the responders, and outside agencies. I cannot support a protocol system that jeopardizes the quality of the service provided to each of those groups. For a Lead Dispatcher, there is one more group, the Line Dispatcher. I cannot support a protocol system that jeopardizes the quality of service that this group is able to provide.

Instead of relying on a one size fits all scripted approach to police and fire dispatch, let's focus on training. Let's train our dispatchers to think on their feet, ask pertinent questions, and give the proper instructions. Let's empower them to make decisions based on their knowledge, training, and experience. Let's rely on the dispatchers to do their job and be beyond proficient. Speaking for the Scarborough Center, we have a group that is great at their jobs, respected by community members, responders, and by other agencies. Let's keep it that way.

Thank you for taking the time to consider my position on this important public safety matter. I trust this commission will take this and the other submissions into account and consider halting the implementation of the EPD mandate, and repealing the EFD mandate.

Respectfully Yours,

Jay McAdams
Lead Dispatcher
Scarborough ECC



COMMUNICATIONS



B. MICHAEL THURLOW
FIRE CHIEF

ROBERT A. MOULTON
CHIEF OF POLICE

TOWN OF SCARBOROUGH, MAINE
Emergency Communications Center
246 U.S. Route 1
Scarborough, Maine 04074
(207)883-6361
EMERGENCY DIAL 9-1-1

www.scarboroughpolice.com

August 27th, 2019
Maine Public Utilities Commission
18 State House Station
Augusta, ME 0433-0018
RE: Emergency Dispatch Protocol

Dear Commissioners,

My name is Joseph Thornton. I currently am employed as a Lead Dispatcher with the Scarborough Emergency Communications Center. I have been a public safety emergency dispatcher for over fifteen years, all with the same communities, including Scarborough, Old Orchard and Buxton. I currently hold college degrees up to and including a Master's Degree in law enforcement technologies, emergency management, government continuity, emergency telecommunications and public administration.

I would like to inform you, the controlling authority on public utilities including the emergency communications system, of my overwhelming concern regarding the mandatory implication of both Fire and Police Dispatch Protocols as presented and being considered by this commission.

While I do not question the protocols, the information contained within them, or their potential to provide lifesaving instructions to callers, I am certain that it will not provide any advantage to the call taker in the large majority of Communication Centers in Maine. The National Academy of Emergency Dispatch Mission Statement is: ""To advance and support the public-safety emergency telecommunications professional and ensure that citizens in need of emergency, health, and social services are matched safely, quickly, and effectively with the most appropriate resource." Furthermore; one of their stated goals is "To advocate a single, scientifically defensible protocol which becomes the unifying standard under which all professional emergency dispatchers practice." The fundamental conflict between these two statements, is that there is no possible, conceivable, or understandable way to develop a

single protocol that truly ensures that members of the communities we serve will receive the safest, quickest, and most appropriate resource. The only way this could be conceivable is if every individual community had the exact same resources to offer, for each single possible emergency situation. As an emergency dispatcher with fifteen years of experience in handling emergencies, I can honestly say I have never received the same call more than once. Each individual call for service is unique in a thousand different ways.

The National Academy also states as one of its goals and objectives is "To be recognized as the authoritative, independent voice that represents the emergency dispatcher and enhances the profession." It is my opinion that protocol is working in the opposite direction of the stated goal of advancing the profession. Emergency Telecommunications is a profession. One that takes years to master, and the abilities and skills of a dispatcher are never done improving. The implied need for strict scripted protocol takes away dispatch discretion, decision making, and makes the dispatcher simply a processor of calls. It streamlines the process of emergency call taking to an extreme level of repetitiveness, and separates the true skills of emergency dispatchers from the communities they serve. It has openly been said by supporters of protocol, that one of the best benefits of protocol implementation is the ability to increase their applicant pool, hire anyone for the job, send them away to a training class, then sit them in front of protocol, and have a working dispatcher. This training and approach to hiring our first line of first responders, the voice that is there to provide the lifeline to police, fire, ems, crisis workers, seems no different than the training offered to call takers in an outbound sales call center, and is in my opinion a dangerous side effect of protocol implementation, and certainly not in any way enhancing the profession.

It has been said publicly by supporters of protocol, that one desired goal, and reason for protocol, is that every call to 9-1-1 is answered and processed the same way. That you, as a citizen, will receive the same service in Kittery as you will in Fort Kent. Proponents seem to believe that this will increase caller trust in the process. Unfortunately, I think that goal has been achieved already, but with a clear decline in public trust in our system, and that will only continue to get worse with the implementation of police and fire protocol. For the first almost six or seven years of my career, callers simply seemed to trust the call taker more. The questions they were being asked were perceived as relevant, and the dispatchers were able to adapt to the situation and change questioning and use their skills and professionalism to better serve the caller. After implementation, it is clear to this call taker that callers are less comfortable, and easily frustrated with the questions they are being asked, and in the way they are being asked them.

Call processing times are clearly being effected. Dispatchers are focusing on compliance reports rather than focusing on the customer service aspect of call taking. Dispatchers are beginning to interact with the field responding units with frustration, because they cannot ask or gain the information the field units deem important for a specific call for service, with local knowledge that may change the importance of those questions. Individual centers have brought forward concerns about specific protocols, and are constantly being told they can opt out of using that specific protocol, or if determined locally by policy can change the protocol, or how it is implemented. This ultimately leads to the question of why can they not chose to opt out of the protocol completely, when they are certain they can better serve their communities without the protocol, and rely on the professional men and women they have entrusted these jobs to in the first place.

Ultimately, after equal time working as an emergency dispatcher pre, and post protocol implementation, I strongly encourage this commission to put faith in the public safety personnel

at the local level. Provide a standard protocol for local leadership to opt into. To evaluate their own level of service to the communities in which they operate and serve day in and day out. If that leadership chooses to implement the protocol, or to offer it as a guideline for dispatchers, a resource for them to lean on, or to abandon the protocol all together, it should be a decision that is left to the leaders who have been put in place by their communities to protect them. Have faith that the men and women in Maine answering 9-1-1 calls are the true professionals that they are, and allow them to use their skill, rather than a strict scripted pre-determined set of questions to serve the public.

This protocol is clearly designed for horizontal dispatch centers. While I may be mistaken, I only know of one PSAP in Maine that is attempting horizontal dispatching, and none that are doing it one hundred percent. Maine has vertical dispatching. The person answering the call, is the person dispatching the call. The creator and founder of the National Academy of Emergency Dispatch, Jeff Clawson, published in his own Journal of Emergency Dispatch that "vertical dispatching...is less effective for EMDs using priority dispatch protocols".

The creator of the protocols himself, many experienced communications professionals with nothing to gain but the honor of better serving their communities the best they know how, multiple experienced police and fire administrators from within Maine, and leaders from major communications centers across the United States, like Minneapolis Minnesota who recently abandoned the protocols after their 911 director stated "I truly believe people were hurt and possibly died because of this program", are all encouraging and informing this committee about the dangers, and downfalls of this protocol. I truly hope that with the information being shared with you from all these sources, you as a committee will not knowingly impose a disadvantage on the communities we are trying to serve.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Joseph Thornton". The signature is fluid and cursive, with a large loop at the end.

Joseph Thornton, MPA
Scarborough Public Safety
Emergency Communications Center
Lead Dispatcher

September 2, 2019

Maine Public Utilities Commission

18 State House Station

Augusta, ME 04333-0018

RE: Emergency Dispatch Protocols

Dear Commissioners,

I have been a Public Safety Dispatcher since 1982 when I started part-time in Cape Elizabeth, and have been a Full-time Dispatcher since 2006. Currently, I am one of the Lead Dispatchers at Scarborough Public Safety. I also have been in the fire service since 1974, first serving in Raymond, ME, and now serving as a call-company District Fire Chief in Scarborough.

During my time as a Raymond Firefighter in the late 1970's, we advanced from our original dispatch arrangement in volunteers homes and businesses to a professional full-time center with trained Fire-EMS Dispatchers. They were knowledgeable of the water-supply issues (there were no pressurized fire hydrants in town) and also of the increasing car crashes along busy Route 302. Although the system was not computerized and somewhat simplistic by today's standards, we gained better responses times and needed support from these professional dispatchers. I noted that they took great pride in their geographic and firefighting knowledge.

Moving forward to Scarborough's consolidated 911 Public Safety Center, we handle more than 50,000 calls for service a year. All dispatchers are trained to use the GIS, 911, and IAR mapping software to get help to the incident via the most efficient route. Sometimes it is getting the correct on-ramp to a Maine Turnpike crash, or the closest boat launch to the capsized vessel that makes a life or death difference. The Fire Department utilizes a complex mutual aid system to insure a rapid response to the incident regardless of the town or city borders. For police calls, we train our Dispatchers to gather and quickly disseminate suspect information, sometimes by using inter-agency CAD system suspect data. This data includes photos, associated vehicles, addresses and criminal associates. Scarborough's Public Safety Dispatchers use their experience, best practice, and common sense judgment to use call-taking time to gather and disseminate this critical information.

Years ago, Our Dispatch Center was mandated to use the Priority Dispatch EMD and EFD protocols. We experienced a much longer call processing time, and dispatchers are forced to ask scripted questions

that many times do not fit the situation. It is nearly impossible to access the above mentioned CAD system and mapping resources and use your available skill set while doing this.

It is my professional opinion that callers many times will be frustrated by the questioning sequence, and provide incorrect or even intentionally false information, thinking that answering the question with a worsening condition will stop the questioning and get help faster.

When a caller answers to- Is the patient alert, or breathing normally, they may state "NO! -ARE YOU SENDING HELPI?!" Or, to -is the fire threatening anything -"YES!, THE FIRE IS CLOSE TO A HOUSE! HURRY UP!!". In the EMD Protocol, this Yes or No answer causes the determinant code to change from a non-emergency ambulance call to an emergency response with a fire engine company and police car added. In the EFD Fire Protocol example, it may upgrade to a structure fire response with 6 fire suppression apparatus, plus EMS and incident command vehicles. The call-taker is not given a choice to re-question the caller to affirm an actual emergency exists. Many emergency responses are inappropriate for this reason.

In addition to the above issue, callers reporting an injury that resulted from a possible crime in progress are questioned in EMD about the injury while the suspect could escape, or may be hiding nearby as a threat to responders. Trained and experienced dispatchers employ skills to gather and disseminate information on complex calls far better than a computer generated script.

I could continue with examples ad-nauseum, but I feel that my 40+ years in public safety have afforded me the training and experience to offer this opinion. I strongly feel that call-taking computer programs are not helpful, delay a timely response, and inhibit the free flow of information to responders.

Respectfully,

Wesley A. Merritt

Lead Dispatcher

Scarborough Public Safety

246 US Route 1

Scarborough, ME 04074

Pro-QA EMD, EFD and EPD do we need it

As I sit here on midnight shift at Scarborough Public Safety Communications I am reminded of how easy it used to be 20 years ago when I first started in the Public Safety field. You see, I've been working for Scarborough as a Communications Dispatcher for the past 11 years, before that I worked for 9 years in Buxton as a Dispatcher at Buxton Public Safety. In these 20 years I've seen lots of changes and added stresses for me and my co-workers. I am writing to express my dislike/disapproval if you will of the State wide issuance of the EMD, EFD and possibly EPD protocols to all of the PSAPS and Dispatch centers.

I will agree the EMD protocols work in most cases as far as providing pre-arrival life-saving instructions in certain instances, but for the most part the at length questioning does not provide any type of comfort to the callers, it just frustrates them. We as call takers sound like pre-programmed robots (scripted salesmen, if you will). When you are reading through a set of protocols you are trying to be "compliant" so you don't get "dinged" by the QA person so there is no chance to show compassion or understanding for the caller, you just need to make sure you ask the questions as written in the correct order. This all adds to the stress of an already tense situation, and sometimes you can miss the information the caller is giving you because you are concentrating on getting the correct answer.

Moving on to EFD, as policy before we can start a truck to the scene of any type of incident we have to complete protocol questioning so we know what trucks are going to respond and if they are going to respond "hot or cold". This in my opinion causes a significant delay in response times and could mean life or death in cases of major incidents (structure fires, vehicle fires, mass casualty, etc). For example if I get a call for a structure fire using EFD protocol 69, I have to ask the following:

What's the address of the emergency?

What's the phone number you're calling from?

Okay, tell me exactly what happened.

What type of building is involved?

Are you at that location now?

Do you see flames or smoke?

How many floors or stories are there?

Are there people or animals trapped inside the building? How Many? Exactly where are they located?

If it's an actual structure fire you may have to ask each question more than once due to the caller being excited or upset, this could take 2-3 minutes to get through questioning (delaying response). When I first started as a dispatcher I worked alone covering Police for Buxton and Fire and EMS for Buxton and Hollis, if we got a call for a structure fire we got the location of the call, the phone number, made sure

everyone was out of the residence and we disconnected. Almost every time someone called about a structure fire they would give you any pertinent information (where the fire was coming from, how big the structure was, if there was people or animals inside) there was no need to ask a bunch of questions. Most information was given up in the first few seconds of the call. Being a QA person for our agency I hear it all the time, people will actually call in and tell you exactly what you need to hear at the beginning of the call but the call taker is worried about being compliant and will interrupt the caller and ask them what the address of the emergency is and the phone number that they are calling from. We could save so much time, energy and unneeded stress if we could actually listen to what our callers are saying and not listen for the answers we need to be "compliant"!!!

These are my thought and opinions use them how you may.

Signed an upset and slightly more stressed Public Safety Dispatcher

Michael Mains



PENOBSCOT COUNTY
REGIONAL COMMUNICATIONS CENTER

Bill Collins
County Administrator

Christopher J Lavoie
Director

Maine Public Utilities Commission
18 State House Station
Augusta, Maine 04333-0018

Case 2019-00159

Penobscot Regional Communications Center (PRCC) is one of the largest Public Safety Answering Points (PSAP) /Dispatch centers in the State. We provide dispatch services to 66 different Fire, Law and EMS agencies in Penobscot, Hancock and Aroostook Counties. PRCC provides 911 services to 219,610 people in an area of 10,385 square miles or 29% of the State of Maine. From 1/1/2019 until 9/1/2019 PRCC had taken 41,920 911 calls. We employ 31-line level Dispatcher/Call Takers and 5 administrators, 2 of which do our QA & keep track of training requirements set forth by the State of Maine.

In May of 2018 we took over the PSAP responsibilities for the City of Bangor which nearly doubled our 911 call volume. The leading reason as to why Bangor gave up their PSAPing responsibilities was because of the State mandated implementation of the EFD protocols and the added work that came along with it. Upon absorption of their calls we needed to hire an additional 6 personnel to cover the call volume. Bangor still has their own dispatch center, meaning we take the 911 calls EMD/EFD them, then transfer the caller to the City of Bangor so that they start resources to the scene.

In 2018 PRCC answered and processed 1,634 fire calls, which figures out to 2.85% of our overall call volume. That number is projected to increase to 2,801 fire calls in 2019, an increase of 71%, mostly because of the addition of Bangor. Prior to the implementation of EFD our average time to take and process a fire call was 2 minutes and 56 seconds. That number sky rocketed to 4 minutes and 28 seconds after the implementation, this figured out to an additional 29 hours, 49 minutes and 24 seconds of additional man hours spent on the phone.

In 2018 PRCC answered and processed 18,426 medical calls, which figures out to 18.77% of our overall call volume. That number is projected to increase to 21,694 medical calls in 2019 which is an increase of nearly 18%. Again, this is mostly in part of the addition of Bangor. It takes an average of 4 minutes and 55 seconds to process each medical call.

In 2018 PRCC answered and processed 76,962 law calls which is 78.38% of our overall call volume. In 2019 we are projected to take 92,638 law enforcement calls, which is over a 20% increase. As it stands now it takes an average of 2 minutes and 40 seconds to process a law call. We have no data at this point, according to the National Academy of Emergency Dispatch who is the vender/owner of the EMD, EFD and EPD Protocols, as to the length of time that it would take to process a law call, if EPD was mandated. If we used 1 minute and 32 seconds increase, which is what the increase was with fire, we are looking at an additional 2,362-man hours. On average an employee works 1,470 hours a year when figuring all time off the desk, not answering calls. The implementation of EPD would mean that we would have to add at least 2 more positions, or an additional \$121,222 to our budget.

EMD protocols have been around for a long time, these protocols have a proven history of saving lives time and time again. The protocols are well written and flow very nicely. Some of this may have to do with the fact that in the medical field the human body is somewhat predictable, and over the years the bugs have been worked out of the EMD system.

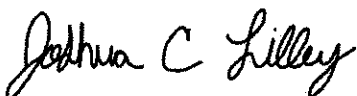
EFD protocols are relatively new and do not have the time proven history that the medical calls have. The fire protocols are hard to follow, don't flow and are cumbersome. For many years PRCC has trained our Dispatchers and Call Takers on how to handle fire calls efficiently, in a manner that is unique to geographical characteristics and fire department needs. These protocols are cookie cutter and imply that the largest cities and smallest towns operate in the same manner. In many ways, service to the public has diminished and service to our end users has been drastically slashed. It is also important for me to point out that prior to the implementation of the fire protocols, the Maine Fire Chiefs Association adamantly opposed. I also want to point out that within the County of Penobscot, not a single Fire Chief or Firefighter for that matter has expressed that they are happy with the use of the protocols, nor have the desire for us to continue using them.

Law incidents are the loins share of our call volume. With the lack of information surrounding the amount of time increase to process a law call, we cannot even begin to try and figure out how much staff we would need to add. At a time in which recruitment of Dispatchers is huge challenge across the State, it may not be possible to fill the positions, never mind the devastating financial impact this would have on our budgets. To this day we still haven't been able to fill all our vacancies which is contributing to worker burn-out and hampering our retention efforts. Any additional work load will most likely drive out more employees.

Based upon the facts stated above, Penobscot RCC is in hopes that the elected officials comprising the Energy, Utilities and Technology Committee recommend that Law Protocols not be mandated, Fire Protocols be repealed, and Medical Protocols remain as they are.

Penobscot RCC would also like to thank the Public Utilities Commission for hosting the Stakeholders Meeting's and compiling the data to make sure the best decisions are being made for the Citizens of the State of Maine. We would also like to thank Representative Riley for attending these meeting's and hearing first hand the testimony of those who use the protocols daily.

Respectfully,



Joshua C Lilley, Deputy Director
Penobscot Regional Communications Center

INTEGRITY * COMPASSION * PROFESSIONALISM * TEAM SPIRIT

97 Hammond Street, Bangor Maine 04401 • Phone 207 945-4636 • Fax 207 942-9431

Commissioners: Andre Cushing ~ Peter Baldacci ~ Laura Sanborn



RECEIVED

2019 OCT -1 A 8:57

MAINE PUBLIC
UTIL. COMM.

York Fire Department
1 Firehouse Drive York, Maine 03909

Maine Public Utilities Commission
18 State House Station
Augusta Maine 04333-0018
September 26, 2019

Dear Sir(s) or Madame,

Subject: Docket No. 2019-00159

Please consider the content of this memorandum as a professional opinion that should be highly considered relating to the Commission's Inquiry on 911 Standardized Dispatch Protocols Stakeholder Process and Report Pursuant to Resolves 2019, c.24.

As a long time fire service professional, I believe the use of EFD does nothing to enhance the service levels of our dispatch centers across the State of Maine. There are many complaints regarding the inconveniences caused by EFD when those calls are received by our dispatchers. Therefore, we, the department heads, hear of many frustrated citizens regarding the wordiness and tedious inefficient nature of a program that is supposed to be designed to help people in times of need.

I also do not feel that EPD will be an enhancement due to the same basic issues. I was once a dispatcher who worked the "Blizzard of 1978" here in York, and believe me, there could not have been more emergencies during that storm period.

I have been involved with the fire service in York for over 40 years. Currently, I presently hold a Maine Chief Fire Officer Level III Certification through the Maine Fire Chief's Association. You can take my word on this, the authorities should leave the implementation of EFD and EPD to the local fire & police chiefs, who supervise and control their PSAPs. These professionals know their jurisdictions best and have proven track records of service and experience in their home towns. Further, it is time to listen to the experts in the field instead of a small group of advocates. Most fire and police chiefs support and maintain the EMD program and it has proven its worth time and time again, even though that program has some cumbersome processes inherent in it.

Clear opposition to the other dispatch programs has been voiced on more than one occasion. The State of Maine should maintain EMD, and should financially support the costs for that program, and relieve the local taxpayers from financial burdens associated with costs for training, quality assurance, certifications training etc for PSAPS. The formal testimony by MMA regarding unfunded mandates should send a strong message forward.

The EFD and EPD programs are expensive and un-necessary. Most content for these programs is geared around larger cities and larger dispatch centers with larger staffing, and dedicated call takers. It is strongly urged that the PUC, ESCB, and Maine Legislature discontinue any further mandates to use EFD, and also to discontinue any further efforts to implement EPD.

Also, action should be taken to immediately authorize the ESCB to allow the use 911 surcharge funds to adequately cover the local costs of training and Q/A programs to eliminate the burden on local community taxpayers.

If there are any further questions regarding these programs, I would be glad to meet with any official members of the aforementioned boards, or commissions.

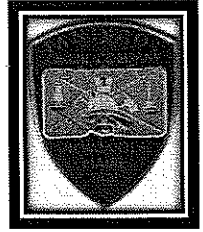
Professionally,

A handwritten signature in cursive script that reads "Chris Balentine".

Chris Balentine
Fire Chief

Newcastle Fire Company Inc.

P.O. Box 270 / 86 River Road
Newcastle, ME 04553
PH: 207-563-3888 Fax: 207-563-7888



Maine Public Utilities Commission
Attn: Paulina Collins
18 State House Station
Augusta, ME 04333-0018

September, 27, 2019

Dear Paulina

Please accept this letter as feedback on the mandatory use of Emergency Fire Dispatch (EFD). I am writing as the Fire Chief for Newcastle Fire Department. In this letter, I will outline some of the concerns with EFD, how its implementation has slowed and/or complicated responses to emergency situations, and my recommendation for immediate action. It is important to note that this letter is intended to outline the problems that emergency responders and dispatchers face while using this system and how it impacts our individual Departments and also our collective ability to respond to emergencies in a timely and efficient manner.

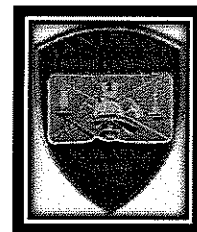
Overall, the biggest challenge our fire department has faced since being saddled with dispatching through EFD has been timely receipt of pages. A sampling review of calls, comparing pre-EFD calls to calls received months after the EFD implementation revealed that there was an average of an additional 60 seconds of delay between call receipt and dispatching the appropriate fire department. What does a minute or more delay really mean? In the event of a medium developing fire, it will have doubled in size during this 60 second period. Firefighters responding with this additional delay will be facing a fire twice the size as they would have otherwise. In some cases we have experienced up to an eight minute delay, no small number as Newcastle's average response time from going enroute to off at the scene is eight minutes, effectively taking our response time away from us.

Much of this delay has been attributed to waiting for the "send point" to be reached while following the protocol. Dispatchers and supervisors are concerned to deviate from the protocol, which has resulted in delays with getting units to respond to the emergency. It is only a matter of time until these delays result in a tragic outcome in our community. In rural departments such as ours, there are very few pieces of information needed in order to activate our response and get units enroute, the "What", "Who", and "Where". If the EFD protocol is to remain in use, it is critical to immediately remove the requirement to wait until the "send point" in order to ensure dispatchers can quickly dispatch fire departments to all calls for service once this core information has been communicated again "What", "Who", "Where". Any additional information may be dispatched to responding units as it is received.

over

Newcastle Fire Company Inc.

P.O. Box 270 / 86 River Road
Newcastle, ME 04553
PH: 207-563-3888 Fax: 207-563-7888



While EFD is setup to ensure consistent questions in an attempt to ensure all necessary information is collected, it has resulted in over-complicating many calls. The addition of a coded message also provides no value and reverts back to non-English phrases that the National Incident Management System – Incident Command System has worked to eliminate. All of this additional information does not change our initial response. We just need to get dispatched to respond and do our own scene size-up which in many cases is much different than the size up of the caller, – the delay is unnecessary and will cost lives and property!

Similar to Emergency Medical Dispatch (EMD), EFD has some additional purposes to provide consistent pre-arrival and post-dispatch instructions. If this protocol remains in place, it is critical to allow local control of these instructions. There are some instructions, such as opening windows in a Carbon Monoxide (CO) alarm situation, which hinder the process of responding firefighters as it makes it difficult to impossible to determine IF there was an elevated level of CO, and where the source of the gas is coming from. Many emergency calls end up being quite different from the first report, and providing information to open windows in a gas leak situation will contribute to changing the fuel/air ratio, creating a more dangerous environment for first responders.

In closing, the unnecessary delays caused by EFD require immediate attention. In particular, removing the need to wait for “send points” to dispatch, removing the computer generated code from paging and providing local control over pre-arrival and post-dispatch instructions immediately will allow the rest of the protocol to be evaluated to determine its merit. Our volunteer based department works hard to protect the lives, property, and environment in Newcastle, please help remove some of these restrictive barriers imposed by EFD by giving "local Control" back. We stand ready to answer the call, let's make sure it arrives in time to make a difference.

If you have any questions, please do not hesitate to contact me. My cell number is (207) 380-6188. My e-mail address is newcastlefd@roadrunner.com
Thank you!

Clayton Huntley

Clayton Huntley
Fire Chief, Newcastle Fire Department



Massasoit Engine Company Damariscotta Fire Department

Maine Public Utilities Commission
Attn: Paulina Collins
18 State House Station
Augusta, ME 04333-0018
Paulina.collins@maine.gov

October 01, 2019

Dear Ms. Collins,

Please accept this letter as feedback on the mandatory use of Emergency Fire Dispatch (EFD). I am writing as the Fire Chief for the Damariscotta Fire Department. In this letter, I will outline some of the concerns with EFD, how it's implementation has slowed responses to emergency situations, and my recommendation for immediate action. It is important to note that this letter is intended to outline the problems that emergency responders and dispatchers face while using this system and how it impacts our collective ability to respond to emergencies in a timely and efficient manner.

Overall, the biggest challenge our fire department has faced since being saddled with dispatching through EFD has been timely receipt of pages. A sampling of calls, comparing pre-EFD calls to calls received months after the EFD implementation, revealed that there was an average of an additional 60 seconds of delay between call receipt and dispatching the appropriate fire department. What does a minute or more delay really mean? In the event of a medium developing fire, it will have doubled in size during this 60-second period. Firefighters responding with this additional delay will be facing a fire twice the size as they would have otherwise.

Much of this delay has been attributed to waiting for the "send point" to be reached while following the protocol. Dispatchers and supervisors are hesitant to deviate from the protocol, which has resulted in delays with getting units to respond to the emergency. It is only a matter of time until these delays result in a tragic outcome in our community. In rural departments such as ours, there are very few pieces of information needed in order to activate our response and get units en route, the "what," "who," and "where." If the EFD protocol is to remain in use, it is critical to immediately remove the requirement to wait until the "send point" in order to ensure dispatchers can quickly dispatch fire departments to all calls for service once this core information has been communicated.

While EFD is set up to ensure consistent questions in an attempt to ensure all necessary information is collected, it has resulted in over-complicating many calls. The addition of a coded message also provides no value and reverts back to non-English phrases that the National Incident Management System – Incident Command System has worked to eliminate. All of this additional information does not change our initial response. We just need to get dispatched to respond and do our scene size-up – the delay is unnecessary and will cost lives!

Similar to Emergency Medical Dispatch (EMD), EFD has some additional purposes to provide consistent pre-arrival and post-dispatch instructions. If this protocol remains in place, it is critical to allow local control of these instructions. There are some instructions, such as opening



Massasoit Engine Company Damariscotta Fire Department

windows in a carbon monoxide (CO) alarm situation, which hinder the process of responding firefighters. Opening windows makes it difficult to impossible to determine IF there was an elevated level of CO and where the source of the gas is coming from. Many emergency calls end up being quite different from the first report, and providing information to open windows in a gas leak situation could contribute to changing the fuel/air ratio, creating a more dangerous environment for first responders.

In closing, the unnecessary delays caused by EFD require immediate attention. In particular, removing the need to wait for "send points" to dispatch, removing the computer-generated code from paging and providing local control over pre-arrival and post-dispatch instructions immediately will allow the rest of the protocol to be evaluated to determine its merit. Our volunteer-based department works hard to protect the lives, property, and environment in Damariscotta. Please help remove some of these restrictive barriers imposed by EFD. We stand ready to answer the call; let's make sure it arrives in time to make a difference.

If you have any questions, please do not hesitate to contact me. My cell number is (207) 380-6880. My e-mail address is jroberts@lcnme.com.

Thank you!

A handwritten signature in black ink that reads "John Roberts".

John Roberts
Foreman, Massasoit Engine Company
Fire Chief, Damariscotta Fire Department



Falmouth Police Department

2 Marshall Drive
Falmouth, ME 04105
Tel. (207) 781-2300
TTY (207) 781-4154 Fax (207) 781-3448
E-mail: police@town.falmouth.me.us

John F. Kilbride
Chief of Police

Maine Public Utilities Commission
18 State House Station
Augusta, ME 04333

Case: 2019-00159

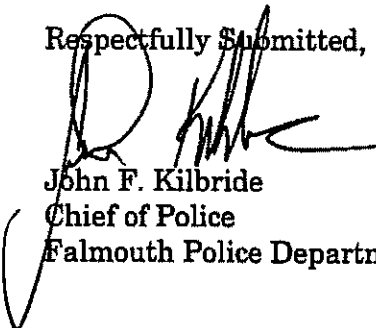
COMMISSION INITIATED INQUIRY RELATED TO A 911 STANDARDIZED DISPATCH PROTOCOLS STAKEHOLDER PROCESS REPORT PURSUANT TO RESOLVES 2019, C.24

The Falmouth Regional Communications Center, which is a non-PSAP emergency dispatch service provider for the towns of Falmouth and Yarmouth, strongly opposes the mandatory implementation of dispatch protocols here in the State of Maine. The potential financial liability in purchasing, training, staffing, and/or outsourcing the dispatch protocols would likely result in the closure of our eight-person communications center. Such a closure would lead to an increase call volume to the area PSAP, while also eliminating the local customer service experience that our constituents desire.

As a police practitioner, I have concerns that extend beyond the financial implications of the state mandating the proprietary services of a private contractor. These dispatch protocols, especially in respect to Emergency Police Dispatch (EPD), would handcuff our dispatchers into "robotic-like" scripts. With approximately 75% of emergency call volume being police related, EPD protocols void years of experience, intuition, geographical knowledge, and discretion from our communications' professionals. Furthermore, the presented statistics suggest dispatch protocols have negatively affected the response time of emergency personnel, delaying the potential life-saving intervention that our first responders provide.

After reviewing all the information presented by my public safety colleagues, I am convinced that the mandatory implementation of Emergency Police Dispatch protocols does not result in a more efficient dispatching methodology, nor does it improve the public safety of our citizens. This, combined with the unfunded budgetary issues surrounding the adoption of this proposed mandate, would curtail our efficient handling of police calls while also reducing our service level as an agency. On behalf of the men and women of the Falmouth Regional Communications Center, thank you for the opportunity to provide commentary on this important issue.

Respectfully Submitted,


John F. Kilbride
Chief of Police
Falmouth Police Department

Maine Public Utilities Commission

10/01/2019

Doc# 2019-00159

Attn. Paulina Collins

18 SHS

Augusta, Maine 04333-0018

Dear Commissioners. Please accept these comments in relative to the protocol stakeholder process. I am submitting as a member of the E911 Council, and also from the perspective of a firefighter, first responder.

Beyond the many comments submitted to the PUC site, and testimony given at the two stakeholder hearings, I would like to refer back to the 2011-2012 consultant's report, which I believe remains the most objective and fact-filled guidance to consider going forward.

I am also including references from NENA, NFPA and ISO as they specifically relate to the implementation of a standard of care, protocol and QA, and the efforts needed to effect change in the dispatch and fire responder community. It is interesting to see how accurate the consultant was in anticipating the resistance to change to come, some 7 years earlier.

2.4.1 PSAPs and Protocol At the PSAP, protocol becomes the standard of care and practice. Emergency calls that arrive are processed according to a defensible standard, and every incident receives the same level of service no matter what day it is, what time of day it is, or who is taking the call.

PSAPs implementing protocol, along with a QA process, establish internal practices that yield tangible results insofar as delivering the highest standard of care and practice for both the public as well as emergency responders. The QA process, often referred to as a never-ending cycle of improvement, ensures that telecommunicators receive feedback on a regular basis regarding how well they are doing their jobs. This continual cycle of improvement, which is perhaps the biggest benefit of QA, provides the structure for positive re-enforcement, reeducation or remediation if required, and is the most effective way of improving on-the-job habits and behaviors. This ultimately leads to employees who feel good about their workforce contribution, and have been assured that they are being supported by the supervisory and management team. This in turn leads to increases in job satisfaction that can lead to lower PSAP attrition, and other tangible workplace benefits.

2.4.2 Change Management and Protocol Implementation Change management is a structured approach to shifting or transitioning individuals, teams, and organizations from the current state to a desired future state. For PSAPs, the adoption of protocols for police and fire call processing represents a change from an unstructured method to a highly structured method for performing those tasks. This change predictably creates real and foreseeable workplace challenges.

The biggest challenge PSAPs face when implementing structured protocols is telecommunicator resistance to the introduction of a different way of performing their jobs. They do not immediately see protocol as a tool that improves their ability to process emergency calls. On the contrary, telecommunicators may see themselves as victims being forced into doing something that they see no

clear reason for doing. Unfortunately, most reasons for protocol implementation are the result of mishandled calls where the outcomes have not been positive. Instead of viewing the new system as a useful tool that provides a safety net for ensuring all calls are processed correctly, employees view the system as being almost punitive in nature. For others, the new system implies that they are incompetent and unable to perform their jobs in a satisfactory nature. Organizations that adopt protocols to deliver their services significantly increase the quality of their services. And organizations that adopt protocol before a tragedy occurs should be recognized for their foresight and vision in adopting an industry recognized best practice.

2.4.3 Recommended Best Practices The National Emergency Number Association (NENA) is a not-for-profit public safety organization that serves its members and the greater public safety community as the only professional organization solely focused on 9-1-1 policy, technology, operations, and education issues. NENA works with 9-1-1 professionals nationwide to establish industry leading standards, training, and certifications. Through the association's efforts to provide effective and efficient public safety solutions, NENA strives to protect human life, preserve property, and maintain the security of our communities.

In 2008, **NENA published the Emergency Call Processing Protocol Standard (NENA Emergency Call Processing Protocol Standard/Model Recommendation NENA 56-006 June 7, 2008)**. It provides emergency communication processing centers with a framework from which agencies can define appropriate emergency communication protocol requirements and recommendations for day-to-day operations and for disaster/major event scenarios. It is designed to provide uniformity and consistency in the handling of 9-1-1 and other emergency calls. It recommends standardized call processing protocols for all emergency call types, standardized prioritization of calls, and standardized pre-planned responses based on the level of prioritization of calls. The research, development, and implementation of call-processing protocols is endorsed by NENA **as the most effective way to ensure the highest standard of care for both the emergency responders as well as the public.**

The following is an excerpt from the NENA Emergency Call Processing Protocol Standard/Model Recommendation NENA 56-006 June 7, 2008:

"2.2 Reason to Implement: NENA recognizes the value of a standardized, structured approach to call taking in 9-1-1 and emergency communications centers for day-to-day, routine operations. Large-scale incidents, including natural and man-made disasters, will have a substantial impact on 9-1-1 center operations and emergency call handling. In order to manage these events successfully, centers must have both routine call taking protocols and procedures, as well as contingency call taking protocols and procedures for such large-scale events. Further, recognizing that quality assurance and quality improvement processes are a required component of PSAP and emergency communication center operations, NENA supports the use of call taking protocols defined in this standard as a foundational element for measuring emergency communication processing center performance, and developing targeted continuing education and continuous feedback to the Telecommunicator."

NFPA 1221 (2019) 7.7: (Operating procedures)

7.7* Quality Assurance/Improvement. Communications centers shall establish a quality assurance/improvement program to ensure the consistency and effectiveness of event processing.

A.7.7 The purpose of the quality assurance program is to follow up and review calls with communication center employees, improve procedures, and make the corrections needed to improve service and response. Generally accepted statistical methods should be used when selecting calls for review.

NFPA 1061 (2018) A.4.4.1 (A):

Public Safety Telecommunicator I (Disseminate)

A pre-arrival instruction or information will be provided based on policies, procedures, or guidelines of the authority having jurisdiction.

The functions of the Public Safety Telecommunicator might include the use of predetermined questions, pre-arrival telephone instructions, and pre-assigned actions that are an integral part of the responsibility to prioritize calls and assist in the stabilization of the situation.

A pre-arrival reference system should be in a uniform format that is an accessible and reproducible document based on current guidelines and administrative protocols.

ISO

Fire Suppression Rating Schedule

Chapter 1, Section 400 – Emergency Communications

Adopting elements of NFPA 1221 &1061

Alarm Receipt and Processing

Emergency Dispatch Protocols

Telecommunicator Training and Certification

Telecommunicator Continuing Education and Quality Assurance

10% for Dispatch functions

Going forward in the process toward possible legislation, I would most strongly urge the Bureau, PUC Commissioners, and members of the Utilities, Energy and Technology Legislative committee to consider not only the comments offered by stakeholders, in writing and/or in attendance at hearings, but to also carefully review the 2011-2012 report for its findings and recommendations. Many recommendations have sat without action and need consideration.

I would also ask that all parties avail themselves of the data and research articles to be submitted separately by the International Academies of Emergency Dispatch, as compiled from protocol users throughout the country.

Respectfully:

Stephan M. Bunker

Maine E911 Council

& Farmington Fire Rescue

Nobleboro Fire Department

Maine Public Utilities Commission
Attn: Paulina Collins
18 State House Station
Augusta, ME 04333-0018
Paulina.collins@maine.gov

October 3, 2019

Dear Ms. Collins,

Please accept this letter as feedback on the mandatory use of Emergency Fire Dispatch (EFD). I am writing as the Fire Chief for Nobleboro Fire Department. In this letter, I will outline some of the concerns with EFD, how it's implementation has slowed responses to emergency situations, and my recommendation for immediate action. It is important to note that this letter is intended to outline the problems that emergency responders and dispatchers face while using this system and how it impacts our collective ability to respond to emergencies in a timely and efficient manner.

Overall, the biggest challenge our fire department has faced since being saddled with dispatching through EFD has been timely receipt of pages. A sampling of calls, comparing pre-EFD calls to calls received months after the EFD implementation, revealed that there was an average of an additional 60 seconds of delay between call receipt and dispatching the appropriate fire department. What does a minute or more delay really mean? In the event of a medium developing fire, it will have doubled in size during this 60-second period. Firefighters responding with this additional delay will be facing a fire twice the size as they would have otherwise.

Much of this delay has been attributed to waiting for the "send point" to be reached while following the protocol. Dispatchers and supervisors are hesitant to deviate from the protocol, which has resulted in delays with getting units to respond to the emergency. It is only a matter of time until these delays result in a tragic outcome in our community. In rural departments such as ours, there are very few pieces of information needed in order to activate our response and get units en route, the "what," "who," and "where." If the EFD protocol is to remain in use, it is critical to immediately remove the requirement to wait until the "send point" in order to ensure dispatchers can quickly dispatch fire departments to all calls for service once this core information has been communicated.

While EFD is set up to ensure consistent questions in an attempt to ensure all necessary information is collected, it has resulted in over-complicating many calls. The addition of a coded message also provides no value and reverts back to non-English phrases that the National Incident Management System – Incident Command System has worked to eliminate. All of this additional information does not change our initial response. We just need to get dispatched to respond and do our scene size-up – the delay is unnecessary and will cost lives!

Similar to Emergency Medical Dispatch (EMD), EFD has some additional purposes to provide consistent pre-arrival and post-dispatch instructions. If this protocol remains in place, it is critical to allow local control of these instructions. There are some instructions, such as opening windows in a carbon monoxide (CO) alarm situation, which hinder the process of responding firefighters. Opening windows makes it difficult to impossible to determine IF there was an elevated level of CO and where the source of the gas is coming from. Many emergency calls end up being quite

Nobleboro Fire Department

different from the first report, and providing information to open windows in a gas leak situation could contribute to changing the fuel/air ratio, creating a more dangerous environment for first responders.

In closing, the unnecessary delays caused by EFD require immediate attention. In particular, removing the need to wait for "send points" to dispatch, removing the computer-generated code from paging and providing local control over pre-arrival and post-dispatch instructions immediately will allow the rest of the protocol to be evaluated to determine its merit. Our volunteer-based department works hard to protect the lives, property, and environment in Nobleboro. Please help remove some of these restrictive barriers imposed by EFD. We stand ready to answer the call; let's make sure it arrives in time to make a difference.

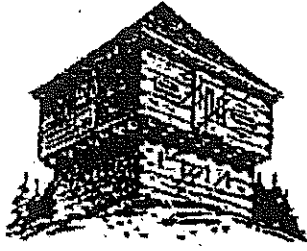
If you have any questions, please do not hesitate to contact me. My cell number is (207) 592-5301. My e-mail address is chief@nobleborofd.org.

Thank you!



Ryan A. Gallagher

Fire Chief, Nobleboro Fire Department



ROBERT A. MOULTON
CHIEF OF POLICE

TOWN OF SCARBOROUGH
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04074

DAVID W. GROVER
Deputy Chief

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October 2, 2019

Maine Public Utilities Commission
18 State House Station
Augusta, Maine 04333-0018

Re: Docket No. 2019-00159

Please accept this letter as a comment of the Scarborough Police Department and PSAP on the Commission Inquire Related to a 911 Standardized Dispatch Protocols.

The Scarborough Police Department Dispatch Center is a full functioning PSAP answering emergent calls from Scarborough, Old Orchard Beach, and Buxton. Our center is comprised of 9 Dispatchers and 4 Lead Dispatchers. Scarborough has always prided itself on the intelligence and resourcefulness of our dispatchers. We have produced some of the finest dispatchers in the profession and work hard to maintain and exceed our level of service each and every day. Our dispatch training program is second to none. We are proud to say that every dispatcher in our organization is an integral part of our public safety team. Our police and fire officers see them as a partner on the streets and in the buildings with them and a true family member.

Throughout the years our dispatchers have survived many changes in technology. Among those was the struggle to work EMD into their repertoire. While there were many bumps along the way they for the most part have accepted it and learned to work within its confines. It is telling that should any of them ever call for emergency services they refuse to answer any of the questions and simply tell the on duty dispatcher to "send the rescue, it's a heart attack!" Now that EMD has been with us for some time we can predict what we should expect from EFD and fearfully even EPD. Scarborough is a fine example and likely not the only one that has dispatchers that are both pre and post EMD implementation. While some have noted that EMD, EFD and even EPD could be great training tools. We would suggest that they are not as useful as implied. With pre EMD dispatchers we see individuals that are intuitive problem solvers and keepers of institutional knowledge. With post EMD dispatchers we see individuals that have memorized scripts and listen only for the correct answer. We spend countless hours in university classes and even our own police academy teaching people to look, listen and respond. To speak to individuals in a way that that person can relate to in order to ascertain the most valuable information. At the Scarborough PSAP we are a series of vastly differing socioeconomic neighborhoods. Why would our colleges, universities and even our police academy spend hours upon hours teaching students how to communicate in different ways, to be aware of who they are speaking with and to speak at the level that best suits their audience. But then tie the finest dispatchers in the state to a script? How frustrated are people today when the encounter a cashier who cannot make change


without a computer, robotic phone surveys, or scripted help lines? Why on earth would you want to talk to that person to report a life threatening emergency? Is this really the level of service we wish to provide to our citizens?

After years of being involved in our dispatching operation we have learned that the human interaction in a meaningful and sincere way is one of our finest and most appreciated tools. We at Scarborough have always been very proud of the fact that when you call our station on any line you get a live person that is right here and a valued member of our family. We do not use automated answering systems. Scripted questions will only further separate our professions from the people that we serve and dehumanize our employees to those in dire need of assistance. What could possibly be more reassuring then to have a sincere, comforting dispatcher on the line with you in your moment of need as compared to a scripted robot only listening for the answer so they can move on to the next all while working in fear of choosing the wrong word and getting scored poorly.

This unfunded mandate will not only be a burden psychologically on our citizens and employees, but a financial burden as well. The hours, equipment and training needed to further implement EPD and continue with EFD are a tremendous burden on an already overworked and underpaid work force. In a day and age where jobs are disposable and hiring is at an all-time difficult level, this will do nothing to motivate young, intelligent individuals to seek this profession.

Lastly, it has been mentioned that providing EFD and EPD equates to a higher level of service. While that may be the case in massive call centers in other parts of the country. One could conclude that it will lower the level of service in our small call centers throughout Maine. The PUC must allow us to continue to provide the high level of service our internal and external customers have come to expect and appreciate. Standardized protocols only make all of us equally poor and lower the bar to match those giant call centers that these protocols were designed to fix. We at Scarborough PSAP implore you to listen to this overwhelming response from the boots on the ground. Maine is not a place for standardized robot dispatchers answering police and fire calls. Please do not put our officers and citizens in this dangerous and life threatening position.

Respectfully Submitted,



Robert A. Moulton
Chief of Police

Boothbay Fire Department

Maine Public Utilities Commission
Attn: Paulina Collins
18 State House Station
Augusta, ME 04333-0018
Paulina.collins@maine.gov

October 1, 2019

Dear Ms. Collins,

Please accept this letter as feedback on the mandatory use of Emergency Fire Dispatch (EFD). I am writing as the Fire Chief for Boothbay Fire Department. In this letter, I will outline some of the concerns with EFD, how its implementation has slowed responses to emergency situations, and my recommendation for immediate action. It is important to note that this letter is intended to outline the problems that emergency responders and dispatchers face while using this system and how it impacts our collective ability to respond to emergencies in a timely and efficient manner.

Overall, the biggest challenge our fire department has faced since being saddled with dispatching through EFD has been timely receipt of pages. A sampling of calls, comparing pre-EFD calls to calls received months after the EFD implementation, revealed that there was an average of an additional 60 seconds of delay between call receipt and dispatching the appropriate fire department. What does a minute or more delay really mean? In the event of a medium developing fire, it will have doubled in size during this 60-second period. Firefighters responding with this additional delay will be facing a fire twice the size as they would have otherwise.

Much of this delay has been attributed to waiting for the “send point” to be reached while following the protocol. Dispatchers and supervisors are hesitant to deviate from the protocol, which has resulted in delays with getting units to respond to the emergency. It is only a matter of time until these delays result in a tragic outcome in our community. In rural departments such as ours, there are very few pieces of information needed in order to activate our response and get units en route, the “what,” “who,” and “where.” If the EFD protocol is to remain in use, it is critical to immediately remove the requirement to wait until the “send point” in order to ensure dispatchers can quickly dispatch fire departments to all calls for service once this core information has been communicated.

While EFD is set up to ensure consistent questions in an attempt to ensure all necessary information is collected, it has resulted in over-complicating many calls. The addition of a coded message also provides no value and reverts back to non-English phrases that the National Incident Management System – Incident Command System has worked to eliminate. All of this additional information does not change our initial response. We just need to get dispatched to respond and do our scene size-up – the delay is unnecessary and will cost lives!

Similar to Emergency Medical Dispatch (EMD), EFD has some additional purposes to provide consistent pre-arrival and post-dispatch instructions. If this protocol remains in place, it is critical to allow local control of these instructions. There are some instructions, such as opening windows in a carbon monoxide (CO) alarm situation, which hinder the process of responding firefighters. Opening windows makes it difficult to impossible to determine IF there was an elevated level of CO and where the source of the gas is coming from. Many emergency calls end up being quite

Boothbay Fire Department

different from the first report, and providing information to open windows in a gas leak situation could contribute to changing the fuel/air ratio, creating a more dangerous environment for first responders.

In closing, the unnecessary delays caused by EFD require immediate attention. In particular, removing the need to wait for “send points” to dispatch, removing the computer-generated code from paging and providing local control over pre-arrival and post-dispatch instructions immediately will allow the rest of the protocol to be evaluated to determine its merit. Our volunteer-based department works hard to protect the lives, property, and environment in Boothbay. Please help remove some of these restrictive barriers imposed by EFD. We stand ready to answer the call; let’s make sure it arrives in time to make a difference.

If you have any questions, please do not hesitate to contact me. My cell number (207) 380-7286. My e-mail address is rspofford@roadrunner.com.

Thank you!

Richard Spofford,
Fire Chief, Boothbay Fire Department

SOUTHPORT Fire Department

Maine Public Utilities Commission
Attn: Paulina Collins
18 State House Station
Augusta, ME 04333-0018
Paulina.collins@maine.gov

October 02, 2019

Dear Ms. Collins,

Please accept this letter as feedback on the mandatory use of Emergency Fire Dispatch (EFD). I am writing as the Fire Chief for Southport Fire Department. In this letter, I will outline some of the concerns with EFD, how it's implementation has slowed responses to emergency situations, and my recommendation for immediate action. It is important to note that this letter is intended to outline the problems that emergency responders and dispatchers face while using this system and how it impacts our collective ability to respond to emergencies in a timely and efficient manner.

Overall, the biggest challenge our fire department has faced since being saddled with dispatching through EFD has been timely receipt of pages. A sampling of calls, comparing pre-EFD calls to calls received months after the EFD implementation, revealed that there was an average of an additional 60 seconds of delay between call receipt and dispatching the appropriate fire department. What does a minute or more delay really mean? In the event of a medium developing fire, it will have doubled in size during this 60-second period. Firefighters responding with this additional delay will be facing a fire twice the size as they would have otherwise.

Much of this delay has been attributed to waiting for the "send point" to be reached while following the protocol. Dispatchers and supervisors are hesitant to deviate from the protocol, which has resulted in delays with getting units to respond to the emergency. It is only a matter of time until these delays result in a tragic outcome in our community. In rural departments such as ours, there are very few pieces of information needed in order to activate our response and get units en route, the "what," "who," and "where." If the EFD protocol is to remain in use, it is critical to immediately remove the requirement to wait until the "send point" in order to ensure dispatchers can quickly dispatch fire departments to all calls for service once this core information has been communicated.

While EFD is set up to ensure consistent questions in an attempt to ensure all necessary information is collected, it has resulted in over-complicating many calls. The addition of a coded message also provides no value and reverts back to non-English phrases that the National Incident Management System – Incident Command System has worked to eliminate. All of this additional information does not change our initial response. We just need to get dispatched to respond and do our scene size-up – the delay is unnecessary and will cost lives!

Similar to Emergency Medical Dispatch (EMD), EFD has some additional purposes to provide consistent pre-arrival and post-dispatch instructions. If this protocol remains in place, it is critical to allow local control of these instructions. There are some instructions, such as opening windows in a carbon monoxide (CO) alarm situation, which hinder the process of responding firefighters. Opening windows makes it difficult to impossible to determine IF there was an elevated level of CO and where the source of the gas is coming from. Many emergency calls end up being quite

SOUTHPORT Fire Department

different from the first report, and providing information to open windows in a gas leak situation could contribute to changing the fuel/air ratio, creating a more dangerous environment for first responders.

In closing, the unnecessary delays caused by EFD require immediate attention. In particular, removing the need to wait for “send points” to dispatch, removing the computer-generated code from paging and providing local control over pre-arrival and post-dispatch instructions immediately will allow the rest of the protocol to be evaluated to determine its merit. Our volunteer-based department works hard to protect the lives, property, and environment in Southport. Please help remove some of these restrictive barriers imposed by EFD. We stand ready to answer the call; let's make sure it arrives in time to make a difference.

Thank you!

Gerald L. Gamage
Fire Chief, Southport
Fire Department

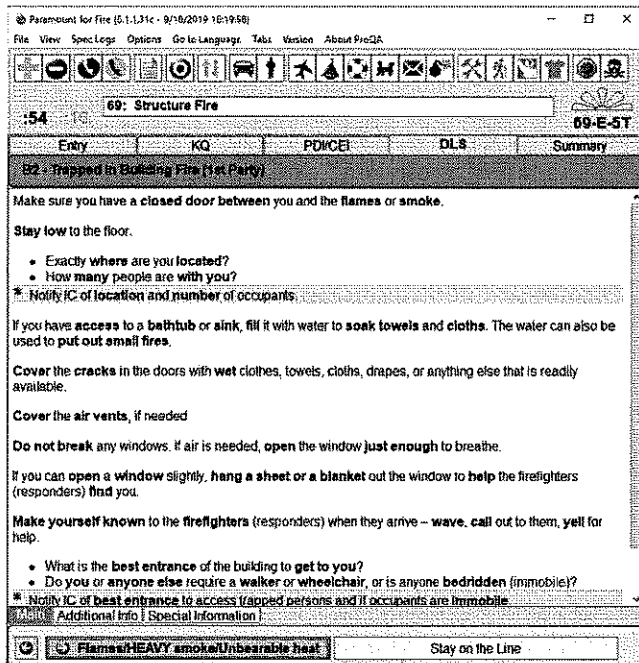
- **“Required to ask all questions”**

ANSWER: This is a common misconception about our system, and one could not be more untrue. While our structured system ensures consistent information is gathered for all responders, that information can be obtained spontaneously by the caller statements. Our Minimum Performance Standards state that all questions must be asked unless the answer is obvious, or if it's been spontaneously provided by the caller. Answers to any question is considered Obvious when the caller explicitly gives the answer, or when the caller provides the answer to clear and obvious references to the scene or patient/victim circumstances. In addition, when the dispatcher is using ProQA (software), the logic engine reduces the number of questions by hiding or auto-answering when it has the facts to do so. This would include age or scene-specific information when ProQA has “facts” that eliminate the question or will auto-answer with known information. So, if someone were to look at a copy of the cardset, the amount of questions appears to be larger than it would be in the software environment.

- **“Structure fire, jump or wait” ECHO response, immediate send**

ANSWER: To assist fire departments in combating Reflex Time (time from the fire being found to the time to get firefighters on scene on the fire floor), the FPDS provides an immediate dispatch opportunity to dispatch a first-due alarm anytime the caller provides information regarding smoke or flame inside an structure. Additional information is then quickly obtained regarding the type of structure and if anyone is known to be trapped inside. The IAED Data Center currently has over 230K incidents provided by 18 of our user agencies, and this data shows us the median call processing time for Echo-Level determinants is on 27 seconds from the launch of ProQA. That time is well within the recommended time standard recommended by NFPA 1221. It is also important to realize that in addition to the Fast Track ECHO codes in fire which are dispatched as fast as humanly possible, there are also incidents where the EFD will ask a few questions, then make a dispatch (Delta Now), give immediate safety instructions, then complete the rest of the Key Question stack if appropriate. All these things are done to reduce to time to reach an appropriate dispatch point.

Regarding those extremely rare circumstances where the dispatcher is speaking to someone trapped in a building, there are specific directions the EFD can use to move them to a safe location or exit the building by atypical means. This does include telling the caller to drop from a window that is two stories or lower in worse case scenarios. There are specific conditions where these instructions are used as seen in the screenshot below (Caller threatened by Flames or Heavy Smoke and/or Intense Heat). In these situations, the EFD is trained to get the caller out of the building by any means possible, or at least move them to a safer area where they can be rescued. Version 7 of the Fire Protocols has these specific, HIGH-RISK, instructions to deal with imminent life threat situations.



- **“Police call more fluid than fire”**
- **“Makes dispatchers sound like robots”**

ANSWER: Another common misconception of a structured calltaking process. Most calltakers after a very short period are able to craft their workflow of professional communication around the structured sequences of questions and instructions. When they realize they no longer must think about what to ask a caller, they incorporate the interrogation sequences into their normal routine, and the outcome is quite normal and fluid. Our Minimum Performance Standards also allow and encourage dispatchers to work with and reassure the caller that help is on the way, and that they will provide information to help them and those around them until responders arrive. Certified dispatcher in all disciplines are also taught to appropriately clarify information when answers are vague or ambiguous. Most Emergency Dispatchers and Administrators soon realize they do not have to make up the process every single time the phone rings, and it does not rely on everyone in the center to have the same collective knowledge of each event type. From court cases and from the media reports, we know that asking questions that have no bearing on appropriately assigning response resources, or those that show a form of bias against the caller or others on scene are a real danger and risk to responders and the system as a whole. It is important to note that every question in our system has a defined objective. These objectives are; to identify safety risks to the caller, patient/victim or responders, to decide the most appropriate resources, looking for conditions requiring caller instructions, and to provide responders with appropriate information as they respond. If one thinks about it, which of these objectives would you remove? Our Proposal for Change (PFC) process allows our users from all over the world to assist the IAED in making meaningful change to all our protocols.

- **“Protocols don’t flow together”**

ANSWER: Unlike clinical medicine, fire incidents are more unique, and a One Size Fits All approach is not as effective. These protocols approach each incident moving from the outside in. This means before we can get to the victim or actual event, we have concentric circles of risk or hazards that must be identified and/or mitigated. So, the information sequences can be very different in how these pieces of information are obtained. The instruction sets are also very different from event type to event type. In fire, we see with some frequency where well-

meaning callers will attempt to put out a structure fire from the outside with a garden hose when someone is trapped or will attempt to rescue a trench collapse victim prior to the arrival of fire crews. While well-intended, these actions can compromise safety and can cause considerable harm and put firefighters more at risk when they arrive. Therefore, the instruction sets are heavily laden with information about what Not to do until firefighters arrive in addition to what they should do. This is not apathy, but an approach that deals effectively with safety and scene stabilization.

- **“Maine is different, rural North vs southern Maine, police response different”**

We’ve heard this accusation made by small and large centers alike. While a large center may make this claim towards the protocol, the opposite gets claimed by small centers. This is simply a non-truth excuse claiming the system will not fit in their center because they are too small, or too large. Truth is, agencies of all size have success with PPDS. The PPDS remains the most flexible protocol of the three, from allowing centers to determine many of the questions asked in a given Chief Complaint or there exclude from the protocol based on a given agencies resources, both in the center and it’s responding law enforcement agencies, to the ability to tailor CEI information specific to agency policy and practice. The priorities of the police protocol are foundational to best the practices in police call taking throughout the U.S. and claims that “it won’t work here” have been proven false time and time again.



Maine Fire Chiefs' ASSOCIATION

Local Government Center 60 Community Drive Augusta, Maine 04330-9486

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Chief John Duross
Saco Fire Department

1st Vice President
Chief Darrell White
Presque Isle Fire Department

2nd Vice President
Chief Thomas Higgins
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Vacant
Waldo County

Vacant
Washington County

Past President
Chief Duane Bickford
Fairfield Fire Department

Executive Director
Jeffrey Cammack
Executive Director/
Legislative Liaison

October 2, 2019

Maine Public Utilities Commission
18 State House Station
Augusta, ME 04333-0018

RE: Docket No. 2019-00159

Please accept this testimony from the Maine Fire Chiefs' Association (MFCA) regarding the Commission's Inquiry Related to a 911 Standardized Dispatch Protocols Stakeholder Process and Report Pursuant to Resolves 2019, c. 24.

At the MFCA's annual membership meeting held on 10/2/19 the association discussed the testimony presented at the Stakeholder meetings as well as that submitted in writing. The association voted nearly unanimously to testify on these important issues as noted below:

1. The MFCA supports maintaining the use of the Emergency Medical Dispatch (EMD) protocols as the pre-arrival instructions have proven to be beneficial and save lives.
2. The MFCA does not feel the Emergency Fire Dispatch (EFD) protocols provide a similar benefit and many chiefs voiced frustration over the significant delays in being dispatched due to the forced implementation of this program. The MFCA supports rescinding the mandatory requirement for PSAPs to use EFD as it adds little if any value to the fire departments and has caused significant delays in emergency response.
3. The MFCA joins our colleagues from the Maine Chiefs of Police Association in staunch opposition to the future implementation of the Emergency Police Dispatch (EPD) protocols. Since police calls for service make up the largest percentage of a center's calls, the burden and additional delays caused by implementing EPD would most certainly further degrade dispatch services to fire and EMS agencies.
4. Finally the MFCA believes that all costs of training dispatchers in the state-mandated protocols as well as all costs for the required Quality Assurance program is an unfunded mandate to the PSAPs and the local communities that fund them. The association believes those costs should be fully reimbursed by the e911 Surcharge Fund.

Sincerely,

Chief John Duross
President, Maine Fire Chiefs' Association

Boothbay Harbor Fire Department

Maine Public Utilities Commission
Attn: Paulina Collins
18 State House Station
Augusta, ME 04333-0018
Paulina.collins@maine.gov

October 02, 2019

Dear Ms. Collins,

Please accept this letter as feedback on the mandatory use of Emergency Fire Dispatch (EFD). I am writing as the Fire Chief for Boothbay Harbor Fire Department. In this letter, I will outline some of the concerns with EFD, how it's implementation has slowed responses to emergency situations, and my recommendation for immediate action. It is important to note that this letter is intended to outline the problems that emergency responders and dispatchers face while using this system and how it impacts our collective ability to respond to emergencies in a timely and efficient manner.

Overall, the biggest challenge our fire department has faced since being saddled with dispatching through EFD has been timely receipt of pages. A sampling of calls, comparing pre-EFD calls to calls received months after the EFD implementation, revealed that there was an average of an additional 60 seconds of delay between call receipt and dispatching the appropriate fire department. What does a minute or more delay really mean? In the event of a medium developing fire, it will have doubled in size during this 60-second period. Firefighters responding with this additional delay will be facing a fire twice the size as they would have otherwise.

Much of this delay has been attributed to waiting for the "send point" to be reached while following the protocol. Dispatchers and supervisors are hesitant to deviate from the protocol, which has resulted in delays with getting units to respond to the emergency. It is only a matter of time until these delays result in a tragic outcome in our community. In rural departments such as ours, there are very few pieces of information needed in order to activate our response and get units en route, the "what," "who," and "where." If the EFD protocol is to remain in use, it is critical to immediately remove the requirement to wait until the "send point" in order to ensure dispatchers can quickly dispatch fire departments to all calls for service once this core information has been communicated.

While EFD is set up to ensure consistent questions in an attempt to ensure all necessary information is collected, it has resulted in over-complicating many calls. The addition of a coded message also provides no value and reverts back to non-English phrases that the National Incident Management System – Incident Command System has worked to eliminate. All of this additional information does not change our initial response. We just need to get dispatched to respond and do our scene size-up – the delay is unnecessary and will cost lives!

Similar to Emergency Medical Dispatch (EMD), EFD has some additional purposes to provide consistent pre-arrival and post-dispatch instructions. If this protocol remains in place, it is critical to allow local control of these instructions. There are some instructions, such as opening windows in a carbon monoxide (CO) alarm situation, which hinder the process of responding firefighters. Opening windows makes it difficult to impossible to determine IF there was an elevated level of

Boothbay Harbor Fire Department

CO and where the source of the gas is coming from. Many emergency calls end up being quite different from the first report, and providing information to open windows in a gas leak situation could contribute to changing the fuel/air ratio, creating a more dangerous environment for first responders.

In closing, the unnecessary delays caused by EFD require immediate attention. In particular, removing the need to wait for “send points” to dispatch, removing the computer-generated code from paging and providing local control over pre-arrival and post-dispatch instructions immediately will allow the rest of the protocol to be evaluated to determine its merit. Our volunteer-based department works hard to protect the lives, property, and environment in Boothbay Harbor. Please help remove some of these restrictive barriers imposed by EFD. We stand ready to answer the call; let’s make sure it arrives in time to make a difference.

If you have any questions, please do not hesitate to contact me. My cell number is (207) 380-5635. My e-mail address is nupham@boothbayharbor.org
Thank you!

Nick Upham
Fire Chief, Boothbay Harbor Fire Department

Ralph Cammack

From: Ralph Cammack
Sent: Thursday, October 3, 2019 2:12 PM
To: 'Cory.m.golob@maine.gov'
Subject: FMD AND PMD DISPATCHING

Cory,

I do not support keeping the current FMD dispatching system nor do I support the proposed PMD dispatching system for the Penobscot County.

I believe it takes the dispatchers too much time to collect information and this delays paging out emergency services.

Thanks,

Ralph Cammack

Penobscot County Fire Chief's Association

97 Hammond Street

Bangor, Maine 04401

Telephone (207)285-3303

Fax (207)285-3354

The Penobscot County Fire Chief's Association does not support the use of law enforcement or fire department determinate codes. We feel the call taking process is too cumbersome and adds to lengthy delays in the dispatching of units to emergency scenes.

Thanks,

Scott Bragdon
Fire Chief
Town of Corinth
Secretary PCFCA
10/3/2019

From: stephan.bunker <stephan.bunker@gmail.com>
Sent: Thursday, October 03, 2019 4:05 PM
To: Collins, Paulina <Paulina.Collins@maine.gov>
Cc: Jacques, Maria <Maria.Jacques@maine.gov>
Subject: PLEASE ASSIST TO POST Doc# 2019-00159

EXTERNAL: This email originated from outside of the State of Maine Mail System. Do not click links or open attachments unless you recognize the sender and know the content is safe.

In an article from the Winter 2019 Maine Chiefs of Police Association, COMMAND POST newsletter, there was an article in the back entitled **Dispatchers Role in Officer & Scene Safety**. In it the author tries to make the strong connection between critical information gathered by dispatchers and relayed to responding officers and resulting decisions as to tactics and strategies. Included was the discussion of officer deaths as listed on memorial walls, the challenging decisions of use of force, "good guy with a gun" confrontations, and decisions of high speed, lights & siren responses.

The article concludes with a comparison of the use of structured protocols by dispatchers with that of the growing number of mandatory policies that direct police departments in Maine. In both, structure and consistency in how staff are guided in critical decision making is obvious. Just as the law enforcement community is evolving in best practices, so too is the dispatch profession in the use of structured dispatch protocols. Below the Command Post article is a listing of the growing number of model and mandatory policies as required by the Maine Criminal Justice Academy and promoted by the chief's association. Adoption and adherence to such policies is a key ingredient in the chief's association recent adoption of an in-state accreditation process, something that the dispatch profession shares thru a similar accreditation process via the International Academies of Emergency Dispatch. As an incentive toward accreditation by both police and 911 centers, the Maine Municipal Association, Risk Management Pool grants large discounts in insurance policy premiums to cities/towns who attain such an accreditation.

I would only hope that having read the information below, the law enforcement community realize how they and the dispatch profession have much in common and are tied together in the need for better communications, resulting in safer response decisions and outcomes. For those who have studied the police protocol system, they will quickly see that OFFICER SAFETY is of paramount importance.

Stephan Bunker, Charter Member & Historian, Maine Law Enforcement Officers Memorial (LEOM) Committee.

I have been honored to have been a charter member of the Maine Chiefs of Police Law Enforcement Officer Memorial (LEOM) committee, having participated in the memorial wall & statue concept, fund-raising, and research into the details of officer deaths that brought them for inclusion to the wall. In doing so for these many years, I have become immersed in the details and lessons learned in the everyday dangers facing our officers. It is a sad fact that officer names continue to be added to the Maine and national memorial wall, that statistics of officer deaths, assaults and injuries continue to rise. Likewise, crime statistics involving firearms, domestic violence, sexual assaults, active shooter events, workplace violence continue to fill our news headlines. Even as relatively safe as our beautiful state is known as, we are not immune from officer dangers.

In my decades in public safety I has seen great strides in the professionalism of our sworn officers. Among such advances are the ever-increasing training standards for basic training at our academy, continuing education requirements, adoption of uniform policies and practices by departments, and careful considerations in decisions in the use of force, especially deadly force by

officers. Response practices to domestic violence calls and dealing with mental health & special needs calls have gone far in improving response decisions by officers. In these regards, our state is a standout among our peers. Particularly troubling nationally in recent years is the instance of officer-involved shootings, especially those resulting in the death of a citizen. Public reaction to such events, especially given the advent of smartphone videos and body cameras, has been quick to generate citizen outcries and demonstrations. Rather found justified or not, these events can tear a community apart, cause loss of faith in police, and take a tremendous professional and personal toll on the officer(s) involved, along with that of fellow officers. (Ferguson, Missouri, Michael Brown, Jr., 2014) Additionally, resulting litigation can extract a heavy penalty in the form of jury awards and out of court settlements.

Having been a selectman in a community who suffered such an event, I can personally attest to the impact it brings. In my career, with a focus on 9-1-1 and emergency dispatching, I want to discuss the important role of the trained dispatcher as they affect the safety of officers. Much like the advances in training and professionalism by our police officers, in recent years public safety dispatchers in Maine now have a standardized basic training curriculum, continuing education requirements for recertification, and training in the use of standardized protocols for the receipt and dispatching of medical (EMD) and fire (EFD) related emergencies. Such advances have made Maine a national standout in the use of such standards of care, to the benefit of callers and our medical and fire first responders. Inherent in the use of standardized dispatch protocols is the emphasis upon scene safety, specifically safety of the caller, bystanders, and first responders. Over the decades in research conducted by the International Academy of Emergency Dispatch (IAED) it has been documented clearly that the actions of a well-trained dispatcher upon first answering a call can have a dramatic effect upon the outcome of the incident.

Guided by best practices and carefully constructed protocols a dispatcher can quickly and accurately identify the nature of the call, make quick dispatch decisions, arm first responders with essential information to make good response decisions, and provide callers with lifesaving instructions while help is on the way. As it relates to officer safety, the use of carefully structured protocols assists dispatchers in asking appropriate questions focused on such details as access to or use of weapons, injuries at the scene, descriptions of assailants and their locations along with descriptions of callers and others at the scene, not to be confused with assailants. If the assailant has left the scene, useful information would include manner of travel, if a vehicle, its description, direction of travel, and time since leaving. Added officer safety questions could identify threats due to gas leaks, Haz-mat, suspected meth lab byproducts, dangerous dogs, and other hazards that officers would need to take precautions, were they made aware.

One of the greatest challenges to responding officers, especially in crime-in progress calls is to differentiate between complainants vs. assailants. Sadly, in recent news there have been multiple instances where responding officers have confused well intended citizens with that of armed offenders and sadly used deadly force upon what is now referred to as "good guys with a gun". (Jemel Roberson, Midloathian, Ill, Nov. 2018, & Emantic Bradford, Jr., Hover, Al. Nov, 2018), With the increase by citizens in the purchase of firearms for self-defense it would not be unusual for an officer to arrive on scene to be confronted by a citizen with a firearm in hand, innocently attempting to protect their home. Carefully written pre-arrival and post-dispatch instructions given by dispatchers to callers can help avoid confusion by arriving officers as to the threat and avoid confrontations with citizens. Clearly, the availability of accurate & uniform scene information, especially as it relates to the threat or use of dangerous weapons at the scene helps officers make more well-informed tactical decisions in their response. In recent years

It is a sad fact that officer names continue to be added to the Maine and national memorial wall, that statistics of officer deaths, assaults and injuries continue to rise.

there has been a growing instance of assailants intentionally forcing officers to use deadly force, often referred to as "suicide by cop". Carefully trained dispatchers, guided by structured protocols can more accurately identify such threats to officers by the asking of key questions related to access to weapons and threats made by the assailant. (see State of Ga. Vs Christopher Calmer) Other critical decision made by responding officers includes that of high-speed pursuits and driving in emergency mode (e.g. lights & siren). Headlines in the news across the country portray the tragedies involving collisions between responding police vehicles and citizens sharing the same highway. As part of the decision by officers to drive in emergency mode includes important information gathered by dispatchers. Scene safety information such as injuries or threats to victims, weapons use, along with risks to others on the highway must always be considered. As it relates to lights/siren use and emergency vehicle collisions, another dangerous situation can occur called a "wake effect" collision. Rather than collisions with police vehicles, this is the reaction by citizens to sirens, causing them to collide with other vehicles or fixed objects.

According to Dr. Jeff Clawson, MD, & co-founder of the IAED, is quotes in saying." The blind use of lights-and siren may be killing more people than it saves". Research suggests that in urban areas particularly, there may be as many as 5 times more wake-effect collisions than actual emergency vehicle collisions. While response decisions always remain that of the responding officer, the use of structured police dispatch protocols can help gather critical information to aid the officer in choosing whether to operate their vehicle in emergency mode vs. posted highway speeds. We are all aware that emergency vehicle collisions, be they police, fire, or ambulances, can be costly both in terms of officer deaths and injuries, deaths or injury to private citizens, damage to department vehicles and costly litigation. A review of the names of officers listed on memorial walls are a testimony to the dangers behind the wheel. A system of structured all processing that provides a method to prioritize the degree of risk or threat can help officers to make safer, more defensible response decisions. Given a review of the work of dispatchers, it is recognized that the actions and decision-making by them in the first minute or two in a call can affect the outcome of the next hour or two at the scene and the success or failure, or safety of an officer. Given the continued rise in calls for service, with fewer officers to respond, complicated by long response times in rural Maine, help cannot wait until "boots are on the ground", with officers arriving.

The dispatch profession has learned from almost 40 years of using a priority dispatch response system, that help can begin with the answering of the call and continue thru to arrival of officers on-scene. This is referred to as "zero response time" , where dispatch professionals, guided by well thought-out protocols, can immediately offer life-saving pre-arrival and post-dispatch instructions to callers. Time between dispatch and arrival on-scene is a critical window, "Seconds Save Lives" being a common refrain. Because the dispatcher has the first contact with the caller, they have the best, first opportunity to influence those at the scene. In instances of hostages or barricaded subjects, treats of harm by mentally ill subjects, that until officers arrive, the dispatcher is the defacto "negotiator". Along with their police, fire and EMS colleagues, dispatchers are recognized as the "FIRST, first responders", they simply do so by remote control, a phone (or in some circumstances now by text). Responding police officers and dispatchers share two priorities, scene safety (callers and officers) and the apprehension of assailants. The careful collection of scene safety issues, weapons used or available, injuries, description and location of assailants, and manner of departure from the scene are all critical elements that aid in officer safety and improved response decisions. Officers who are responding to crimes in progress are

certainly under a high degree of stress, and depend upon the degree of their training and adherence to approved policies and practices.

Likewise, police dispatchers suffer similar stress in dealing with challenging, often hurt, frightened and angered callers, all while concerned for the safety of their officers. In order to manage stress, dispatchers need a plan, that plan being adherence to carefully worded guidance as found in a priority dispatch system. Such a resource helps under stress to eliminate errors or omissions in information collected and in instructions given, and ensures that responding officers receive the consistent quality of information they depend upon to ensure their safety and effectiveness. In order to ensure that police dispatchers adhere to accepted best practices, the adoption of dispatching standards provides an opportunity to implement a process of quality assurance (QA). A random review of calls by each dispatcher allows the center to compliment good compliance and also identify areas of improvement. This practice is in sharp contrast to those centers and departments who wait for a complaint to arise, and a review focused on blame, giving call review a negative label. The motto of an effective QA program is "catch them doing something right!".

Today's dispatcher who utilize protocols have something in common with the Maine Chiefs, that being an opportunity to achieve dispatch center accreditation for meeting best practices in their profession. PSAPS in Maine who document adherence to protocols thru QA measurements can undergo a review by the IAED and receive national recognition. As an accreditation team member in my hometown police department, I look forward to applying for such an achievement, and encourage my regional PSAP to likewise apply. In closing, I am hopeful that with the continued progress in training and policy development by Maine police departments will improve officer safety and security. Likewise I look forward to the time where our dispatch centers adopt a standard of care in police call answering and dispatching. The two share a common thread in officer safety and quick apprehension of offenders, while protecting the public. I pray that in doing so, may our memorial committee be spared the sad occasion of adding another officer's name to our memorial wall.

Maine Chiefs Other Model Policies:

- [Infectious Disease Control 12/11/2013 \(Word\)](#)
- [Underage Drinking Enforcement 6/10/2005 \(Word\)](#)
- [Missing Persons 6/3/2010 \(Word\)](#)
- [Missing Persons Information Sheet 6/3/2010 \(Word\)](#)
- [Crash Investigation 2/3/2011 \(Word\)](#)
- [K-9 Usage 2/3/2011 \(Word\)](#)
- [Eyewitness Identification 02/01/2018 \(Word\)](#)

Maine Chiefs Mandatory Model Policies:

- [Mandatory Minimum Standards as of 7/1/2020](#)
- [Situational Use of Force 11/1/2019 \(Word\)](#)
- [Barricaded Persons and Hostage Situations 11/1/2019 \(Word\)](#)
- [Response to Mental Illness and Involuntary Commitment 01/1/2018\(Word\)](#)
- [Domestic Violence 11/1/2019 \(Word\)](#)
- [Hate/ Bias Crimes and Violations of Civil Rights 9/15/2011 \(Word\)](#)
- [Investigation of Employee Misconduct 12/1/2018 \(Word\)](#)

- [Death Investigations 1/01/2018 \(Word\)](#)
- [Sex Offender Brochure 06/06/2013\(Word\)](#)
- [Recording of Law Enforcement Interviews of Suspects in Serious Crimes 1/1/2018 \(Word\)](#)
- [Vehicular Pursuit 2/01/2017 \(Word\)](#)
- [Table of Contents 12/01/2018 \(Word\)](#)
- [Public Access to Records 2/11/2005 \(Word\)](#)
- [Sex Offender Community Notification 06/06/2013 \(Word\)](#)
- [Unmanned Aerial Vehicle Use for Law Enforcement 12/11/2013 \(Word\)](#)
- [Deadly Force Incident Procedures 11/1/2019 \(Word\)](#)

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Bristol Fire & Rescue

Maine Public Utilities Commission
Attn: Paulina Collins
18 State House Station
Augusta, ME 04333-0018
Paulina.collins@maine.gov

October 3, 2019

Dear Ms. Collins,

Please accept this letter as feedback on the mandatory use of Emergency Fire Dispatch (EFD). I am writing as the Fire Chief for Bristol Fire & Rescue. In this letter, I will outline some of the concerns with EFD, how it's implementation has slowed responses to emergency situations, and my recommendation for immediate action. It is important to note that this letter is intended to outline the problems that emergency responders and dispatchers face while using this system and how it impacts our collective ability to respond to emergencies in a timely and efficient manner.

Overall, the biggest challenge our fire department has faced since being saddled with dispatching through EFD has been timely receipt of pages. A sampling of calls, comparing pre-EFD calls to calls received months after the EFD implementation, revealed that there was an average of an additional 60 seconds of delay between call receipt and dispatching the appropriate fire department. What does a minute or more delay really mean? In the event of a medium developing fire, it will have doubled in size during this 60-second period. Firefighters responding with this additional delay will be facing a fire twice the size as they would have otherwise.

Much of this delay has been attributed to waiting for the "send point" to be reached while following the protocol. Dispatchers and supervisors are hesitant to deviate from the protocol, which has resulted in delays with getting units to respond to the emergency. It is only a matter of time until these delays result in a tragic outcome in our community. In rural departments such as ours, there are very few pieces of information needed in order to activate our response and get units en route, the "what," "who," and "where." If the EFD protocol is to remain in use, it is critical to immediately remove the requirement to wait until the "send point" in order to ensure dispatchers can quickly dispatch fire departments to all calls for service once this core information has been communicated.

While EFD is set up to ensure consistent questions in an attempt to ensure all necessary information is collected, it has resulted in over-complicating many calls. The addition of a coded message also provides no value and reverts back to non-English phrases that the National Incident Management System – Incident Command System has worked to eliminate. All of this additional information does not change our initial response. We just need to get dispatched to respond and do our scene size-up – the delay is unnecessary and will cost lives!

Similar to Emergency Medical Dispatch (EMD), EFD has some additional purposes to provide consistent pre-arrival and post-dispatch instructions. If this protocol remains in place, it is critical to allow local control of these instructions. There are some instructions, such as opening windows in a carbon monoxide (CO) alarm situation, which hinder the process of responding firefighters. Opening windows makes it difficult to impossible to determine IF there was an elevated level of CO and where the source of the gas is coming from. Many emergency calls end up being quite

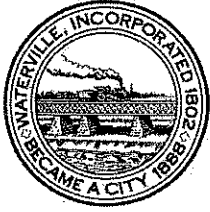
Bristol Fire & Rescue

different from the first report, and providing information to open windows in a gas leak situation could contribute to changing the fuel/air ratio, creating a more dangerous environment for first responders.

In closing, the unnecessary delays caused by EFD require immediate attention. In particular, removing the need to wait for “send points” to dispatch, removing the computer-generated code from paging and providing local control over pre-arrival and post-dispatch instructions immediately will allow the rest of the protocol to be evaluated to determine its merit. Our volunteer-based department works hard to protect the lives, property, and environment in Bristol. Please help remove some of these restrictive barriers imposed by EFD. We stand ready to answer the call; let's make sure it arrives in time to make a difference.

If you have any questions, please do not hesitate to contact me. My cell number is (207) 592-5531 e-mail address is firechief@bristolmaine.org Thank you!

Paul F. Leeman Jr.
Fire Chief, Bristol Fire & Rescue



Waterville Police Department

10 Colby Street
Waterville, Maine 04901-6699

Joseph P. Massey
Chief of Police

William L. Bonney
Deputy Chief

October 3, 2019

To: Maine Public Utilities Commission
State of Maine

Re: Police Protocols

The Waterville Police Department and the Waterville Regional Communications Center (WRCC) oppose the recommendation by the PUC to implement Police Protocols in dispatch centers for the following reasons:

1. The cost of the Police Protocol Technology and the associated costs for training dispatchers

As the cost of public safety services continue to increase for law enforcement agencies, many of Maine's Police Chief are finding it financially difficult to keep up with the ever-evolving software and hardware systems necessary to operate their dispatch centers. The recent proposal by the PUC to implement Police Protocols for PSAPs and dispatch centers is another unfunded mandate for agencies to purchase this technology software system, or contract with another agency to provide the service. For those agencies that purchase the Police Protocol program they will see increased costs associated with training dispatchers on the new protocols, overtime costs and increased cost for personnel (supervisors) performing mandated administrative functions such as quality assurance checks on a routine basis.

2. The unique nature of police calls to change and evolve from moment to moment

The WRCC currently provides both Emergency Medical Dispatch (EMD) and Emergency Fire Dispatch (EFD) services to our customers. We do find that these protocols provide uniformity and are generally beneficial when dispatching calls for medical and fire emergencies. They are stable and predictable calls that almost never involve an unexpected encounter with a deadly adversary. For this reason, police calls are unique, ever changing and dynamic that requires dispatchers to use all their mental agility to adapt to the unfolding events to protect the life of the officer and public. They must have the flexibility and autonomy to deal with the complexities and changing demands of the call. Dispatchers must be allowed to use their best judgement, institutional knowledge and history of people, places and things within their communities to provide callers and officers the best information to make life-saving decisions – this if officer safety first. This is not possible when a dispatcher must read from a scripted police protocol with the ever-present threat of discipline if they stray from the scripted questions they are required to read. They become autobots that only focus on the questions and as a result other personal skills, knowledge and experience diminishes when not used.

3. Unintended consequences of using Police Protocols

When dispatchers are required to follow scripted protocols, they are more likely to miss the important tone of a caller's voice that can often give them better insight of the caller's real circumstances. Complainants and especially victims of crimes may feel a sense of indifference by dispatchers when repeatedly told to answer the questions. It would be difficult for a dispatcher reading from protocol script to interject sympathy, empathy, or a sense of understanding when restricted to questions. It is not only important when a caller hangs-up that they feel they received the information and help they needed, but they are also left that the dispatcher was caring and understanding of their circumstances.

Conclusion:

The Waterville Police Department and the WRCC does not support the recommendations of the PUC to implement Police Protocols. Representatives from the WPD attended the PUCs August 16, 2019 meeting in Hallowell to solicit opinions from the law enforcement community regarding the implementation of Police Protocols. It was clear the police chiefs and dispatch center personnel that gave testimony were strongly against the implementation of Police Protocols. With the strong opposition of the law enforcement community against the implementing Police Protocols, I encourage the PUC to listen to the voice of those that are responsible for providing public safety services to Maine communities and not move forward with the implementation of Police Protocols.

Respectfully Submitted,

Joseph Massey
Chief of Police

XXX Fire Department

Maine Public Utilities Commission
Attn: Paulina Collins
18 State House Station
Augusta, ME 04333-0018
Paulina.collins@maine.gov

October 15, 2019

Dear Ms. Collins,

Please accept this letter as feedback on the mandatory use of Emergency Fire Dispatch (EFD). I am writing as the Fire Chief for Edgecomb Fire Department. In this letter, I will outline some of the concerns with EFD, how it's implementation has slowed responses to emergency situations, and my recommendation for immediate action. It is important to note that this letter is intended to outline the problems that emergency responders and dispatchers face while using this system and how it impacts our collective ability to respond to emergencies in a timely and efficient manner.

Overall, the biggest challenge our fire department has faced since being saddled with dispatching through EFD has been timely receipt of pages. A sampling of calls, comparing pre-EFD calls to calls received months after the EFD implementation, revealed that there was an average of an additional 60 seconds of delay between call receipt and dispatching the appropriate fire department. What does a minute or more delay really mean? In the event of a medium developing fire, it will have doubled in size during this 60-second period. Firefighters responding with this additional delay will be facing a fire twice the size as they would have otherwise.

Much of this delay has been attributed to waiting for the "send point" to be reached while following the protocol. Dispatchers and supervisors are hesitant to deviate from the protocol, which has resulted in delays with getting units to respond to the emergency. It is only a matter of time until these delays result in a tragic outcome in our community. In rural departments such as ours, there are very few pieces of information needed in order to activate our response and get units en route, the "what," "who," and "where." If the EFD protocol is to remain in use, it is critical to immediately remove the requirement to wait until the "send point" in order to ensure dispatchers can quickly dispatch fire departments to all calls for service once this core information has been communicated.

While EFD is set up to ensure consistent questions in an attempt to ensure all necessary information is collected, it has resulted in over-complicating many calls. The addition of a coded message also provides no value and reverts back to non-English phrases that the National Incident Management System – Incident Command System has worked to eliminate. All of this additional information does not change our initial response. We just need to get dispatched to respond and do our scene size-up – the delay is unnecessary and will cost lives!

Similar to Emergency Medical Dispatch (EMD), EFD has some additional purposes to provide consistent pre-arrival and post-dispatch instructions. If this protocol remains in place, it is critical to allow local control of these instructions. There are some instructions, such as opening windows in a carbon monoxide (CO) alarm situation, which hinder the process of responding firefighters. Opening windows makes it difficult to impossible to determine IF there was an elevated level of CO and where the source of the gas is coming from. Many emergency calls end up being quite

XXX Fire Department

different from the first report, and providing information to open windows in a gas leak situation could contribute to changing the fuel/air ratio, creating a more dangerous environment for first responders.

In closing, the unnecessary delays caused by EFD require immediate attention. In particular, removing the need to wait for “send points” to dispatch, removing the computer-generated code from paging and providing local control over pre-arrival and post-dispatch instructions immediately will allow the rest of the protocol to be evaluated to determine its merit. Our volunteer-based department works hard to protect the lives, property, and environment in Edgecomb. Please help remove some of these restrictive barriers imposed by EFD. We stand ready to answer the call; let’s make sure it arrives in time to make a difference.

If you have any questions, please do not hesitate to contact me. My cell number is (207) 232-6742. My e-mail address is rdpotter68@gmail.com.

Thank you!

Roy Potter
Fire Chief, Edgecomb Fire Department



International Academies
of Emergency Dispatch

EMERGENCY DISPATCH RESEARCH AT WORK

R E S E A R C H B R I E F



IS THERE A STANDARD OF CARE AND PRACTICE FOR EMERGENCY DISPATCH?

Yes! Ignorance of the standard is no defense.

THE STANDARD OF CARE AND PRACTICE FOR EMERGENCY DISPATCH

Response: A call for help generates a response or activates a plan for alternate, non-mobile care.

Assumptions: Callers are not judged nor denied service based on behaviors or assumptions.

Customer Service: Emergency dispatchers are professionals who provide a high level of customer service. They can't save everyone, but they can help everyone.

Protocol: Emergency dispatchers use a standardized protocol consistently and compliantly.

Relevant Information: Emergency dispatchers collect all relevant information and pass it to responders.

Pre-Arrival Instructions: Emergency dispatchers provide telephone pre-arrival instructions when necessary.

Comprehensive System: Agency provides a comprehensive dispatch system that accurately and safely differentiates high- and low-acuity cases.

Certification: Agency provides emergency dispatcher training, certification, and call review with routine feedback.

Establishing a Standard: Over time and through litigation, concepts have evolved into a standard that reflects society's expectations of an emergency dispatch system. Emergency services and public safety agencies without this standard in place should be prepared to defend their practices in court—and in the court of public opinion.

Liability: Ignorance of the standard is not a reasonable defense; both the courts and the public use it to judge emergency communication centers, municipalities, and individual dispatchers in legal cases. Everyone involved in emergency dispatch is liable when errors occur, people are harmed, and lawsuits result.

AGENCIES WITHOUT THIS STANDARD IN PLACE SHOULD BE PREPARED TO DEFEND THEIR PRACTICES IN COURT—AND IN THE COURT OF PUBLIC OPINION

DEFINITIONS:

High acuity

Urgent medical conditions and priority symptoms

Low acuity

Non-urgent medical conditions and symptoms

Protocol

Standardized questioning tool that differentiates high- and low-acuity cases

Comprehensive system

A protocol, dispatcher certification and training, and review with feedback of handled calls

For example, agencies that do not provide a comprehensive system are vulnerable to lawsuits. A recent study found that there were no cases in which an agency using a comprehensive system was named as the defendant. Conversely, the study found the failure to provide such a system left many agencies liable for the errors made and the people hurt.

In addition, when trained and certified emergency dispatchers do not use a protocol to handle calls, the number of dispatch errors increase. The study found that no dispatcher named as a defendant had used a protocol on the call. In some cases a protocol was available to them, but they did not use it and were unable to deliver care and services as expected.

Dispatch Danger Zones: Danger zones are a known group of common and preventable dispatch errors. The study found

LITIGATION IN ACTION

Two particularly heartbreaking cases demonstrate how concepts have evolved into a standard. These cases involved **multiple dispatch danger zones:** omission of pre-arrival instructions, help not sent, delayed responses, more than one call for help, no standardized system for questioning callers, inadequate emergency dispatcher training, and failure to transfer relevant information.



Brooke Hauser, her mother (Ivette), and her sister (Yvonne)

On March 1, 1990, 14-month-old Brooke Hauser fell into her family's pool in Boca Raton, Florida. Her 13-year-old sister, Yvonne, found her floating in the pool, got her out, and called 911. She pleaded with the emergency dispatcher, "**What should we do?**" as she watched Brooke turn blue, then purple, and blood run out of her nose. No instructions on how to

perform CPR were provided by the emergency dispatcher even though it was obvious he knew it was required to save her.

Paramedics arrived quickly on scene and revived Brooke; however, she lived another 15 months in a vegetative state until she succumbed to pneumonia. Following Brooke's death, her mother, Ivette, discovered that emergency dispatchers at her local emergency dispatch center were prohibited from giving pre-arrival instructions to callers.

In an effort to prevent another tragedy, Ivette sued the city but abandoned her lawsuit once Boca Raton **implemented sweeping changes in their 911 system.** She established **Parents Against Negligent Dispatch Agencies (PANDA)** and became an avid lobbyist for legislation that requires dispatch systems to **provide pre-arrival instructions in life-threatening situations.**

the top three danger zones to be multiple calls made about the same incident, delayed dispatch or response, and poor customer service or mishandling of the call. (For more danger zones, see Figure 3 in the published study cited below.)

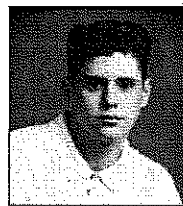
Public Service: Avoiding dispatch danger zones minimizes vulnerability to lawsuits. Lawsuits are costly in time, money, and personnel. Knowing and meeting the standard reserves resources while delivering the highest possible level of service to the public. 🌱

FOR MORE INFORMATION:

- Clawson J et al. "Litigation and Adverse Incidents in Emergency Dispatching." *AEDR*, 2018.

TAKE THE QUIZ FOR CDE CREDIT:

- Go to learn.emergencydispatch.org
- LOGIN with your Username and Password, click COURSES, and click RESEARCH BRIEF



Edward Polec

On November 11, 1994, 16-year-old Edward (Eddie) Polec was murdered in Philadelphia, Pennsylvania. A tragic case of being in the wrong place at the wrong time, he was in a parking lot near St. Cecilia Church when five cars full of teenagers armed with baseball bats spotted him.

About 40 minutes prior, calls to the Philadelphia Police Department had begun pouring in as this gang made their way through the neighborhood vandalizing and provoking fights. The gang caught Eddie on the steps of the church and brutally beat him to death with a bat.

Having witnessed the entire event, Eddie's friend ran to a nearby pay phone and called 911. She was transferred by the emergency dispatcher to an ambulance dispatcher. Although the emergency dispatcher had the exact location of the pay phone in her computer, help was sent to the wrong location. Although the 911 center received over 30 calls that evening, only one police officer (after multiple calls) and one ambulance (after 47 minutes) were sent to respond. **Emergency dispatchers did not have nor were trained to use a standardized system for questioning callers.** Eventually, the police officer sent to investigate one of the initial complaints was flagged down and he radioed for an ambulance. Even after the public's outcry of lost confidence, the Philadelphia Police Department did not make any changes to their 911 system. Eddie's father **demanding systemic changes** by threatening to sue. They made sweeping changes, and he withdrew the suit. 🌱

Call Prioritization Times for Structure Fires in a Fire Priority Dispatch System

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Keywords

fire dispatch, structure fire, Call
Prioritization Time (CPT), emergency
dispatch, Fire Priority Dispatch System™
(FPDS®)

Citation

Dornseif J, Gardett MI, Scott G, Toxopeus C, Grassi R, VanDyke A, Robinson D, Wiggins T, Daubert L, Hutchison M, Crook S, Sipple K, Kalmbach L, Clawson JJ, Olola CH. Call Prioritization Times for structure fires in a Fire Priority Dispatch System. *Annals of Emergency Dispatch & Response*. 2016;4(2):25-30.

ABSTRACT

Introduction: While Structure Fire is not the most common Chief Complaint handled by Emergency Fire Dispatchers (EFDs), the high death toll and other serious consequences that result make structure fires one of the most important types of calls EFDs handle. The time needed to appropriately and effectively prioritize these calls can be evaluated using a time standard called Call Prioritization Time (CPT). In this study, we evaluate CPT for centers using the Fire Priority Dispatch System (FPDS).

Objectives: The primary objective in this study was to determine CPT for the FPDS Structure Fire Chief Complaint Protocol and its constituent dispatch priority levels.

Methods: This retrospective study involved nine emergency communication centers in the USA, accredited by the International Academies of Emergency Dispatch® (IAED™) as Emergency Fire Dispatch Centers of Excellence. The primary endpoints in this study were the percentage of calls prioritized in 15, 30, 45, 60, 75, 90, 105, 120, 135, 150, 165, and 180 seconds, and the median call prioritization time for each priority level.

Results: Overall, a structure fire call was prioritized in a median of 49 seconds. Specifically, ECHO priority-level calls had the fastest median CPT (24 seconds). The difference between prioritizing a DELTA (48 seconds) and a CHARLIE (62 seconds) priority-level call was 14 seconds, with three more questions being processed for the CHARLIE level in those 14 seconds. CPT varied significantly by priority level and specific call type.

Conclusions: To date, this study represents the most detailed information available about how long it takes to gather the information needed to prioritize a structure fire call at dispatch, after the address and phone number have been verified, so that the correct fire resources can be sent.

INTRODUCTION

A residential structure fire is reported in the United States every 85 seconds.¹ While Structure Fire is not the most common Chief Complaint handled by Emergency Fire Dispatchers (EFDs),² the high death toll and other serious consequences that often result make structure fires one of the most important types of calls EFDs handle. According to the U.S. Fire Administration (USFA) and the National Fire Protection Association (NFPA) report, in 2013, of the 1,240,000 fires in the U.S., over 487,500 were structure fires, which in total resulted in 2,855 civilian deaths, 14,075 civilian injuries, and \$9.5 billion in property damage.¹

The time it takes to complete the 911 call prioritization process for structure fires is of great interest to the fire service, since it affects the total response time to an incident, given that the response clock is required to start when the 911 phone line is answered by the EFD. Clearly, getting a fire unit or units to the scene of a structure fire as quickly as possible is a necessity. However, without the critical information gathered during the 911 call prioritization process, fire units will not be dispatched in the

correct response configuration or with complete scene information.

The time needed to appropriately and effectively dispatch these calls can be evaluated using a time standard outlined in previous studies^{3,4} called Call Prioritization Time (CPT). This refers to the time period during which the EFD gathers the information needed to correctly dispatch the call. The CPT measurement begins after address and phone number verification and ends when the determinant (dispatch) code has been assigned. CPT is a key subcomponent of the overall call processing time and provides a measure of how long it takes to gather the information that responders need to appropriately respond to the event.

In this study, we evaluate CPT for centers using the Fire Priority Dispatch System (FPDS). Using the FPDS, an EFD categorizes each incident by selecting a Chief Complaint Protocol, and after gathering answers to each Key Question, assigns a Determinant Code using a systematic alpha-numeric coding matrix that defines the dispatch priority level and a specific Determinant

Descriptor (Fig. 1). The dispatch priority level defines the relative urgency and type of response needed for a given event: ECHO calls are the highest priority level and receive the most immediate response, followed by the DELTA, CHARLIE, BRAVO, and ALPHA priority levels. The Structure Fire Chief Complaint Protocol utilizes only three of these priority levels (ECHO, DELTA, and CHARLIE) because the FPDS never categorizes a reported structure fire in the lower BRAVO or ALPHA priority levels. The Structure Fire Protocol also provides the option for calltakers to add one of two suffixes: O for *Odor of smoke* or T for *Trapped person(s)*. These are added to the dispatch code when appropriate to provide additional information to responders.

OBJECTIVES

The primary objective in this study was to determine the median CPT for the FPDS Structure Fire Chief Complaint Protocol and its constituent dispatch priority levels as a first step toward creating an evidence-based standard for CPT for structure fire calls.

LEVELS	#	DETERMINANT DESCRIPTORS	→ O T	CODES	
E	1	Person on fire (inside)		69-E-1	
	D	1	HIGH LIFE HAZARD		69-D-1
		2	HIGH RISE		69-D-2
		3	COMMERCIAL/INDUSTRIAL building		69-D-3
		4	COMMERCIAL/INDUSTRIAL building with hazardous materials		69-D-4
		5	Residential (multiple)		69-D-5
		6	Residential (single)		69-D-6
		7	Chimney		69-D-7
		8	Large NON-DWELLING building/structure (barn, storage building)		69-D-8
		9	Small NON-DWELLING building/structure (shed, detached garage)		69-D-9
		10	Mobile home, house trailer, portable office		69-D-10
11		Unknown situation (investigation)		69-D-11	
C	1	Appliance (contained)		69-C-1	
	2	Extinguished fire		69-C-2	

→ Determinant Suffixes	
The suffix codes help to delineate the type of problem for specific response and safety purposes:	
O	= Odor of smoke
T	= Trapped person(s)

→ ECHO-only Suffixes	
Person on Fire (Inside)	
The suffix codes identify the type of building/structure involved with a person on fire (inside):	
B	= COMMERCIAL/INDUSTRIAL building with hazardous materials
C	= COMMERCIAL/INDUSTRIAL building
H	= HIGH RISE
L	= HIGH LIFE HAZARD
M	= Residential (multiple)
S	= Residential (single)
U	= Unknown situation (investigation)
W	= Small NON-DWELLING building/structure
X	= Large NON-DWELLING building/structure
Y	= Chimney
Z	= Mobile home, house trailer, portable office

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Figure 1. Determinant Codes and suffixes for Protocol 69: Structure Fire (FPDS v5.0).

METHODS

Design and Setting

This retrospective study involved nine emergency communication centers in the USA, all accredited by the International Academies of Emergency Dispatch (IAED) as Emergency Fire Dispatch Centers of Excellence. The agencies included:

- Guilford Metro 911: Greensboro, NC
- Prince George’s County Public Safety Communications, MD
- Mecklenburg E.M.S. Agency (MEDIC), Charlotte, NC
- Harford County Division of Emergency Operations, MD
- Sarasota County Public Safety Communication Center, FL
- Metro/Nashville Emergency Communication Center, TN
- Union County Emergency Communications, NC
- Kent County Department of Public Safety, DE
- Manatee County Emergency Communication Center, FL.⁴

Study Population

The study sample included all dispatch data collected between 2011 and 2013 at the nine centers, using the FPDS v5.0⁵ (running the ProQA[®] Paramount software engine v5.1).⁶ Anonymous data for the priority levels, Determinant Descriptors, and CPT for all calls assigned to the Structure Fire Chief Complaint were extracted from the ProQA (software version of FPDS)⁵ reporting system.

Outcome Measures

The primary endpoints in this study were the percentage of calls prioritized in 15, 30, 45, 60, 75, 90, 105, 120, 135, 150, 165, and 180 seconds, and the median CPT for each priority level.

Data Analysis

STATA software for Windows[®] (STATA Statistical Software: Release 14.1 ©2015, StataCorp, College Station, TX, USA) was used for data analysis. Cases that had a CPT of greater than 600 seconds were excluded from the study sample. These outliers were excluded after discussion with the agencies determined that times longer than 10 minutes resulted from leaving cases open accidentally or from test calls. The percentage of calls prioritized in 15, 30, 45, 60, 75, 90, 105, 120, 135, 150, 165, and 180 seconds for CC Protocol 69 (Structure Fire) overall, and ECHO, DELTA, and CHARLIE priority levels, including their suffixes, were tabulated. 15-second intervals were selected as being the most commonly used by the reporting agencies, and were included up to 180 seconds to ensure that all calls would be captured within the measured times. The median, minimum, and maximum CPT measurements were also calculated.

Agency	N	FPDS Priority Level: n (%)		
		CHARLIE	DELTA	ECHO
Guilford	3,847	307 (8.0)	3,534 (91.9)	6 (0.16)
Harford	1,485	164 (11.0)	1,321 (88.9)	0
Kent	2,014	242 (12.0)	1,768 (87.8)	4 (0.20)
Manatee	1,325	168 (12.7)	1,155 (87.2)	2 (0.15)
Medic	1,092	111 (10.2)	981 (89.8)	0
Nashville	4,108	825 (20.1)	3,280 (79.8)	3 (0.07)
PGC	7,175	478 (6.7)	6,687 (93.2)	10 (0.14)
Sarasota	1,782	166 (9.3)	1,589 (89.2)	27 (1.5)
Union	1,091	107 (9.8)	983 (90.1)	1 (0.09)
Overall	23,919	2,568 (10.7)	21,298 (89.0)	53 (0.22)

FPDS: Fire Priority Dispatch System

Table 1. Call volume for each agency sorted by priority level.

RESULTS

A total of 23,919 cases were included in this study, after excluding 16 cases that had a CPT greater than 10 minutes. The most commonly used dispatch priority level was DELTA (89.0%) in all agencies. Overall, CHARLIE and ECHO priority level codes were used in 10.7% and 0.22% of all the calls, respectively. A similar pattern was observed by agency (Table 1).

Overall, a structure fire call was prioritized in median of 49 seconds (Table 2). Specifically, an ECHO priority-level call had the fastest median CPT (24 seconds). The difference between prioritizing a DELTA (48 seconds) and a CHARLIE (62 seconds) priority-level call was 14 seconds, with three more questions being processed for the CHARLIE level in the 14 seconds.

Approximately 25.0% of ECHO-level calls were prioritized in 15 seconds, and almost 85.0% in 60 seconds (Fig. 2). The numbers were lower for DELTA-level calls: 0.25% were prioritized within 15 seconds, and 70.3% in 60 seconds. For CHARLIE-level calls, 0.23% were assigned a dispatch code in 15 seconds, and almost 50.0% in 60 seconds. At the 90-second mark, 90% of ECHO

FPDS Priority Level	N	Call Prioritization Time (seconds):
		Median (Q1, Q3)*
ECHO	53	24 (16, 49)
DELTA	21,298	48 (37, 65)
CHARLIE	2,568	62 (48, 83)
Overall	23,919	49 (37, 67)

FPDS = Fire Priority Dispatch System.

*Q1/Q3 = The 25th/75th percentile for median CPT time.

Table 2. Median call prioritization time, categorized by FPDS priority level.

and DELTA calls had been assigned a dispatch code. In 105 seconds, nearly 90.0% of all calls for all three priority levels had been prioritized.

Table 3 shows the median CPT for each Determinant Code, including associated suffixes. Generally, the "T" suffix (*trapped person[s]*) calls tended to have the highest CPT values for each priority level, except for 69-D-7 (*Chimney*) and 69-D-11 (*Unknown situation*), where "T" suffix calls had the shortest CPT values (33 and 50 seconds, respectively).

Among "O" suffix calls and those with no suffix, generally, the 69-C-2 (*Extinguished fire*) and 69-D-4 (*Commercial/Industrial building with hazardous materials*) Determinant Codes had the highest CPT values (62 and 74 seconds, respectively). Conversely, the 69-D-7 (*Chimney*) Determinant Code had the shortest CPT values among the "O" suffix calls and those with no suffix (33 and 42 seconds, respectively).

Otherwise, ignoring calls with very low sample sizes, the 69-D-4 (*Commercial/Industrial building with hazardous materials*) and 69-D-11 (*Unknown situation*) Determinant Codes had the highest CPT values among "T" suffix calls (88 and 84 seconds, respectively). The 69-D-3 (*Commercial/Industrial building*) Determinant Code had the shortest CPT value among the "T" suffix calls (48 seconds).

DISCUSSION

The results of this study demonstrate that fire dispatch agencies using the FPDS are dispatching structure fire calls quickly and efficiently, with higher-priority calls being dispatched fastest. In particular, the ECHO priority level works as designed, with ECHO calls receiving the fastest

median CPT at 24 seconds. Calls assigned DELTA-level codes were dispatched in a median of 48 seconds, with 90.7% of all DELTA-level codes achieving a CPT of less than 90 seconds. Overall, the higher the acuity of the assigned priority level, the shorter the median CPT. However, ECHO codes were used very seldom, as the Structure Fire ECHO codes refer only to "person on fire – inside" events. These calls most often came from residential events, being coded most often as "Residential (single)" structure types. The single residential event was also the most common call type overall.

Two other suffixes, signifying that the caller reported an odor of smoke ("O" suffix) or a person trapped in the structure ("T" suffix), were also seldom used, and in fact cannot be used with the ECHO priority level. The vast majority (n=19,133) of DELTA- and CHARLIE-level calls received no suffix; the "T" suffix was the most commonly used (n=4,035 cases), while the "O" suffix was rare (n=692 cases).

Many agencies and organizations define call processing time as the overall time it takes to dispatch the call, from the moment it "hits the switch" at the call center to the moment the dispatcher alerts the responders, and use it as a metric in determining the efficiency and effectiveness of emergency dispatch. CPT is a key subcomponent of call processing time because it offers a measure of how long it takes, not simply to send a response to an event, but to gather the information necessary to dispatch the appropriate response. For structure fires, this includes the gathering of scene safety information if applicable, as well as information

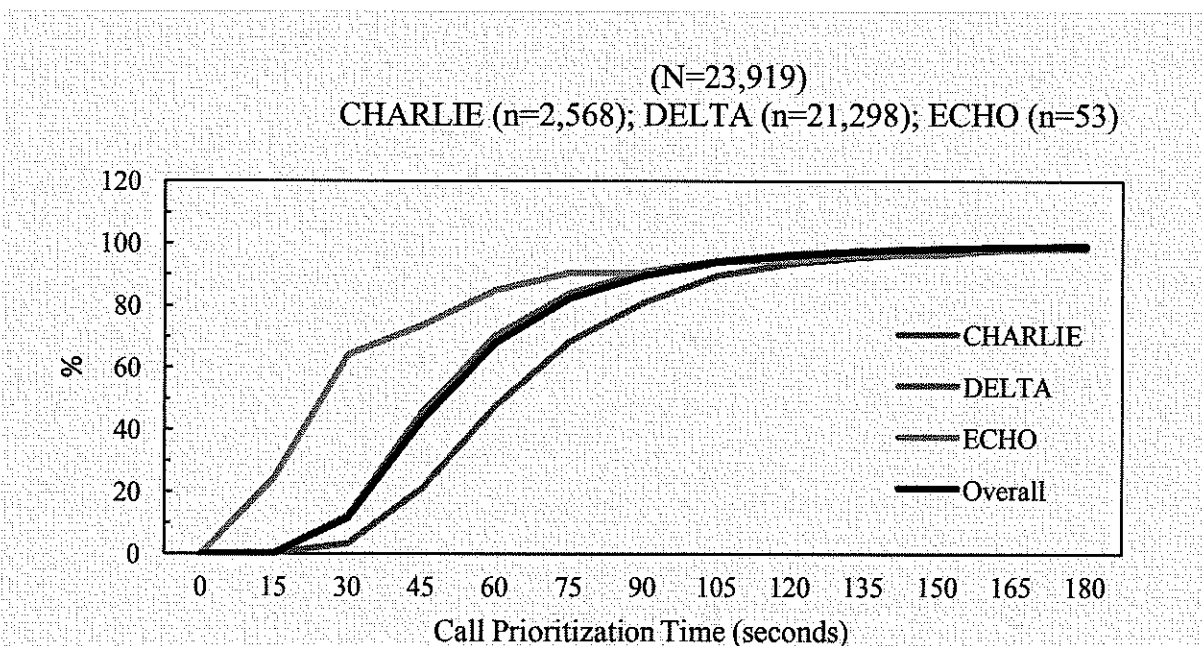


Figure 2. Cumulative frequency distribution of calls for each dispatch priority level at various call prioritization time points.

Determinant Code*	N	No Suffix		"O" Suffix		"T" Suffix	
		n	Median CPT (Q1, Q3) [†]	n	Median CPT (Q1, Q3) [†]	n	Median CPT (Q1, Q3) [†]
69-C-1	1,181	1,078	58 (46,75)	98	67.5 (56,94)	3	80 (33,119)
69-C-2	1,387	925	62 (47,83)	458	73.5 (56,97)	4	44.5 (32,116.5)
CHARLIE	2,568	2,003		556		7	
69-D-1	1,187	881	52 (40,71)	248	57 (43,73)	57	58 (40,90)
69-D-2	308	222	44.5 (34,61)	57	49 (41,64)	28	55.5 (41.5,79)
69-D-3	2,522	2,045	46 (36,63)	445	56 (42,73)	32	48 (39.5,62)
69-D-4	100	81	62 (42,84)	11	74 (64,138)	8	88 (74.5,100.5)
69-D-5	5,102	3,974	46 (36,62)	962	55 (42,71)	164	49 (39,71)
69-D-6	10,053	8,116	45 (35,61)	1,586	54 (42,73)	351	49 (36,67)
69-D-7	408	343	42 (34,56)	53	33 (17,47)	12	43.5 (25,150.5)
69-D-8	193	191	58 (44,82)	1	77 (77,77)	1	100 (100,100)
69-D-9	421	412	57.5 (45.5,79.5)	2	96 (95,97)	7	46 (46,85)
69-D-10	691	588	45 (35,59)	89	55 (43,70)	14	68 (42,75)
69-D-11	313	277	56 (38,78)	25	50 (37,81)	11	84 (52,109)
DELTA	21,298	17,130		3,479		685	
Overall	23,866	19,133		4,035		692	

CPT = Call Prioritization Time. *See Fig. 1 for Determinant Code descriptions. [†]Q1/Q3 = The 25th /75th percentile for median CPT

Table 3. Median call prioritization time for all individual CHARLIE and DELTA Determinant Codes categorized by suffix.

about the type of structure involved, people who may be trapped in the structure, and other critical event details that may affect the type of response or the resources required. Measures such as call processing time and CPT offer important insights into the workings of a protocol-based response system. However, time by itself is not a measure of dispatch success.

That said, a more recent release of the FPDS offers the option for more ECHO-level dispatches for structure fires, meaning that an earlier dispatch point will be available for these calls. Given the results of this study, it is certainly possible that those using the newer FPDS release will experience even faster CPTs for structure fires than are reported here. Future research will compare the new release with this existing data to determine the efficacy of the ECHO-focused Structure Fire Protocol in eliciting faster CPTs.

As of January 2016, the U.S. National Fire Protection Agency (NFPA) promotes a standard call processing time for structure fire incidents that calls for 90% of all structure fire calls to be dispatched within 64 seconds.⁷ Many agencies have adopted this standard as their own, requiring call centers in their jurisdictions to conform

to it. However, there is insufficient evidence to support this standard as meaningful. Very little evidence, in fact, exists to determine what an appropriate call processing or CPT standard might be, and the very limited research that has been done suggests that the current standard is not realistic. A study sponsored by the NFPA itself admits that "to a large extent," the stated time standards "are based on qualitative data, experience, and assumptions and do not have a strong body of empirical data to justify them" and that the data suggest that "these times may be unrealistically short" (p. 3) and may actually cause errors.⁸ Moreover, while the NFPA standard regulates the total time taken to dispatch a call, it makes no reference to the quality of information gathered—whether amount of information, conformity to objectives, or accuracy. Certainly, some information can be gathered after the units have been dispatched; however, information about the type of structure involved, the number of people potentially trapped inside, the number of floors or stories, and so on, can determine the most appropriate response, and gathering that information after responders have already been sent (or notified) may actually cause delays or incomplete response assignments.

CONCLUSIONS

The findings in this study demonstrated that of all structure fire calls handled by the agencies studied, 90% were prioritized (with an assigned FPDS code) within 90 seconds. The highest-priority calls were handled more quickly, with a lower median CPT for higher-acuity calls. To date, this represents the most detailed information available about how long it takes to gather the information needed to dispatch the right resources to the scene of a structure fire, after the address and phone number have been verified. Given the prevalence and devastating power of these events, it is critical to conduct further studies to determine not only the time needed to dispatch calls, but the quality and type of information necessary to ensure the safest, most appropriate response. We hope that this study, and future research on this topic, can lead to true evidence-based standards and expectations, not only for CPT, but for the amount and type of information needed to effectively handle structure fire incidents.

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The Distribution of a Fire Priority Dispatch System's™ Call Incident Types and Priority Levels in Selected U.S. Fire Agencies

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Keywords:

Fire Priority Dispatch Systems, Emergency Fire Dispatch Calls, Dispatch Priority Levels, Fire Differential Response, Fire Incident Data, Fire Dispatch, Determinant Codes, FPDS Call Type Distribution.

ABSTRACT

Introduction: The extent of fire emergencies in our communities is of great concern, not only to the public, but to the nation's fire departments, whose role is not only to respond to them, but to mitigate and, even earlier, to prevent them. The variety of types of fire-related emergencies reported to 911 is of significant interest to this ongoing mandate.

Objectives: The aim of this study was to characterize the distribution of calls handled using a Fire Priority Dispatch System (FPDS™) in the studied agencies.

Methods: This was a retrospective and non-controlled descriptive study involving nine emergency communication centers.

Results: Overall, 205,324 fire calls were handled during the study period. The most commonly used protocol was Protocol 52 (Alarms), which contributed nearly 50% of the total call volume (Fig. 3). The top five protocols were Alarms (52), Outside Fire (67), Structure Fire (69), Citizen Assist/Service Call (53), and Electrical Hazard (55).

Conclusions: Detailed knowledge of the distribution of call types and priority levels can inform fire service planning and operational decisions, including resource allocation and purchase of new apparatus. In the communication center, knowledge of median call type distribution provides the opportunity to track trends and patterns over time and to compare the call distributions of similar agencies.

INTRODUCTION

The extent of fire emergencies in our communities is of great concern, not only to the public, but to the nation's fire departments, whose role is not only to respond to them, but to mitigate and, even earlier, to prevent them. The variety of types of fire-related emergencies reported to 911 is of significant interest to this ongoing mandate. Inherent in this effort is to know the actual numbers and, more specifically, the frequency of the various types of fire response calls that must be evaluated by 911 calltakers, then prioritized, dispatched, and managed remotely until first-arriving crews take command of size-up, scene deployment, and suppression.

Currently four hundred and one (401) 911 dispatch agencies in North America use a structured fire emergency calltaking process known as the Fire Priority Dispatch System (FPDS™).¹ This system utilizes trained and certified emergency fire dispatchers (EFDs) to accomplish the critical tasks of information gathering, call prioritization, determining initial response, and providing caller (critical caller information, post-dispatch, and pre-arrival) instructions. EFDs use standardized, scripted questions to categorize calls by Chief Complaint (CC) (Figure 1) and assign a priority level (Figure 2) and descriptive code (determinant code) to each fire-related 911 event.

Each FPDS Chief Complaint protocol (Fig. 1) handles one call or event type, allowing the calltaker to ask specific questions relevant to the nature of the call and provide safety instructions specific to the situation type or event.¹ The calltaker selects the Chief Complaint based on the caller's response to the Case Entry question, "Okay, tell me exactly what happened." Caller interrogation using the FPDS is based on three priorities: life safety, incident stabilization, and property conservation. Questions dealing with potential life safety issues (whether for callers, bystanders, or responders) are asked first, and other questions elicit information that

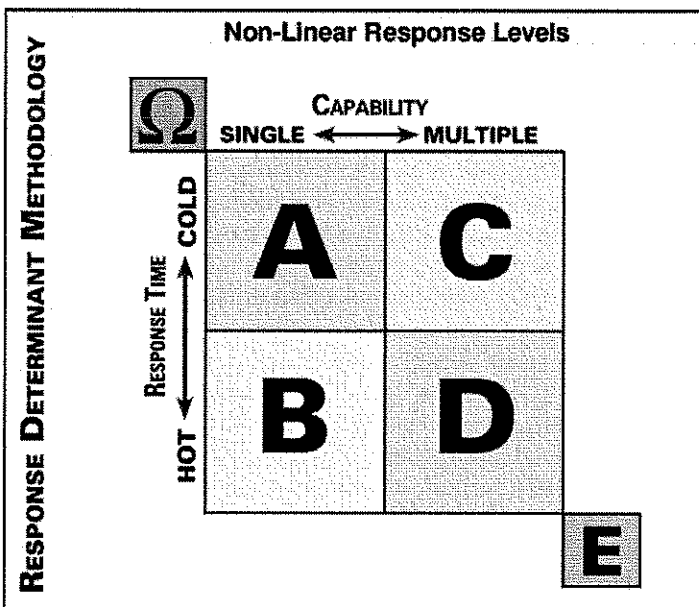
influences the selection of an appropriate type and level of response: structure types, size of the fire if in brush or grass, and so on.

LIST OF PROTOCOLS	
50 Case Entry Protocol	63 Lightning Strike (Investigation)
51 Aircraft Emergency	64 Marine Fire
52 Alarms	65 Mutual Aid / Assist Outside Agency
53 Citizen Assist / Service Call	66 Odor (Suange / Unknown)
54 Confined Space / Structure Collapse	67 Outside Fire
55 Electrical Hazard	68 Smoke Investigation (Outside)
56 Elevator / Escalator Rescue	69 Structure Fire
57 Explosion	70 Train and Rail Collision / Derailment
58 Extrication / Entrapped (Machinery, Vehicle)	71 Vehicle Fire
59 Fuel Spill	72 Water Rescue
60 Gas Leak / Gas Odor (Natural and LP Gases)	73 Watercraft in Distress
61 HAZMAT	74 Suspicious Package (Letter, Item) / Bomb Threat
62 High Angle Rescue (Above or Below Grade)	75 Train and Rail Fire

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Figure 1: The FPDS Chief Complaint Protocols v5.0

Six priority levels (Figure 2) are used to define the relative urgency of the response, and several hundred determinant codes are used to describe the specific nature of the event. The local fire department can use these universal codes to craft its own response plan, including an agency-defined response to each determinant code, based on its individual organizational practices, policies, procedures, and geo-political realities.



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Figure 2: Fire Priority Dispatch System Response Determinant Methodology

Figure 2 illustrates the interrelationship and function of the six priority levels in the FPDS. The highest priority level, the ECHO level, represents the most time-critical cases: those that require an immediate response by the

absolute closest available (and capable) responder and life-saving pre-arrival instructions provided over the phone to the caller. DELTA- and CHARLIE-level cases involve the response of multiple units for the incident and the option of running HOT (lights and sirens) or COLD (no lights and sirens). The decision whether to run HOT or COLD is made by the local fire administration prior to the implementation of the FPDS. DELTA- and CHARLIE-level cases also indicate an immediate need for the fire department and multiple personnel due to their high likelihood of escalating in severity and/or number of victims. BRAVO- and ALPHA-level cases primarily call for single-unit responses, with BRAVO going HOT and ALPHA going COLD. These incidents require firefighting operations but make fewer resource demands on the fire department. OMEGA (O) cases receive little or no response from the fire service. Often, incident information is collected, prioritized, and passed to other agencies, and the fire department never responds. To date, no studies have characterized the distribution of FPDS Chief Complaint protocols and priority levels.

OBJECTIVES

The objective of this study was to characterize the distribution of calls incident types handled using the FPDS in the studied agencies.

METHODS

Design and setting

This was a retrospective and non-controlled descriptive study involving nine emergency communication centers, accredited by the International Academies of Emergency Dispatch (IAED) as Fire Centers of Excellence: Guilford Metro 911, Greensboro, NC, USA; Prince George’s County Public Safety Communications, MD, USA (PG County); Mecklenburg E.M.S. Agency (MEDIC), Charlotte, NC, USA; Harford County Division of Emergency Operations, MD, USA; Sarasota County Public Safety Communication Center, FL, USA; Metro /Nashville Emergency Communication Center, TN, USA; Union County Emergency Communications, NC, USA; Kent County Department of Public Safety, DE, USA; Manatee County Emergency Communication Center, FL, USA.

MEDIC, PG County, Guilford Metro and Metro Nashville agencies all serve populations between 500,000 and 1,000,000 people. All four agencies cover areas of approximately 500 square miles, with Guilford Metro covering 789 square miles. These agencies are primary public safety answering points (PSAP) and dispatch Fire, EMS, and Law Enforcement responses—with the exception of MEDIC, which dispatches Fire and EMS responses only and is a secondary PSAP.

Sarasota, Manatee, Harford, Union, and Kent agencies all serve populations between 150,000 and 400,000. All

five agencies respond to areas between 640 and 900 square miles, with Harford only covering 526 square miles. All five agencies are primary PSAP centers and dispatch Fire, EMS and Law Enforcement responses.

Study population

The study sites were included on the basis of being current users of the FPDS® (version 5.0, August 2009 release) and also Accredited Centers of Excellence with the IAED. The deidentified data were a convenience sample of all fire dispatch data available during the study period from the agencies being studied; the sample involved three years (2011-2013) of data collected using ProQA® (software version of FPDS) from each site. The specific data elements which were extracted from these ProQA reports included, among others: the Chief Complaints (CCs) selected by the EFDs using the ProQA software, the priority level assigned to each call, and the Determinant Descriptors selected for each call.

Outcome measures

The primary endpoints were the frequencies distributions of calls, categorized by the CCs and Priority Levels, as selected by the EFDs in the nine centers.

Data analysis

STATA software for Windows® (STATA Statistical Software: Release 13.1 ©2013, StataCorp, College Station, TX, USA) was used for data analysis. Descriptive statistics such as frequencies and percentages were used in the tabulation of incidents of calls by CC, and Priority Level, by agency, and overall.

RESULTS

Overall, 205,324 fire calls were handled in the nine agencies during the study period. Of these calls, 191 (0.1%) were excluded from the study since call prioritization time (CPT) was five seconds or less (n=39) or more than 10 minutes (n=152). Of the cases that had a CPT of five seconds or less, 84.1% (n=33) were ECHO, 10.3% (n=4) were BRAVO, and 5.1% (n=2) were ALPHA calls. Of the cases that had a CPT of more than 10 minutes, 42.8% (n=65) were BRAVO, 27.0% (n=41) were CHARLIE, 16.4% (n=25) were DELTA, 10.5% (n=16) were ALPHA, 2.0% (n=3) were ECHO, and 1.3% (n=2) were OMEGA calls. The remaining 205,133 (99.9%) calls were included in the study.

Overall, Protocol 52 (Alarms) contributed nearly 50% of the total call volume from the nine agencies (Fig. 3). The top five protocols (i.e., Alarms [52], Outside Fire [67], Structure Fire [69], Citizen Assist/Service Call [53], and Electrical Hazard [55]) contributed 83.6% of the total call volume, while the top 10 protocols (i.e., the top five above plus Vehicle Fire [71], Gas Leak/Gas Odor (Natural and LP Gases) [60], Smoke Investigation (Outside) [68], Elevator/Escalator rescue [56], and Fuel Spill [59]) contributed 97.0% of the total call volume. Analysis by agency showed similar distribution patterns.

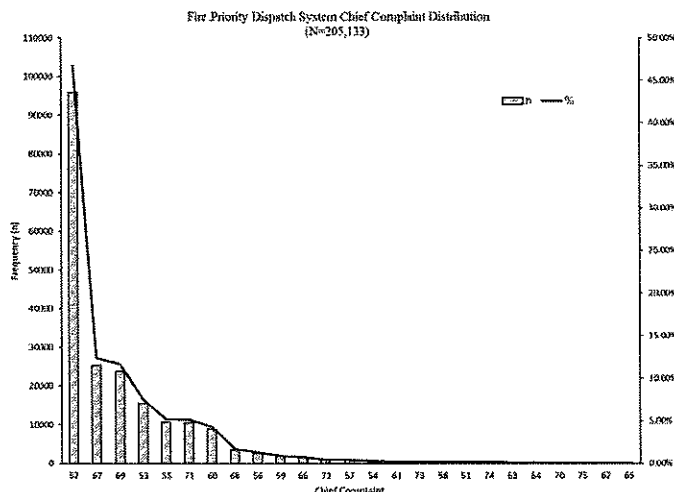


Figure 3: Fire Priority Dispatch System Chief Complaint Distribution

The FPDS BRAVO priority level was the most frequent (35.3%), followed by CHARLIE (35.0%), DELTA (15.7%), ALPHA (9.9%), OMEGA (4.0%), and ECHO (0.2%) priority levels (Table 1). The BRAVO and CHARLIE levels contributed over 70% of the total call volume. Together, the top 3 priority levels (BRAVO, CHARLIE, and DELTA) contributed over 86% of the total call volume.

By agency, PG County had the highest percentage of ALPHA (13.2%) and OMEGA (8.2%) calls. Union, Manatee, Kentucky, and Sarasota had the highest percentage of BRAVO (44.7%), CHARLIE (45.2%), DELTA (21.1%), and ECHO (0.7%), respectively.

Protocols 66 (Odor (Strange/Unknown)) and 53 (Citizen Assist/Service Call) had the highest percentages of ALPHA-level calls (86.4%) and the highest percentage of OMEGA-level calls (19.3%), respectively. Protocol 63 (Lightning Strike (Investigation)) had the highest percentage of BRAVO-level calls (88.7%), while Protocol 74 (Suspicious Package (Letter, Item)/Bomb Threat)) had the highest percentage of CHARLIE-level calls (82.0%), and Protocol 62 (High Angle Rescue (Above or Below Grade)) had the highest percentage of DELTA-level calls (93.5%). Protocol 72 (Water Rescue) had the highest percentage of ECHO calls (19.2%) (Table 2).

DISCUSSION

Protocol 52 (Alarms) was by far the most commonly used FPDS Chief Complaint protocol in the agencies studied. Somewhat unexpectedly, Protocol 67 (Outside Fire) was used slightly more frequently than Protocol 69 (Structure Fire), although structure fires, in the authors' experiences, are often perceived to be the most common fire service calls after alarms. This finding is especially interesting given that the agencies studied were almost all located in the Eastern states of the United States, with no agencies studied from the Western states. Typically—according to sources in multiple fire service agencies—structure fires

Agency	n	Priority level: n (%)					
		OMEGA	ALPHA	BRAVO	CHARLIE	DELTA	ECHO
Guiford	29,157	1,885 (6.5)	2,131 (7.3)	9,574 (32.8)	11,010 (37.8)	4,512 (15.5)	45 (0.15)
Harford	10,496	80 (0.76)	951 (9.1)	4,078 (38.9)	3,368 (32.1)	2,018 (19.2)	1 (0.01)
Kent	10,800	52 (0.48)	904 (8.4)	4,214 (39.0)	3,344 (31.0)	2,278 (21.1)	8 (0.07)
Manatee	13,814	90 (0.65)	1,152 (8.3)	4,631 (33.5)	6,244 (45.2)	1,683 (12.2)	14 (0.1)
MEDIC	9,152	195 (2.1)	648 (7.1)	3,680 (40.2)	3,330 (36.4)	1,296 (14.2)	3 (0.03)
Nashville	42,113	353 (0.84)	3,625 (8.6)	15,091 (35.8)	18,034 (42.8)	4,993 (11.9)	17 (0.04)
PG County	64,955	5,313 (8.2)	8,589 (13.2)	20,743 (31.9)	19,475 (30.0)	10,741 (16.5)	94 (0.14)
Sarasota	16,320	131 (0.8)	1,687 (10.3)	6,629 (40.6)	4,717 (28.9)	3,048 (18.7)	108 (0.66)
Union	8,326	142 (1.7)	665 (8.0)	3,725 (44.7)	2,254 (27.1)	1,532 (18.4)	8 (0.1)
Total	205,133	8,241 (4.0)	20,352 (9.9)	72,365 (35.3)	71,776 (35.0)	32,101 (15.7)	298 (0.15)

Table 1: Call volume distribution for each agency categorized by priority level

are believed to be more common in Eastern states than in Western states (due to older structures, denser population centers, and other factors), so this study suggests that, if Western states were included, outside fires might be found to be even more prevalent than shown here.

Other Chief Complaint protocols that fell higher in the distribution list than expected were Protocol 53 (Citizen Assist/Service Call) and Protocol 60 (Gas Leak/Gas Odor). Citizen Assist calls are part of the larger trend toward using fire responders in medical cases, often as first responders but sometimes, as with Citizen Assist calls, simply to provide manpower or equipment.^{2,3} More critically, given the occurrence of several recent high-profile building explosions, the position of Protocol 60 in the top seven Chief Complaints in the agencies studied may point to a potentially dangerous trend that should be studied further. Longitudinal studies of gas leak call prevalence and outcome, for example, could help confirm or refute the importance of this finding.

The overall median percentage of BRAVO- and CHARLIE-level calls was nearly identical (35.3% and 35.0% of total call volume, respectively), and although this varied somewhat by agency, these two levels combined made up more than 70% of call volume in every agency studied. This is particularly interesting given that 120 of the 278 total Determinant Descriptors in the FPDS (43.2%) are DELTAs, while the CHARLIE (n=46) and BRAVO (n=60) levels combined only contain 106 (36%) of the total available Determinant Descriptors. This might be in some part explained by the fact that DELTA-level calls often deal with high-priority incidents that may require specific, unusual response vehicles, apparatus, or teams. As a result, these DELTA call types are often broken down into

more-specific types by Determinant Descriptor. For example, all but one of the 12 DELTA codes on the Structure Fire Protocol classify various types of structures—but all are structure fire calls. The number of structure fires, then, essentially dictates the number of DELTA determinants on the structure fire Protocol 69, since each determinant is simply a different type of structure fire. The same is true of a number of other protocols. CHARLIE and BRAVO determinants, however, more often describe different types of events, rather than different variations on the same event type.

CONCLUSION

The study findings demonstrated that detailed knowledge of the distribution of call and event types is possible, using the FPDS. This added information can assist fire services with planning and operational decision making, including call response need, crew resource allocation, and even the purchase of new equipment and apparatus (for example, the finding that Outside Fire calls are even more common than Structure Fire calls suggests a potential need for more apparatus specific to outside fires, such as a brush truck). In the communication center, knowledge of call type distribution provides the opportunity to track trends and patterns over time and to compare the call distributions of similar agencies. Knowing which call types are common and which are rare can drive more effective training that focuses on ensuring calltaker proficiency with common calls and preventing loss of familiarity with call types that are rare but potentially serious if mishandled.

CC	n	Prior level: n (%)					
		OMEGA	ALPHA	BRAVO	CHARLIE	DELTA	ECHO
51	295	40 (13.6)	26 (8.8)	4 (1.4)	95 (32.2)	130 (44.1)	*
52	95,904	4,680 (4.9)	*	31,972 (33.3)	59,252 (61.8)	*	*
53	15,454	2,982 (19.3)	9,495 (61.4)	2,387 (15.5)	590 (3.8)	*	*
54	613	*		399 (65.1)	17 (2.8)	197 (32.1)	*
55	10,732	*	834 (7.8)	6,507 (60.6)	3,391 (31.6)	*	*
56	2,650	75 (2.8)	2,220 (83.8)	332 (12.5)	*	23 (0.87)	*
57	852	*	*	703 (82.5)	*	149 (17.5)	*
58	300	29 (9.7)	*	158 (52.7)	*	113 (37.7)	*
59	1,774	*	*	868 (48.9)	906 (51.1)	*	*
60	8,898	*	*	3,022 (34.0)	2,923 (32.9)	2,953 (33.2)	*
61	494	*	36 (7.3)	165 (33.4)	53 (10.7)	240 (48.6)	*
62	92	*	*	6 (6.5)	*	86 (93.5)	*
63	185	*	*	164 (88.7)	21 (11.4)	*	*
64	156	*	*	18 (11.5)	*	138 (88.5)	*
65	53	*	14 (26.4)	28 (52.8)	*	11 (20.8)	*
66	1,556	*	1,345 (86.4)	*	211 (13.6)	*	*
67	25,448	421 (1.7)	3,118 (12.3)	18,087 (71.1)	*	3,745 (14.7)	77 (0.30)
68	3,461	*	2,660 (76.9)	*	801 (23.1)	*	*
69	23,919	*	*	*	2,568 (10.7)	21,298 (89.0)	53 (0.22)
70	118	*	*	*	10 (8.5)	108 (91.5)	*
71	10,607	*	576 (5.4)	7,301 (68.8)	706 (6.7)	2,024 (19.1)	*
72	876	*	12 (1.4)	77 (8.8)	*	619 (70.7)	168 (19.2)
73	324	*	*	135 (41.7)	*	189 (58.3)	*
74	278	*	16 (5.8)	32 (11.5)	228 (82.0)	2 (0.72)	*
75	94	14 (14.9)	*	*	4 (4.3)	76 (80.9)	*
Total	205,133	8,241 (4.0)	20,352 (9.9)	72,365 (35.3)	71,776 (35.0)	32,101 (15.7)	298 (0.15)

CC: Chief Complaint protocol *No data

Table 2: Call volume distribution for each chief complaint protocol categorized by priority level

An increase in the use of data to drive decision-making in the fire service has encouraged fire dispatch centers to adopt dispatch practices that include a standardized process for gathering key information and assigning a specific FPDS code (Determinant Descriptor). These specific codes can help fire services track their incident and call types with precision.

This study represents a baseline for future studies by classifying the distribution of FPDS Chief Complaint protocols and priority levels in nine accredited agencies. Alarms was the most frequent Chief Complaint protocol used, followed by Outside Fire, Structure Fire, Citizen Assist/Service Call, and Electrical Hazard. BRAVO was the most frequent priority level, followed closely by

CHARLIE, then DELTA. Future research should examine differences in distribution frequency among agencies and geographic regions.

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Predicting the Need for Extrication in Traffic Accidents Reported to 911: Is Anyone Pinned/Trapped?

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Keywords

Extrication, SEMI, Head-on, Mechanism of injury, Motor vehicle accidents, MVA, Traffic accidents

Citation

Davis C, Dodson P, Pore C, Sangaraju S, Broadbent M, Scott G, Gardett I, Olola C. Predicting the need for extrication in traffic accidents reported to 911: is anyone pinned/trapped? *Ann Emerg Dispatch & Response*. 2018;6(3):5-9.

ABSTRACT

Introduction: Extrication activities at the scene of motor vehicle accidents (MVA) result in extended scene times and increase morbidity and mortality. Identifying the need for extrication-capable resources during the 911 call-taking process, and dispatching them without delay, is crucial to delivering the required response and patient care. Determining the need for extrication using the Traffic/Transport Incidents Protocol in the Medical Priority Dispatch System (MPDS®) (version 13.0 ©2000-2015, Priority Dispatch, Salt Lake City, Utah, USA) currently relies on the 911 caller's answer to a single key question in the protocol: "Is anyone pinned (trapped)?"

Objectives: The aim of this study was to evaluate how accurate current 911 practices are in recognizing pins and entrapments resulting from MVAs. Additionally, the study sought to identify whether a Head-On (HO) MVA or an MVA with Semi-Tractor Trailer (Semi) involvement should warrant the immediate assignment of specialized extrication resources.

Methods: This was a retrospective descriptive study of all MVA cases in three Kansas counties (Butler, Sedgwick, and Johnson), encountered from January 1, 2016, through June 30, 2017. 911 calltakers in the study population utilize the MPDS Protocols to triage MVA calls. Traffic accident data was extracted from ProQA and matched with CAD records.

Results: A total of 985 calls were analyzed, of which 218 (22.1%) required extrication and 267 (27.1%) involved Semi/HO—as documented by responders. Of the 218 cases that required extrication, 123 (56.4%) were reported pinned at dispatch and 21 (9.6%) involved Semi/head-on—15 of which were already captured by the pinned Key Question. Of the 267 cases that involved a Semi/HO, 21 (7.9%) required extrication. Of the cases that were initially reported pinned at dispatch, 123 (32.3%) required extrication by responders; and of the cases initially reported not pinned at dispatch, 59 (11.4%) required extrication by responders.

Conclusions: A "yes" answer to the protocol key question "Is anyone pinned (trapped)?" is a better predictor of extrication by responders for MVAs than is the presence of Semi/head-on involvement. Further research should examine whether High Mechanism and Major Incident determinant suffixes will capture additional extrication incidents.

INTRODUCTION

According to the National Safety Council, in 2017, nearly "4.57 million people were injured seriously enough to require medical attention in motor vehicle crashes", and over 40,000 lives were lost.¹ One goal of any prehospital healthcare system is to decrease the morbidity and mortality (M&M) associated with motor vehicle accidents (MVAs). The prompt provision of emergency care and rapid movement of injured victims from the scene of injury to an acute-care facility—often a designated trauma center—can save lives, reduce the incidence of short-term disability, and dramatically improve long-term outcomes.^{2,3}

To this end, in 2011 the Center for Disease Control (CDC) released updated Guidelines for Field Triage of Injured Patients.⁴ These guidelines provide a roadmap for Emergency Medical Service (EMS) providers to assist in identifying Trauma Center Need (TCN). Prolonged extrication is a major limiting factor inhibiting quick transfer from the scene to a trauma center. A report by Isenberg et al.⁵ suggests that refining the

CDC Guidelines for Field Triage of Injured Patients by replacing the vehicle intrusion criterion with an entrapment criterion would improve the guidelines' ability to predict TCN. Stuke et al.⁶ similarly reported the finding that inclusion of extrication time greater than 20 minutes was a positive predictor of TCN.

Since the need for vehicle extrication services alone is a predictor of fatality and severity of injuries,⁷ identifying the need for vehicle extrication services early in the event is a must in the pursuit to decrease M&M associated with motor vehicle accidents. While the CDC guidelines assist EMS in TCN determination once on scene, they do not assist in identifying the need for specialized vehicle extrication resources. In many areas, extrication capable units are not automatically dispatched to every injury MVA, but instead these limited resources are assigned only when evidence of pins or entrapments are present. A key opportunity available to help identify this need occurs in the 911 calltaking process. The Medical Priority Dispatch System (MPDS®) requires the Emergency Medical Dispatcher (EMD) in Protocol 29: Traffic/Transportation Incidents (P29) to ask the key question, "Is anyone pinned (trapped)." Determining the presence of pinned (trapped) patients in the 911 center is a crucial factor in rapid response of these specialized resources.

Emergency Communication Centers (ECCs) have been traditionally overlooked as having an integral role in the decrease of M&M for vehicle accidents. Yet the ECC's role in assigning the correct emergency resources can be pivotal, particularly when extrication need can be predicted with reasonable confidence.

OBJECTIVES

The objective of this study was to evaluate how accurate current 911 practices are in recognizing pins and entrapments resulting from MVAs. Additionally, the study sought to identify whether a Head-On (HO) MVA or an MVA with Semi-Tractor Trailer (Semi) involvement should warrant the immediate assignment of specialized extrication resources.

METHODS

Design and Settings

This was a descriptive study designed to retrospectively analyze all MVA cases in three Kansas counties: Butler, Sedgwick, and Johnson. The data was extracted from cases encountered from January 1, 2016 to June 30, 2017. The 911 calltakers/EMDs in these jurisdictions utilized the MPDS® Protocols to triage calls.

Butler County Emergency Communications Center

Established in 1995, the Butler County Emergency Communications Center (ECC) is the primary answering point (PSAP) for 18 emergency response departments throughout Butler County. It dispatches more than 50,000 calls for service each year. The ECC also shares these responsibilities with neighboring centers to serve five fire departments whose districts cross 911 boundaries.

Sedgwick County Emergency Communications

Sedgwick County was founded in 1867. Since then, it has expanded to include 20 cities, including county seat Wichita—the largest city in Kansas—and the county has a population of over 500,000.

Johnson County Emergency Communications Center

Johnson County ECC is a secondary Public Safety Answering Point (PSAP) that dispatches for the ALS ambulance service and ten fire departments. Johnson County has an approximate population of 500,000 residents and covers approximately 500 square miles. Johnson County processes about 40,000 medical calls per year.

Study population

The study population included all cases where extrication was used on the scene of the emergency, and all the cases that were handled using the Traffic/Transportation Incidents Chief Complaint Protocol (29) and recorded as pinned(trapped) victims (29-D-5 determinant code). The study sample also included all cases that were recorded in the Computer-Aided Dispatch (CAD) system as having involved either a Semi-Tractor trailer or a head-on collision.

Outcome measures

The outcome measures were the number of (a) cases that had a "yes" answer to the "pinned (trapped) Key Question in ProQA®," the software version of the MPDS, and extrication equipment actually used, as reported in the CAD record, (b) CAD cases where extrication equipment was used for an injury traffic accident involving a semi-tractor trailer or head-on collision, as reported in the CAD record.

Data analysis

R for statistical computing software (version 3.5.1, ©2018, R Foundation for Statistical Computing, Vienna, Austria) was used for data analysis. All the CAD and corresponding ProQA cases that involved traffic accidents were linked using the ProQA incident number. Using the matched cases, the extrication and Semi/HO involvement statuses, including the ProQA Key Question "Is anyone pinned (trapped)" answer responses, were presented using descriptive statistics such as frequencies and percentages.

RESULTS

A total of 168,101 ProQA and 3,268 CAD cases were collected, of which 985 calls met the study criteria. Of the 985 cases analyzed, 218 (22.1%) required extrication and 267 (27.1%) involved Semi/HO—as documented by responders (Fig. 1).

Overall, as recorded by the EMD, the "no" answer response to the "Is anyone pinned (trapped)?" KQ (n=516) was 88.6% of the time correct that no extrication was required (Fig. 2). Conversely, for the "yes" answer response to the KQ (n=381), 67.7% did not require extrication on scene.

Of the 218 cases that required extrication, 123 (56.4%) were reported "pinned" at dispatch (Fig. 3). However, among 767 cases

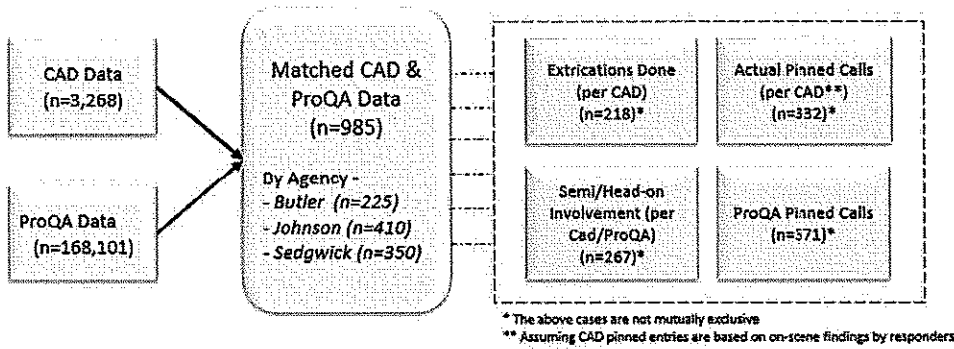


Figure 1. Study sample

where extrication was not done, a 59.6% majority were reported “not pinned” at dispatch.

Overall, of the 267 cases that involved a Semi/HO, only 21 (7.9%) required extrication—15 of which were already captured by the pinned Key Question (Fig. 4). However, of the 718 cases where a Semi/HO was not involved, 27.4% required extrication.

Of the 21 cases where a Semi/HO was involved and extrication was done, 71.4% were initially reported pinned at dispatch, compared to 54.8% among the 197 cases that did not involve a Semi/HO but required extrication (Table 1).

Additionally, of the 246 cases where a Semi/HO was involved but extrication was not required, only 6.5% were initially reported pinned at dispatch, compared to 46.3% among the 197 cases that neither involved a Semi/HO nor required extrication.

Extractions Outcome from ProQA Pinned Key Question Response (N=985)

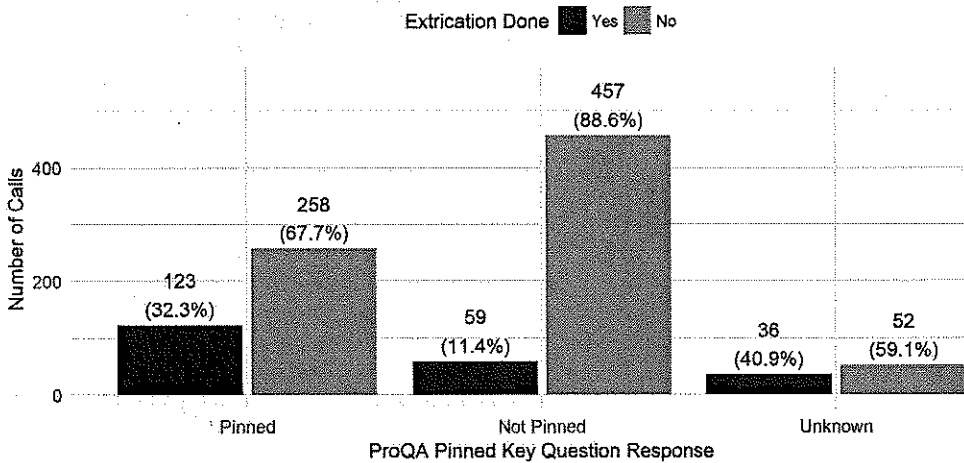


Figure 2. Extrication status of calls by ProQA Key Question answer responses

DISCUSSION

Several variables can impact the accuracy of information gathered during the 911 calltaking process, including the EMD’s compliance to protocol and the reliability of the information provided by the caller. Further, 3rd-party callers who are not directly on scene may not have all the necessary information to accurately answer the Key Questions asked by the EMD.

On one hand, over half of all extrications were identified during the calltaking process, using the answer to a single Key Question as the identifier (“Is the patient pinned (trapped)?”) This supports the practice of sending specialized vehicle extrication resources to the scene with the initial page, when this Key Question indicates pinned. On the other hand, when callers answer “yes,” they are only right about three out of every ten times. In some systems, this may justify waiting until first responders arrive on scene and identify an extrication

Extrication Done (N=218)

Extrication Not Done (N=767)

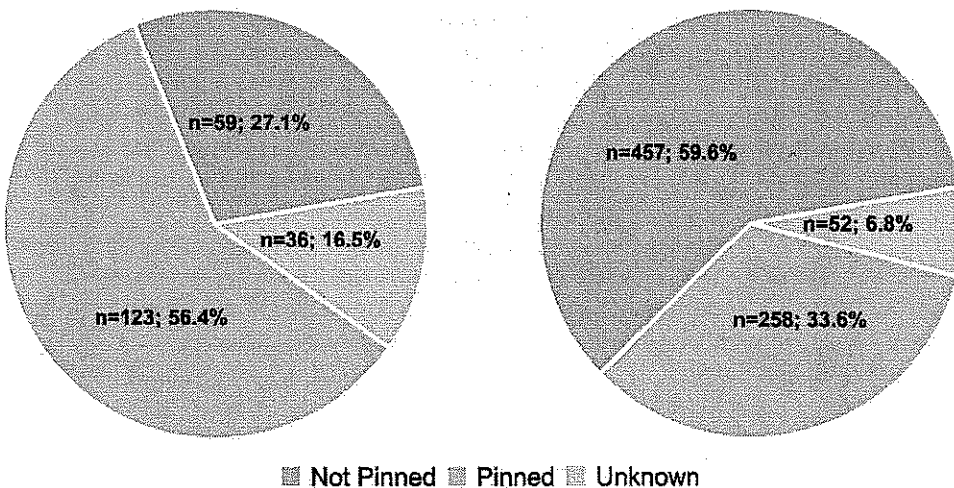


Figure 3. ProQA KQ answer responses categorized by extrication status of cases

Extractions Outcome with Semi/Head-on Involvement (N=985)

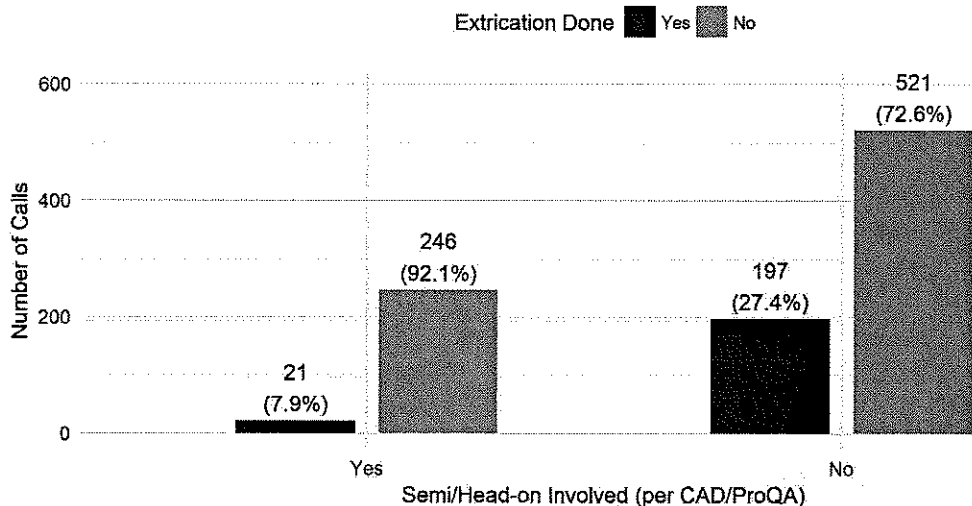


Figure 4. Extrication status of cases that involved a Semi/Head-on.

Extrication status	ProQA answer response	Semi/Head-on involved: n (%)	
		Yes (N=21)	No (N=197)
Yes	Not pinned	3 (14.3)	56 (28.4)
	Pinned	15 (71.4)	108 (54.8)
	Unknown	3 (14.3)	33 (16.8)
No	Not pinned	230 (93.5)	260 (49.9)
	Pinned	16 (6.5)	241 (46.3)
	Unknown	0 (0.0)	20 (3.8)

Table 1. ProQA KQ answer responses categorized by Semi/head-on involvement and extrication statuses

need before dispatching specialized vehicle extrication resources. Local needs and resources, such as availability of rescue equipment, transport times, and crew fatigue, still need to be considered in determining a response plan for these cases.

It's also possible that some callers may correctly report a person pinned at the time of the call while on the phone with 911, to have the patient subsequently "escape" from this predicament, or be freed by bystanders before the first responder unit arrives.

Semi/Head-On

Currently, EMDs classify MVAs involving a Semi or HO collision with a determinant code of 29-D-3: Traffic Accident with HIGH VELOCITY Impact. Our findings suggest that this code is less accurate at predicting extrication, at least in the cases of Semi or HO.

MVAs with Semi or HO involvement appear on sight to be some of the worst MVAs in terms of intrusion and overall damage. Seeing this damage in person or through pictures persuades the viewer to believe these incidents have increased M&M rates. But vehicles today are built to a different standard than in years past. Crumple zones are integral to the safety of

passengers, as they protect the passenger compartment. Visible damage to a vehicle often does not equate to severity of injuries to vehicle occupants.

The findings in this study involving MVAs with Semi or HO involvement supports the need to have the 911 caller look past the visible damage and answer the question "Is anyone pinned (trapped)?" These findings also suggest that the determinant code for "Pinned (trapped) victim" (29-D-5) may be more useful if moved up in the MPDS code hierarchy so that it is higher than 29-D-3 (HIGH VELOCITY impact), at least for pinned patients. Some other results of HIGH VELOCITY collisions may have greater impacts.

Unknown

When the EMD asks the 911 caller, "Is anyone pinned (trapped)" there are three possible answers: yes, no, and unknown. It is not common for the 911 caller to answer "unknown," as demonstrated by this study's results. Most often, when there is incomplete information, it's obtained from 3rd-party callers. These 3rd-party callers may continue driving past the scene, so they do not know if anyone is pinned. Current practices in many ECCs is to only recommend specialized vehicle extrication resources when the 911 caller provides an answer of "Yes", but not when the answer is "No" or "Unknown."

While the "unknown" answer selection was uncommon, it yielded a rather high percentage of cases where extrication was done. This is somewhat concerning, as specialized vehicle extrication resources are often not part of the initial dispatch, meaning they are not requested until an emergency responder arrives on scene and identifies the need for them. Further research is needed to determine if this result is reproducible, or if the small numbers of "unknowns" in this study resulted in a statistical anomaly.

Whether or not an agency chooses to send extrication resources with a response of "unknown" to the pinned question may depend on historical response time averages and the availability of specialty extrication/rescue vehicles and equipment.

Limitations

The biggest limitation was the lack of a defined way to document when extrication was performed in the EMS electronic patient care report (ePCR). The National EMS Information System (NEMIS) does not currently define an element specific to extrication. Since extrication is not defined nationally, the

documentation of patients who are “pinned” and require extrication varies by agency. Most agencies require crews to document the need for extrication in the narrative, but this is not true of all agencies. Agencies also use various terminology to define patients who are pinned and require extrication, with some using abbreviations as well. Further, lack of a defined field also leads to misspellings with manual entry. Having to first define how each agency documents the need for extrication and then searching the narratives creates a major limitation. The authors would recommend NEMSIS adding and defining an element for a pin that requires extrication. Adding this element would enhance the ability for future research involving these patients.

Due to the limitation mentioned above, there is also a limitation on the number of overall incidents. While the three agencies involved have a combined annual call volume greater than 100,000, there were only 985 records meeting the study criteria. One way to increase the overall data pool in the future would be the addition of more agencies or the implementation of the recommendation above.

CONCLUSIONS

The findings in this study demonstrated that the dispatch Key Question “Is anyone pinned (trapped)?” answer is a better predictor for extrication requirement among MVA cases than Semi/Head-on involvement. Each ECC should work directly with their local resources to identify the best response recommendations based on the availability of specialized vehicle extrication resources. This study provides data to assist in making these determinations. Specifically, MVAs involving Semi or HO involvement do not support the EMD overriding the protocol for a couple of reasons: one, the morbidity and mortality of the passengers often does not correlate with the damage of the vehicle, and two, the findings show that the key question “Is anyone pinned (trapped)?” accurately identifies patients requiring extrication when Semi or HO involvement occurs.

The results may support changing the current MPDS determinant code hierarchy to an order that places the pinned (trapped) determinant code (29-D-5) above that of HIGH VELOCITY impact (29-D-3). It is also recommended NEMSIS add and define an element allowing the EMS crew to identify pinned situations requiring extrication. The addition of this element would enhance the ability for future research involving these patients. Further research, with larger sample size collected from diverse regions, is needed to validate these findings.

ACKNOWLEDGEMENTS

The study investigators would like to thank Laura Meyers, Deputy Director, Sedgwick County ECC, Wichita, KS, USA; and Dawn Faudere, Quality Assurance Supervisor, Johnson ECC, KS, USA; for providing approval for data from their agencies to be studied. The same goes to various staff at Butler County ECC and EMS.

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Volume 6 | Issue 2s | 2018

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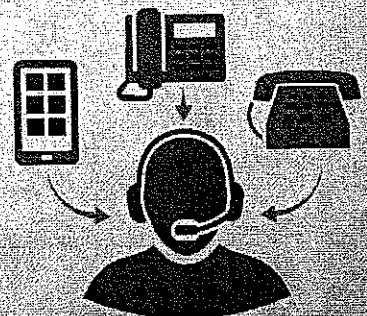
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The Official Research Journal of the International Academies of Emergency Dispatch

SPECIAL REPORT

Litigation and Adverse Incidents in Emergency Dispatching

*Jeff Clawson, MD; Denise Jorgensen; Audrey Fraizer; Isabel Gardett, PhD; Greg Scott, MBA, EMD-QI; Brent Hawkins, JD;
W. Ann Maggiore, JD, NRP; Christopher Olola, PhD*



AEDRjournal.org
ISSN 2326-6848 (Online)
ISSN 2326-6856 (Print)

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Litigation and Adverse Incidents in Emergency Dispatching

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Keywords

Litigation, Lawsuits, Legal Obligations, Negligence, Abandonment, Adverse Incidents, Defendant, Plaintiff, Allegations, Emergency Dispatch Protocols, Pre-Arrival Instructions (PAIs), Priority Dispatch.

Citation

Clawson J, Jorgensen D, Fraizer A, Gardett I, Scott G, Hawkins B, Maggiore, Olola C. Litigation and adverse incidents in emergency dispatching. *Ann Emerg Dispatch & Response*. 2018; 6 (2s):3-11.

ABSTRACT

Introduction: Risk management is an area of critical importance for emergency services and public safety agencies, including emergency communication centers. However, almost no information currently exists regarding litigation against, or involving, emergency dispatch.

Objectives: The primary objective of this study was to characterize the most common types of adverse events, actions, and omissions of action that lead to lawsuits against emergency dispatchers and their agencies.

Methods: The study was a systematic literature review. Research and legal document databases were searched systematically for terms relating to emergency dispatch and litigation. The only data collected were publically available records, including legal documents from state, local, and federal case files, and documents pertaining to dispatch litigation obtained from research and news databases.

Results: 84 dispatch-related legal cases were reviewed, of which five were excluded for various reasons. Multiple (two or more) calls was the most common dispatch problem named as the issue in the suit, followed by delayed dispatch or response, customer service issues or mishandled calls, and failure to provide pre-arrival/post-dispatch instructions. A median \$1 million settlement or decision was awarded to plaintiffs.

Conclusions: This study identified a number of common and preventable dispatch errors that characterize the majority of lawsuits brought against emergency communication centers. Such problems increasingly leave emergency communication centers open to serious legal liability. Our findings indicate that there exists a clear, expected, and enforceable standard of practice for emergency dispatching, and that this standard is increasingly applied by both the courts and the public in judging the actions of emergency communications centers and individual dispatchers.

INTRODUCTION

Risk management is an area of critical importance for emergency services and public safety agencies, including emergency communication centers. As the professional status of emergency dispatchers has risen over the past several decades to match the true complexity and importance of the work, so have expectations regarding the quality of care and service they provide. Activities such as the provision of cardiopulmonary resuscitation (CPR), the Heimlich maneuver, and childbirth instructions over the phone, unheard-of 35 years ago, are now considered standard practice. Such fast-changing standards can raise questions about legality and liability, especially in the context of ever-increasing litigation for malpractice and negligence in other areas of patient care and public safety.

According to the United States Department of Health and Human Services' National Practitioner Data Bank, total payouts for medical malpractice in the U.S. in 2015 topped 3.8 billion dollars.¹ In the same year, lawsuits against just 20 of the largest U.S. cities cost them a combined 24.3 billion dollars,² with New York City alone paying an average of nearly three-quarters of a billion dollars each year between 2013 and 2015. While lawsuits against emergency medical services (EMS) and public safety systems have yet to reach such monumental levels, there is evidence that suits against prehospital providers are increasingly common.³

It has, so far, been unclear whether similar liability issues might apply to emergency dispatching. Some researchers have published reviews of litigation against EMS agencies and prehospital care providers,^{4,5} but these suits involve paramedics, ambulance drivers, emergency medical technicians (EMTs), and other responding

and on-scene response personnel as the key agents in the harm being disputed. Almost no information currently exists regarding litigation against, or involving, emergency dispatch. Understanding the kinds of errors, omissions, breaches in the standard of prehospital care and practice, and other dispatch-related actions or inactions that most often lead to litigation against the dispatcher or dispatch agency can help reduce both legal liability and potential harm to callers, bystanders, civilian rescuers, and responders.

Moreover, understanding the types of dispatch tools in place in agencies that experience lawsuits—especially repeated lawsuits—can help agencies make better decisions about what tools to purchase and how to implement them effectively. In the emergency dispatch environment, a number of different types of dispatch tools are available for handling emergency calls, including protocols, guidelines, and algorithms.

A protocol asks a series of questions based on clinical or other outcome objectives. For example, a question might ask about chest pain *in order* to identify potential myocardial infarctions. In a protocol, in other words, each question is specifically designed to achieve one or more *actionable* dispatch objectives. Questions that don't have any impact on dispatch objectives (triaging and prioritizing the call, identifying safety information for responders, dispatching the right response resources, etc.) are not included because they take up critical time without adding identifiable value. For example, early versions of the Medical Priority Dispatch System (MPDS) included a question for diabetic problems concerning whether the patient regularly took insulin; however, as this turned out, when scientifically evaluated, not to have any effect on any actual dispatch objective, the question was removed in favor of those that determined patient acuity and correct dispatch.

Guidelines and algorithms differ significantly from protocols. A guideline is a form of reference material, generally understood as a resource to be used when the dispatcher sees fit but not mandated or scripted. Generally, guidelines provide prompts rather than scripted questions, such as prompts to "rule out heart attack" or "ask about the presence of chest pain." Guidelines leave much more to each individual calltaker's discretion and provide less direction, standardization, and clinical or legal support, meaning that dispatchers must "remember" or "think of" the specific actions, questions, and instructions to use for each call. This has been derogatorily described as "reinventing the wheel every time the phone rings." Algorithms move in the opposite direction, prompting actions on the basis of each "yes" answer or "hit" in a series of yes/no questions. For example, if an algorithm asks a question about lacerations and gets a "yes" answer from the patient, it will prompt an immediate move to bleeding control instructions without waiting for further clarifying information. The difference between an algorithm and a protocol is that a protocol gathers a complete set of information to achieve its objective (such as prioritizing the call), then makes the determination based on all the information, rather than jumping to action at each "yes" node. For example, if a patient is reported first as having a laceration, the protocol may also go through a series of questions about breathing and alertness that could identify higher-priority problems before moving to the highest-priority instructions.

Identifying both the types of errors and problems that lead to dispatch lawsuits, as well as the types of dispatch tools in place in the agencies that are the targets of those suits, can help emergency communication centers better manage risk, avoid legal challenges, and provide the highest level of service for their constituents.

OBJECTIVES

The primary objective in this study was to characterize the most common types of adverse events or system situations, actions, and omissions of action that lead to lawsuits against emergency dispatchers and their agencies. A secondary objective was to determine which of these types of errors and events or situations lead to successful suits and to determine the specific best practices that most effectively guard against successful litigation.

METHODS

Design and setting

The study was a systematic case law and literature review. Research and legal document databases were searched systematically for terms relating to emergency dispatch and litigation (such as "emergency medical dispatch, emergency dispatch, emergency dispatch training, emergency medical dispatch (EMD), emergency police dispatch (EPD), emergency fire dispatch (EFD), 911 dispatch" and "lawsuit, legal, litigation, malpractice," etc.) The only data collected were publically-available records, including legal documents from state, local, expert, and federal case files, and documents pertaining to dispatch litigation obtained from research and news databases. Newspaper databases (primarily NexusLexus) were also searched for references to dispatch-related litigation, and in some cases, this led to the discovery of additional cases for inclusion. All cases were cross-referenced to multiple sources before being included.

Study population

The study sample included all cases of litigation for which dispatch was one of the points at issue in the lawsuit. Specifically, any lawsuit that met the following criteria was included in the study: (a) The incident occurred in the USA or Canada; (b) Calls were made to a Public Safety Answering Point (PSAP); (c) Dispatch (a dispatcher or a dispatch agency) was specifically involved in, and was a direct cause of, the perceived negligence or action named in the suit.

Additionally, for a case to be included, one or more of the following had to be available: (1) court documents showing that the case was filed and/or went to court; (2) court or legal documents showing that the case was settled in or out of court; (3) depositions or other official documents collected from expert witnesses by the court; (4) multiple news and/or official documents relating to the event and its outcomes.

Data management

The information collected included: date of occurrence; location (city, county, state, province, or country); how the case was heard, e.g., circuit court, appeal, or trial by jury, and whether at the state or federal level; EMD issues(s) involved, e.g., lack of pre-arrival instructions (PAIs), failure to provide PAIs in compliance to the

standards for dispatch practice, or lack of training; final court decision (verdict); monetary damages awarded; punitive damages, if any; and work-related outcomes, e.g., dispatcher being fired or Standard Operating Procedures changing at the agency.

Outcome measures

The primary outcome measure was the specific point or points at issue in each case—i.e., the cause(s) of harm that led to, or were identified by, the litigation—as determined by review of the cases. Secondary outcome measures included: (1) whether any dispatching tool was in place in the agency at the time of the event, and if so, what type; (2) whether that tool was used as intended, including adherence to quality assurance review and training; (3) court-related outcomes, such as whether a guilty verdict or settlement was achieved against the defendant; (4) the type or amount of settlement or damages awarded; and (5) any changes to the defendant’s system following the suit. In this study, “dispatch tool” referred to any guideline, protocol, or algorithm that dispatchers could follow or refer to, or were expected to follow or refer to; these included, for example, card systems that provided prompts for dispatchers to ask about certain symptoms, flow charts for call handling, and other more-or-less formal systems.

It was expected that not all of these outcomes would be available for every case. Any case that met the other inclusion criteria and provided at least the primary outcome was included.

Data analysis

STATA for Windows® software (STATA Statistical Software: Release 14 ©2015, StataCorp, College Station, TX, USA) was used for data analysis. Descriptive statistics were used to describe the study population, categorizing by year of case, status of dispatch tool use and compliance to it, origin of call, caller gender and party type, and victim mortality. Distributions for the most frequent event types, dispatch problems, case allegations, and dispatcher court-related and work-related outcomes were also assessed. Median settlement amount was also estimated, including the 25th and 75th percentiles, categorizing by year of case, nature of the settlement (in or out of court, sealed agreements or open), nature of incident (medical/police/fire), dispatch tool availability and use (yes/no), and victim mortality (died/survived).

RESULTS

Eighty-four dispatch-related legal cases were reviewed, of which five were excluded for various reasons, as shown on Figure 1. Of the remaining 79 (94.0%) cases, a majority (59.5%, n=47) had been initiated from a medical problem. Generally, the number of cases trended upward over the years from 1980 to 2015 (Table 1). Determining whether any dispatch evaluation and/or caller advice tool was in place at the time of the incident proved difficult for some cases, especially those occurring more than ten years ago. For the most accurate achievable information about the tool(s) in use—or lack of tools in use—in each agency at the time of the litigated incident, see Appendix A online. The largest percentage of calls (38.0%, n=30) were handled in the Midwest region of the USA.

Overall, 77 of the 79 cases (97.5%) had multiple calls associated with them; most of the initial calls were made by a first- or second-party caller (78.5%; n=62). A large majority (92.4%, n=73)

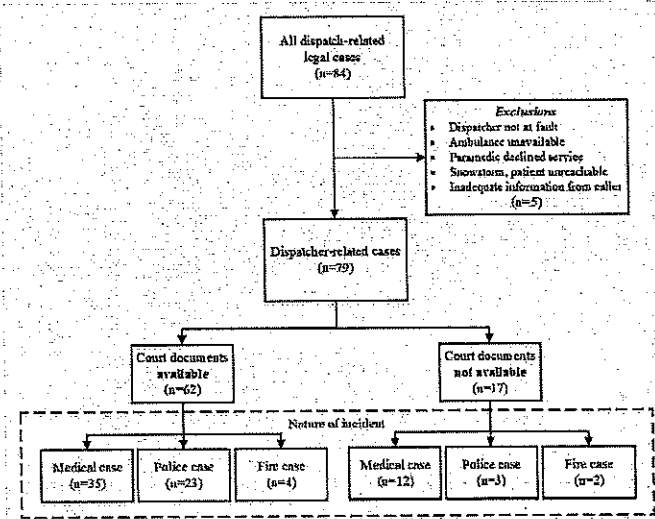


Figure 1. Study cases sampling process

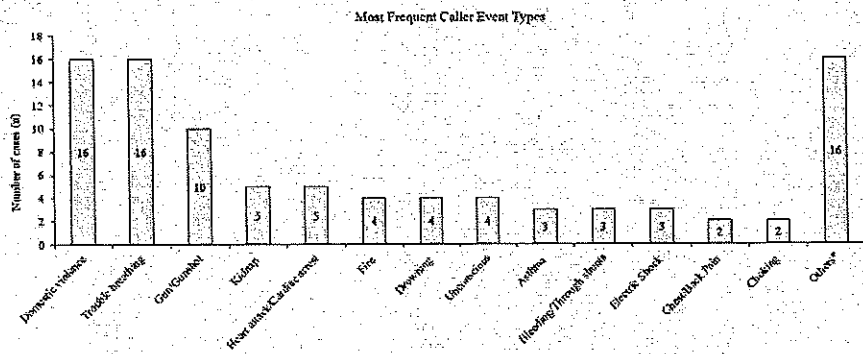
Case Parameter		Cases (N=78) n (%)
Year	1980 – 1989	13 (16.5)
	1990 – 1999	19 (24.1)
	2000 – 2015	47 (59.5)
Call origin (Region)	Midwest	30 (38.0)
	South	19 (24.1)
	West	16 (20.2)
	Northeast	14 (17.7)
Number of calls per incident	1	1 (1.3)
	2 – 3	29 (36.7)
	4 – 5	7 (8.9)
	6 – 7	2 (2.5)
	>7	2 (2.5)
	Unknown	38 (48.1)
Caller party type	Second	39 (49.4)
	First	23 (29.1)
	Third	9 (11.4)
	Others*	8 (10.1)
Mortality	Died at scene or within 24 hours	73 (92.4)
	Survived†	6 (7.6)

*A combination of two or more of the three (first, second, and third) caller party types.
†These survivors include any person(s) who may have died more than 24 hours later.

Table 1. Characteristics of the dispatcher-related cases

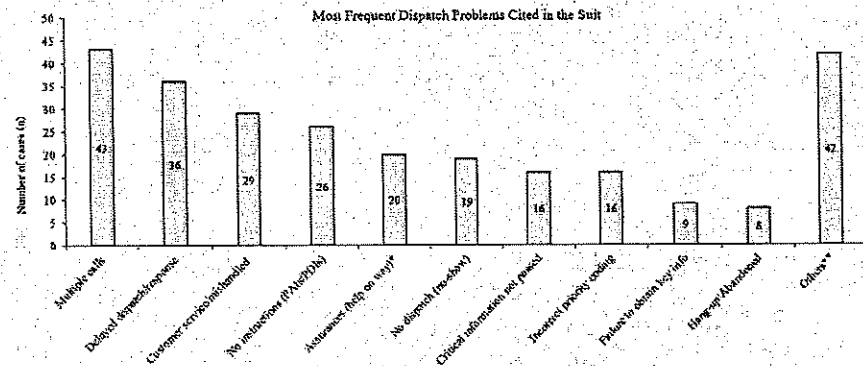
of the cases involved one or more victims who died at scene or within 24 hours, with a total of 94 deaths overall. Domestic violence/domestic abuse and trouble breathing were the most common event types (20.3%, n=16) (Figure 2). The other common events were incidents reported as guns/gunshots (12.7%), kidnapping (6.3%), and heart attack or cardiac arrest (6.3%).

While multiple calls were made for 77 of the 79 calls overall, “multiple calls” was actually named as one of the reasons for a suit being brought in 43 (54.4%) of the cases (Figure 3). The other common dispatch problems included delayed dispatch or response (36 cases—45.6%), customer service issues or mishandled



*Cannot walk, intruder, auto accident, vehicle in water, unable to speak, abdominal pain, hyperventilation, heart problems, "attack" (assault), dizzy/sweating, stabbing.

Figure 2. Most common event types



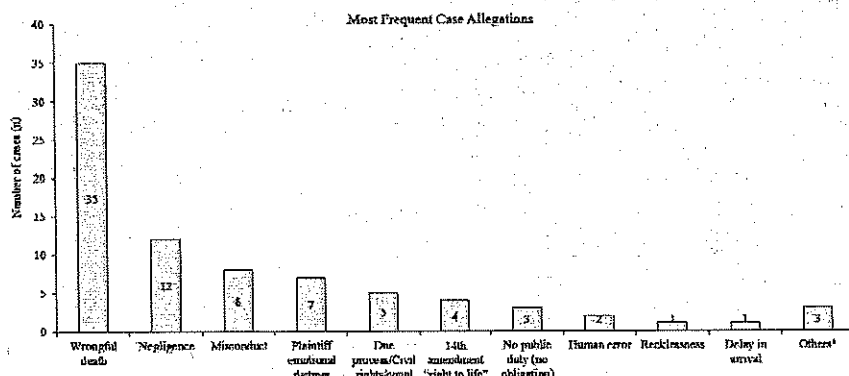
PAI—pre-arrival instructions, **PDI**—post-dispatch instructions

*Counted when referred to by plaintiffs as one reason for the suit, always in conjunction with failure to send and/or delayed response.

**Kept caller on long holds, responders left/wouldn't enter, failure to follow regulations/standard operating procedures, failure to train/improper training, ad lib instructions, wrong address, call transfers, calls not answered at 911, dispatch "diagnosis" of caller's problem, multiple changes in responding units.

Note: Overlaps exist, so cases may have more than one named dispatch problem.

Figure 3. Most common dispatch problems, of those cited as reasons for bringing a suit



† Negligent training and supervision, failure to provide rescue services.

Figure 4. Most frequent case allegations

calls (29 cases—36.7%), and failure to provide adequate pre-arrival/post-dispatch instructions (26 cases—32.9%). In 23 of these cases, no pre-arrival instructions were provided at all; in three cases, "ad-libbed" instructions were provided, and these were deemed inadequate.

Wrongful death was the most common legal allegation against the defendant (35 cases—44.3%) (Figure 4). The other common allegations were negligence (12 cases—15.2%), misconduct (8 cases—10.1%), plaintiff's emotional distress/suffering (7 cases—8.9%), and lack of due process, civil rights, or equal protection (5 cases—6.3%).

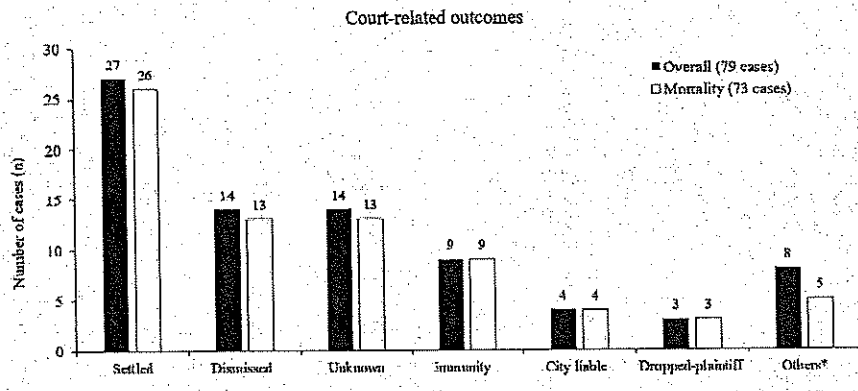
Overall, 35.4% of the cases were either dismissed (n=14) or had an unknown status (n=14); another 34.2% (n=27) reached a settlement, and the dispatcher was determined to have immunity in 9 (11.4%) cases (Figure 5). The city or county of jurisdiction was found liable in 4 (5.1%) of the cases, and the plaintiff dropped 3 (3.8%) of the cases. Of the cases involving the death of the victim or patient, a settlement was reached in 26 (35.6%) of the cases, a case was dismissed 17.8% (n=13) of the time, 17.8% (n=13) of the time court outcome was unknown, and 12.3% (n=9) of the time the dispatcher or agency had immunity.

In a majority of cases (86.1%, n=68), employment-related outcomes (such as a dispatcher being suspended or fired following an incident) were unknown. For cases involving deaths, dispatcher employment-related outcome was unknown for 84.9% (n=62) of the cases, and the dispatcher was either fired or suspended in 8.2% (n=6) of the cases in which a victim died.

Overall, a median US \$1.0 million settlement was awarded to each victim when a settlement was awarded (Table 2). Generally, the monetary settlement amounts have tended to be on an upward trend over the years. The median settlement amount was highest in the West (\$1.5 million) and lowest in the South (\$885,000).

DISCUSSION

Both the public and the courts—through the suits brought against emergency communication centers and the judgments handed down in those suits—have made it clear that there is an existing,



*Investigation ordered, dispatcher not liable, remanded (returned to a lower court), summary judgment issued.
 Note: "Mortality" refers to the number of cases (73) in which at least one death occurred; overall, there were 94 individual deaths.

Figure 5. Court-related case outcomes

response, or finding that no dispatch was made at all were issues in almost every one of the cases reviewed in this study. Failure to dispatch was, for example, the point at issue in one of the most notorious emergency dispatch lawsuits in history, *Lam vs. City of Los Angeles* (1987),⁶ in which a dispatcher decided that the patient's reported symptoms were the result of "hyperventilating" and told her to breathe into a paper bag. When that failed to help, and with worsening symptoms, the patient's family called again, at which point another dispatcher suggested that the patient might have "food poisoning" or "anxiety," and the family should take the patient to the doctor. While trying to get into the car, the patient collapsed. A third call to 911 finally triggered a dispatch, but the dispatcher

expected, and enforceable standard of care and practice in emergency dispatching. Although such suits remain relatively rare compared to, for example, clinical malpractice suits, their numbers are increasing. Moreover, findings about what constitutes effective, appropriate, and defensible emergency dispatch practices are remarkably consistent across all the cases, whether litigated or settled.

hung up without providing any instructions. This case was one of the first to demonstrate not only the problem of failure to send a response, but also many of the other critical problems that have led to litigation against dispatch centers since then, including dispatcher diagnosis, failure to use a protocol, failure to correctly identify a problem as high in severity, failure to provide pre-arrival instructions, not initially responding, and poor customer service. All of these have, in one way or another, been identified as failures to uphold the standard of care and practice for dispatchers in the cases reviewed here. (See online Appendix for complete list of cases and related issues.)

Measure		(N = 24) n	Settlement amount (US\$ in thousands) Median (Q1; Q3)*
Year of case occurrence	1980 - 1989	3	450 (1; 1,700)
	1990 - 1999	8	1,250 (775; 2,200)
	2000 - 2015	14	1,068 (150; 2,000)
Case settlement	In court	18	1,375 (500; 2,300)
	Out of court	6	450 (7.5; 1,500)
	Midwest	11	1,000 (500; 2,700)
	South	4	1,150 (475; 3,500)
	West	5	885 (75; 1,250)
	Northeast	5	1,500 (450; 1,700)
Nature of incident	Medical	16	945 (500; 1,700)
	Police	5	1,250 (450; 2,300)
	Fire	3	753 (5; 1,500)
Mortality	Died w/in 24hrs	24	1,000 (450; 1,700)
	Survived†	0	
Overall		24	1,000 (450; 1,700)

*25th/75th percentiles of the median settlement.
 †Six patients survived longer than 24 hours (two died of related causes within 1-2 years, others suffered long-term injuries); none of these cases received a monetary settlement.

Table 2. Amount paid in case settlements for cases in which settlement amount is known

What is the Standard?

The most obvious standard expressed in these cases is that a call for help must actually generate a response. Having to make multiple calls for the same incident, experiencing delays in the

As in the *Lam* case, dispatcher failure to accurately identify a problem of high severity was at issue in many of the cases. Often, the lack of a protocol to direct the dispatcher in assessing the call and assigning the correct dispatch priority level was cited as one of the reasons for that failure—and one of the direct causes of liability for the defendants. In *Hutcherson vs. the City of Phoenix* (1998),⁷ Chiquita Burt called to report that she feared trouble with her ex-boyfriend, Craig Gardner, who had been threatening and harassing her and her family, and who was now on his way to her location. The dispatcher said she would dispatch an officer, but only as a non-emergency, routine call; she did not believe that the case was serious. Twenty-two minutes after the call was made, Gardner broke into the apartment, where he fatally shot both Burt and her current boyfriend, then killed himself. Not only did a jury determine that the city was liable because the operator had improperly categorized the call as low-priority; they specifically mentioned that a lack of protocol use and resulting improper call prioritization were major factors in their decision to award the plaintiffs \$1.7 million.

Similarly, in *Cukor vs. City of Berkeley* (2012),⁸ a 67-year old man reported an intruder trying to get into his home, and the dispatcher promised to send someone soon. However, because Cukor spoke in a calm tone, the dispatcher assumed there was no serious problem and did not ever request a police officer to respond to the call. In fact, when an officer called-in to say that he could respond, he was told not to go. Cukor was killed by the

intruder, and the city agreed to implement significant changes to the system, which the plaintiffs accepted in lieu of settlement. Providing protocols for dispatchers to follow, and training them in how to correctly use those protocols to differentiate high- and low-acuity cases, is increasingly recognized as one of the elements of the basic standard of practice for emergency dispatch—as in the American Society for Testing and Materials (ASTM) Standard Practice for Emergency Medical Dispatch (ASTM F1258⁹ and F1560¹⁰), which calls for all EMDs to have access to a medical priority dispatching system, in addition to their training. As the National Highway Traffic Safety Administration (NHTSA)¹¹ recognized even in 1996, “dispatch protocols [are] needed to help the dispatcher allocate the appropriate level of help based on medically sound and clinically based decisions.”

In addition to having access to a protocol, dispatchers are expected to know how to use it. In other words, there is an expectation that emergency dispatchers receive training and certification, including continuing dispatch education and recertification to maintain skills. Although training problems and lack of certification were not necessarily listed as named initial complaints, a number of cases identified them as the underlying reasons for the failures named in the suits. In several instances, these suits led directly to changes in system practices. In *McGhee vs. Pasco County (2007)*,¹² for example, the court found serious problems with an agency policy allowing dispatchers to take live emergency calls for a year before receiving certification, as long as they asked a supervisor for help in handling medical calls. In this case, two supervisors (including the lead communications officer) refused to assist the calltaker, who was not trained or certified and could not provide instructions to save the caller’s choking girlfriend, who died. As a direct result of the case, Pasco County began requiring calltakers to become certified EMDs before taking any calls. Interestingly, in *Ma vs. City and County of San Francisco (2002)*,¹³ the training issue was considered so central that the Court of Appeals of the First District of California actually overturned a lower court and imposed liability on the city and county for failure to train dispatchers in the proper use of the calltaking tool being used in the center.

Also very evident in these cases is the expectation that emergency dispatchers must provide a high level of customer service as a basic standard of operations. Such a requirement is broad in application and includes such elements as not questioning the veracity or integrity of the caller, not making assumptions about callers based on prejudices or preconceived notions, and not denying service based on caller behaviors (such as anger or bad words). These types of customer service expectations are not merely “window dressing” or kindness; very often, poor customer service leads to other serious and actionable problems. For example, in *Ma vs. City and County of San Francisco*,¹³ the calltaker (a paramedic) delayed sending an ambulance because she did not believe the caller’s statements and assumed the patient was having a behavioral problem rather than a serious medical condition. The patient was suffering from a severe asthma attack and died as a result of the delay. Similarly, in *Hendon vs. DeKalb County (1992)*,¹⁴ a dispatcher downplayed

the importance of the caller’s serious breathing and speaking problems, accusing him of “playing” on the phone and actually threatening him with jail if that was the case. After keeping him on the line for over 50 minutes, the dispatcher did eventually dispatch police officers to the call, but as a low-priority situation; an officer who arrived at the house reported that the caller “refused” to come to the door—and left. The following day, the caller’s son found him in on the floor in severe distress, having had a stroke, and expert testimony indicated that the delay in the receipt of medical care significantly contributed to his permanent neurological damage. In these and many of the other cases reported in the study, failure to accept caller statements at face value and other serious customer service problems led to negative patient outcomes and significantly increased liability.

Perhaps the clearest standard is the expectation that pre-arrival instructions will be provided, especially in drownings, cardiac arrests, choking, and other cases involving not-breathing patients. Some observers still, even today, express fear that providing CPR and other life-saving instructions over the phone to laypeople might lead to lawsuits, but this study shows the exact opposite. The courts have clearly upheld the idea that such provision is expected as a minimum standard of care; nearly half of all the cases reviewed here involved the failure to provide pre-arrival instructions as one of the litigated issues. *Gant vs. Chicago (2002)*¹⁵ is a particularly egregious example that demonstrates how multiple problems, including the failure to provide pre-arrival instructions, can cause a situation to deteriorate very quickly. In this case, a 19-year-old man died of an asthma attack while waiting for an ambulance after his mother made several attempts to contact 911. The center did not answer the first call, and when a second call was eventually made, the telephone rang 26 times with no answer. Finally, the caller got through to 911, but no pre-arrival instructions were provided. Problems with staffing, lack of training, lack of “call performance standards,” failure to follow the procedures that were in place, and delay in dispatching—as well as obvious problems with customer service—were all in effect in this case, which was settled for \$2.7 million against the agency. However, the immediate cause of the patient’s death, and the reason the family brought the suit, was the failure to provide instructions. This case is also a reminder that CPR instructions are not the only instructions dispatchers must be able to provide; choking, drowning, bleeding, overdose, allergic reactions, environmental hazards, and complications with pregnancy are among the many situations that require some form of instruction for the patient or caller.

Of all the standards implied or stated in the case reports, the requirement to provide pre-arrival instructions is also the most clearly articulated. The American Heart Association¹⁶ has stated that “dispatchers have a unique opportunity to provide a real-time, high-yield intervention” for out-of-hospital cardiac arrest by providing CPR instructions and that dispatcher-assisted CPR should be provided in all cases identified as cardiac arrest.¹⁷ Even earlier, the National Association of EMS Physicians¹⁸ went further in a position statement, referring to the provision of pre-arrival instructions as “a mandatory function of each EMD in a medical

dispatch center" and a "moral necessity." As early as 1990, the original ASTM F-1258 standard⁹ called for the use of "telephone medical intervention" instructions, and in 1996, the National Highway Traffic Safety Administration¹⁰ produced a national standard curriculum for emergency medical dispatch specifically stating that the dispatcher "needs to give verbal instructions over the telephone to the victim or bystander before the crews arrive."

Moreover, the general public expects to receive instructions for any serious medical condition they report, including cardiac arrest, choking, bleeding, and others. One study¹⁹ found that more than 91% of all respondents in an area that was already providing instructions expected to receive them, while another²⁰ found that 87% of all respondents expected instructions even in areas where they were not already provided. As one 13-year-old girl demanded of a dispatcher in Florida when her 18-month-old sister drowned, "Can't you tell me what to do?!"²¹ After years of watching "Rescue 9-1-1" and seeing news stories about some of the more prominent court cases, the public expects to be "told what to do" in all kinds of emergency situations.

Implicit in all of these cases is the expectation that dispatchers will not only collect all relevant information, but also pass it to responders. In *William Clay vs. City of Chicago* (1987),²² for example, 31-year-old Nancy Clay died in a fire because dispatchers failed to communicate to the responding personnel relevant information regarding the conditions of the incident, Clay's location in the building, or the fact that she was trapped. Even after a second call from Clay, now clearly dying on the phone, dispatchers failed to communicate her condition and known actual location within the building. In this case, failures in training were identified in multiple areas, including proper use of the dispatching tool in place, how to elicit information from callers, and how to provide pre-arrival instructions or assistance. The primary issue in the case, though, was the failure to communicate critical caller-provided information to the responders.

One of the most interesting findings of the study was the clear difference between the possession of a dispatch tool in the communication center and the implementation of that tool as part of a comprehensive system. In the majority of cases, no tool was available to dispatchers at all; these cases led to higher settlements overall and included most of the cases for which PAIs were not provided. Not unexpectedly, the court often mentioned the lack of any support tool for emergency dispatchers as an element of liability for the agency. However, the findings in these suits also reflect a clear increase in liability for agencies that have purchased a dispatch tool or made it available to dispatchers, as compared to those who implemented a tool as part of a comprehensive, controlled, standardized emergency dispatching system. In every one of the cases in which a tool was present, dispatchers noted that the tool was simply "around": that it was available, somewhere, for them to use, but its use was neither mandated nor reviewed. The depositions in the cases sound eerily similar, with dispatchers reporting that "some cards" or "a cardset" or "guidecards" were available somewhere in the center but not necessarily knowing where they were located or when to use them. Others reported that while a tool had been purchased

and was used in the center, they personally had never been trained or certified in its use—an oversight named as a specific reason for liability in each of those cases. Indeed, no individual dispatcher defendant had been actually using such a tool when any of these disputed cases occurred, even in centers in which such tools were supposedly available.

The outcomes of these suits suggest that the purchase of a tool is not sufficient. Emergency dispatchers must be individually trained and certified to use the tool and must use it for all cases, not just when they feel like it. They must use it consistently, with consistency and compliance measured regularly through a quality assurance review process.²³⁻²⁵ They must have repeated, ongoing education in the use of the tool and its place in the customer service work of the agency. In other words, the outcomes from these suits indicate a clear differentiation between a *tool* and a *system*;²⁶ while providing emergency dispatchers with a tool is a necessary element of the standard, it is not sufficient to reduce risk for the agency and the community. The tool must be integrated as part of a comprehensive system. Indeed, *no case* could be found in which an agency using a comprehensive system of the type described here was named as the defendant.

It is worth noting that these standards are neither new nor local in their application. In 1994, the National Institutes of Health published an EMD Position Paper²⁷ that outlined the use of protocols, the provision of pre-arrival instructions, and the maintenance of certification through continuing dispatch education as critical requirements for effective emergency dispatch practice. Model legislation for state implementation of training and protocol standards have been in place since at least 2001,^{28,29} and emergency medical dispatch has been identified as a critical component of emergency medical services by agencies as diverse as the American College of Emergency Physicians, the EMS for Children Program at the U.S. Department of Health and Human Services, the National Association of State EMS Directors, the American Society for Testing and Materials, and the National Highway Traffic Safety Administration.

What are the Potential Liabilities?

What is at stake for agencies implicated in not meeting the expected standard of care goes beyond monetary settlements and awards. Emergency communication agencies that engage in problem behaviors lose the trust and support of their communities and local governments, often finding themselves having to reorganize their entire systems to meet the standards following a publicized lawsuit. Many of the agencies named in these suits substantially restructured their emergency response systems following these incidents, implementing protocol tools, training, and quality assurance to ensure that no such problems occurred in the future. Others, however, have not made changes—and as a result, have suffered lawsuit after lawsuit. Chicago, for example, has been sued regarding dispatch issues 12 times since 1987, paying millions in settlements and damages and causing increasing ill will between the city's emergency services and its citizens.

Many of these actions may also leave the dispatch center open to specific legal charges of negligence, abandonment, and

"dispatch malpractice." Negligence is "the failure to provide the degree of care (as defined by a community or national standard) normally associated with a set of circumstances requiring care."³⁰ Forty years ago, emergency dispatch may not have had an articulated standard of care, but that is clearly not the case now. Over and over, the courts have found that the standard, as outlined in training documents, textbooks, position statements, and white papers from dozens of national public safety organizations, is both clear and enforceable. The elements of that standard are defined above; the failure to meet them can lead to findings of wrongful death, negligence, misconduct, recklessness, and even violations of the 14th Amendment.

Abandonment refers to situations in which care is being provided and then is suddenly stopped. It has been defined as "the unilateral termination of the provider/patient relationship at a time when continuing care is still needed."³¹ In other words, for abandonment to occur, the provider of care must terminate that care without the consent of the patient. The failure to provide pre-arrival instructions is the clearest example of dispatcher abandonment. When a caller reports a problem by calling an emergency number, he or she is requesting help. By picking up the line and taking the call, the communication center agrees to provide that help based on accepted or recognized standards, and ending the call while the patient is still in distress and in need of care constitutes abandonment of that patient.

Taken together, these constitute the elements of what can be termed dispatcher malpractice: the failure to meet the standard of care and practice for emergency medical, fire, or police dispatch. As the rise in litigation against emergency communication centers—and the rise in both successful suits and settlement amounts—demonstrates, the courts and the public are increasingly invested in holding emergency dispatch agencies to a standard. In fact, standards are applied even to emergency services personnel in jurisdictions with state-imposed limitations on liability. Even in these states, acts performed "in a grossly negligent manner," "with wanton disregard," and/or "not performed in good faith" can be held liable.³² Many of the cases reviewed here were found to meet that test, particularly when it could be shown that the dispatcher or agency knew, or should have known, the standard of care, but did not follow it.

What Can Emergency Communication Centers Do?

The question for emergency communication center leaders, in light of the findings of this study, is what they can do to avoid litigation and mitigate or avoid risk for the communities they serve. Fortunately, the standard of practice is clear. Agencies must implement protocols with which emergency dispatchers can collect the relevant information for the case, accurately differentiate high- and low-priority calls, and ensure appropriate, timely dispatch, as well as accurate and immediate relay of critical and safety information to responders. In addition, agencies must apply a structured program of quality assurance and quality improvement to ensure that dispatchers comply with protocols and standards.²³ One of the most common themes in the lawsuits was the liability caused by the failure of emergency dispatchers to use protocol tools compliantly. Thus, in addition

to quality assurance, agencies must also provide sufficient training, including ongoing Continuing Dispatch Education, and must ensure that their dispatchers are certified by a nationally qualified certifying body. In several of the lawsuits, lack of certification specifically led to increased damages or increased liability for the agency in question.

In addition, emergency communication centers must provide pre-arrival instructions, not only for telephone CPR but for the broad range of possible emergency situations callers may report. And they must utilize a tool that provides scripted instructions, not simply guidelines, "prompts," "reminders," or training alone. No dispatcher—no human being—can possibly remember all the relevant questions and instructions related to every possible emergency type, no matter how fully they may be trained. Thus, as the National Institutes of Health's "EMD Position Paper" puts it, "it is important that EMD's carefully adhere to protocols for the provision of telephone-instructed treatment in a standard, nonarbitrary, and reproducible way." They go on to make a clear distinction between true pre-arrival instructions and what they term "telephone aid." Telephone aid, they write, is the provision of instructions that are "ad-libbed" by dispatchers, whereas true pre-arrival instructions are scripted and followed essentially verbatim. "Telephone aid," they stress, "may only ensure that the dispatcher has attempted to provide some sort of care to the patient through the caller but does not ensure that such care is correct, standard, and medically effective or even necessary in the first place."²² Only the use of scripted, clinically-driven protocols, supported by regular quality assurance and training, can ensure these necessary outcomes.

Conclusion

It is evident from this first-ever historical review of lawsuits brought against emergency communication centers that there exists a clear, expected, and enforceable standard of practice that is understood, and applied, by both the public and the courts.³³ Organizations ranging from the National Association of EMS Physicians and the American Heart Association to the National Institutes of Health, the National Highway Traffic Safety Administration, and the International Academies of Emergency Dispatch have issued documents that have laid out these standards in detail, starting as early as the late 1980s. Fortunately, there are specific, available preventive measures that can be taken by any agency to avoid all or most of the potential liability, including the implementation of scripted protocols and specific training in their understanding and use, supported by high-functioning quality assurance and quality improvement measures, continuous dispatch education and ongoing training, and certification through a nationally recognized certifying body.

Litigation against emergency communication centers, like all types of malpractice suits, is likely only to increase in the foreseeable future, especially as more and more members of the public become aware of the existing standards and repeatedly demand their correct application to themselves. Agencies without the recommended practices in place should be prepared to defend their practices in court—and in the court of public opinion.

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