



Freestanding Emergency Department – A Stakeholder Study Executive Summary



5/3/17

Exploring the Feasibility of a Freestanding
Emergency Department in Ware, Massachusetts



*UMassMemorial
Medical Center*

Andrew Brunelle, Mina Henes, Alexander Hu, Klajdi Kosovrasti, Brittney Lambert, and Cristina Tavera

Advisor: Dr. Louis Anthony Roberts, Biology and Biotechnology

Sponsor: Dr. Gregory Volturo, Professor of Emergency Medicine; Chairman, Department of Emergency Medicine at UMass Memorial Medical Center

For more information, visit warefed.weebly.com

Main Objective - Increasing Healthcare Access for Rural Massachusetts

The primary purpose of this project is to determine the feasibility and implications of establishing a UMass Memorial Medical Center-operated Freestanding Emergency Department (FED) in Ware, MA. In September of 2016, Baystate Mary Lane Hospital, which is under Baystate Health management, terminated its inpatient services. As a result, the hospital can no longer admit patients. The secondary objective of this project is to explore the financial logistics that led to the closure of Mary Lane inpatient facility and how UMass Memorial Medical Center management can affordably operate an FED in the area. *Since the closure, the facility is referred to as Mary Lane Outpatient Facility, providing only same-day emergency medical care to its patients.* Furthermore, Mary Lane Outpatient Facility is at risk of closing its doors within the next two years. Due to the sensitive political situation, the group was not able to interview Baystate management officials to gather specifics about the circumstances of Mary Lane Outpatient Facility.

As seen in Figure 1 below, there is already insufficient access to healthcare in areas west of Worcester, particularly the two encircled regions. Closure of Mary Lane Outpatient Facility (blue in Figure 1) would create an even larger gap, meaning patients would have to travel extreme distances to receive medical attention, putting their lives at risk in case of emergencies. The closure is expected to be a drastic loss for the community and can create additional safety problems for patients that rely on the services that Mary Lane Outpatient Facility provides.

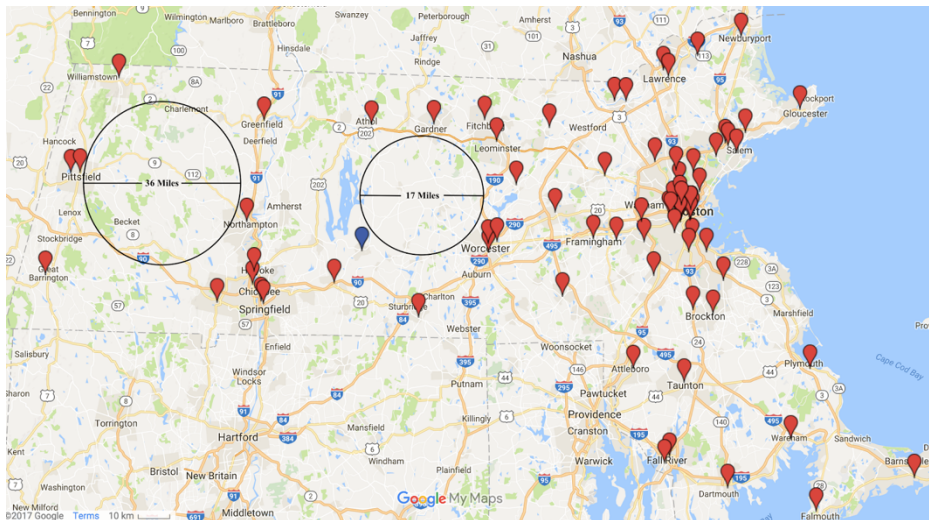


Figure 1: Map of Massachusetts Emergency Departments

Background - Alternatives Available and the Financial Situation of Mary Lane Hospital

The team began by researching alternatives to Emergency Departments (EDs) and considering their benefits and downfalls. Building new hospitals and employing Urgent Care Centers (UCCs) are among the most popular options to increase medical care accessibility. Retail clinics (such as CVS/Pharmacy MinuteClinics) are also being utilized to provide some healthcare access. High startup costs associated with new hospitals and a gap in the scope of practice provided by UCCs and retail clinics limit their effectiveness. A less explored option is a Freestanding Emergency Department (FED). Structurally independent FEDs provide 24/7/365 outpatient emergency care services staffed by certified emergency physicians and registered nurses. FEDs are cheaper to build and maintain than full hospitals due to lack of an inpatient department, and their scope of practice is analogous to that of full hospital EDs. For this reason, FEDs are being

considered as a more viable alternative, financially and qualitatively. Table 1 below summarizes the characteristics of the options mentioned.

Table 1: Emergency Care Alternatives

	Emergency Departments	Urgent Care Centers	Retail Clinics	Freestanding Emergency Departments
Hours of Operation	24/7/365	~7am-8pm (M-F) <small>(Hours and days may vary)</small>	8am-7pm (M-F) 10am-5:30pm (Sat) 9am-5:30pm (Sun)	24/7/365
Scope of Practice	Broad	Limited	Very Limited	Broad
Equipment	Full diagnostic equipment (Imaging, Labs etc.)	Basic diagnostic equipment	Basic diagnostic equipment, diabetes testing, rapid testing	Full diagnostic equipment (Imaging, Labs etc.)
Treatment levels	Handle all acuity levels	Handle minor illnesses/injuries	Handle very minor illnesses/injuries	Handle all acuity levels
Inpatient Services	Yes	No - Often refer critical patients to the ED	No - These clinics are only meant for minor health issues	No – Stabilize and transport critical patients

In order to gain an understanding of the medical needs of Ware and the surrounding towns, the team identified the major stakeholders involved. The three major groups involved are governance, providers, and users. Figure 2 below details the stakeholders in each of the three groups.

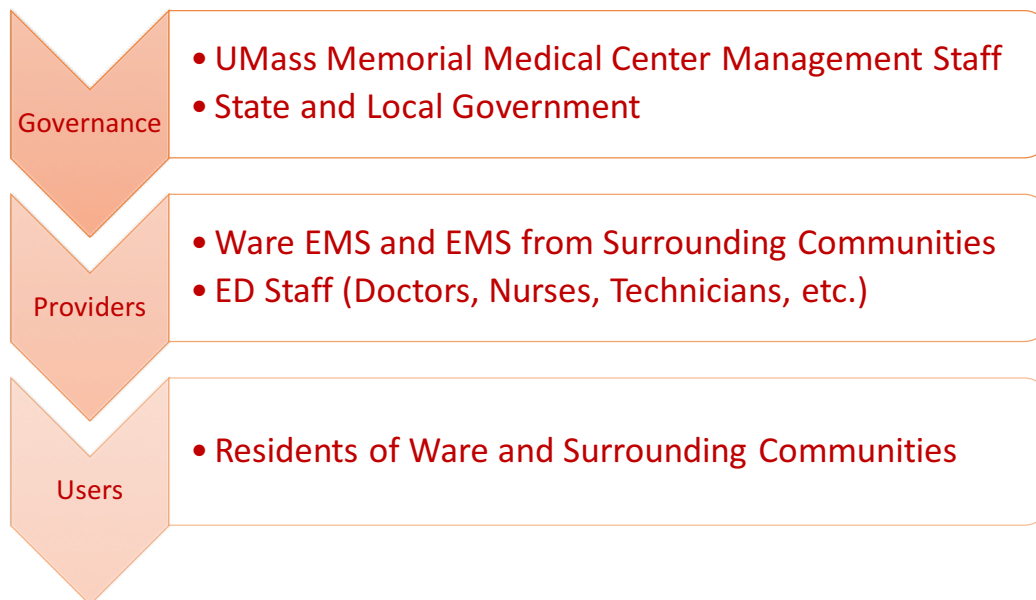


Figure 2: Identified Stakeholders

The decision to suspend inpatient services at Mary Lane Hospital in 2016 and convert the facility into Mary Lane Outpatient Center was a result of its financial status. In 2014, revenue distribution was 32% from inpatient services and 68% from outpatient services. Between 2010 and 2015, Mary Lane reported a loss of \$2,763,000. Table 2 summarizes the changes in total revenue, operating surplus, and total surplus for six Fiscal Years (FY). Total revenue includes two components- *operating revenues*, which are services directly utilized by the patient (i.e. the cost of stay); and *non-operating revenues*, which are revenues including benefits such as funds from local and federal governments. *Operating surplus* includes profit from the services provided to patients. *Total surplus* is the overall profit of the facility. Table 2 shows data solely for Mary Lane Hospital.

Table 2: Financial Status of Mary Lane Hospital, FY 2011-2015 – Loss in Millions

	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Operating Surplus (Loss)	(\$4.0)	(\$1.64)	(\$0.073)	(\$0.8)	(\$1.95)	(\$1.607)
Total Surplus (Loss)	(\$2.9)	(\$1.371)	(\$0.325)	(\$0.559)	(\$1.451)	(\$0.293)
Total Revenue Change	3.1%	-4.6%	1.1%	-2.2%	-5.5%	1.0%

Methods and Results - Interviewing and Surveying Stakeholders, Applying Case Studies

After identifying the stakeholders, the team utilized various methods to gather relevant opinions and data. Interviews and surveys with UMass Memorial Medical Center management staff, medical professionals and patients were used. Unobtrusive measures, ethnography and case studies were also utilized. Figure 3 summarizes the participant breakdown from each of the surveyed stakeholder groups, the target audiences, and approaches utilized during the data collection process.

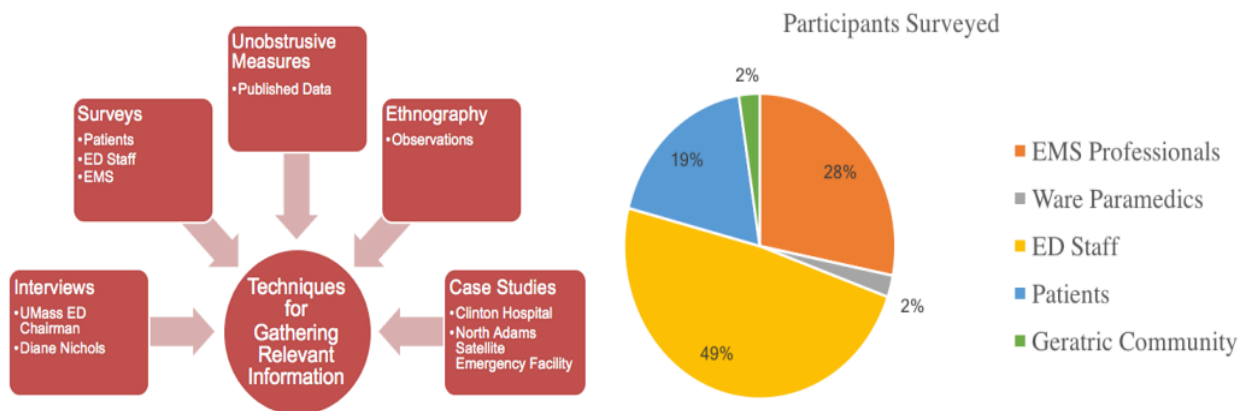


Figure 3: Gathering Relevant Data and Survey Participant Breakdown

After data gathering and analysis, the team was able to understand the overall view of emergency departments and FEDs from ED staff, EMTs/paramedics (EMS) and patients. Both staff and EMS agreed that metropolitan EDs are overcrowded and the patient load can sometimes be overwhelming. This can negatively affect the quality of care provided to each patient, especially those in rural communities. Both audiences agreed that FEDs would be a great addition to rural communities, as they can greatly increase access and reduce transport time. Increased transport

time puts rural patients at higher risk, which is one of many issues that EMS and ED staff face daily.

Some of the concerns expressed by both audiences included the need to transfer patients in critical cases and educating the public about which facility to use for certain emergencies. Overall, the patient surveys revealed great concerns regarding the closure of Mary Lane Outpatient Center. This supports the conclusion that the potential closure is a drastic loss for the community. Local patients indicated that they were not familiar with the concept of an FED, supporting the staff and EMS claim that educational materials are necessary. In an interview with Diane Nichols, the Director of the North Brookfield Senior Center, the need for geriatric services in the community due to the aging population in Ware and surrounding towns was expressed, which reflects the concern of the local senior population.

Conclusions, Deliverables and Recommendations - Feasibility of an FED in Ware, MA

Taking into account all of the research, surveys, and interview results, the team was able to harvest several important conclusions regarding the necessity and importance of emergency care in Ware and surrounding communities. The list below summarizes the important conclusions, deliverables, and recommendations gathered.

Summary of Conclusions, Deliverables, and Recommendations

- A UMass Memorial Medical Center-operated FED in Ware is financially feasible, beneficial for Ware and surrounding communities, and welcomed by the community
- ED staff, patient, and EMS educational materials are needed to educate major stakeholder groups about FEDs and the services provided
- UMass Medical Center management must take care when officially naming the facility to avoid confusion regarding the purpose of all services rendered by the facility
- Patient transport agreements or an FED-operated transport ambulance must be established to streamline the transportation of admitted patients
- FED model recommendations that meet the health demands of all stakeholders were presented to the project sponsor
- A business plan outlining the financial feasibility of the facility was formulated

Overall, the survey and interview results suggests that a UMass Memorial Medical Center-operated FED is financially feasible and welcomed by the residents of Ware and surrounding communities. Educational materials for patients, staff and EMS alike is a major component to ensuring proper education of all stakeholders about the function and purpose of an FED. Throughout the surveys, confusion regarding the name and capability of an FED continuously came up. The team also suggests to be cautious while choosing an official name for the facility, as the term “FED” could generate confusion amongst the public. Also, educational material for the public, such as flyers and mobile applications, would be crucial resources to educate patients on what medical issues FEDs are capable of handling and if their health issues are an appropriate fit

for their local FED. Examples of flyers targeting ED staff, EMS/transport personnel, and the general public were designed by the team to address the need for educational materials.

In the case that Mary Lane Outpatient Facility does close, the team was able to design a model for a new FED. The recommended model was arranged based on the needs of the patients of Ware and surrounding communities. Figure 4 below depicts the model recommended.

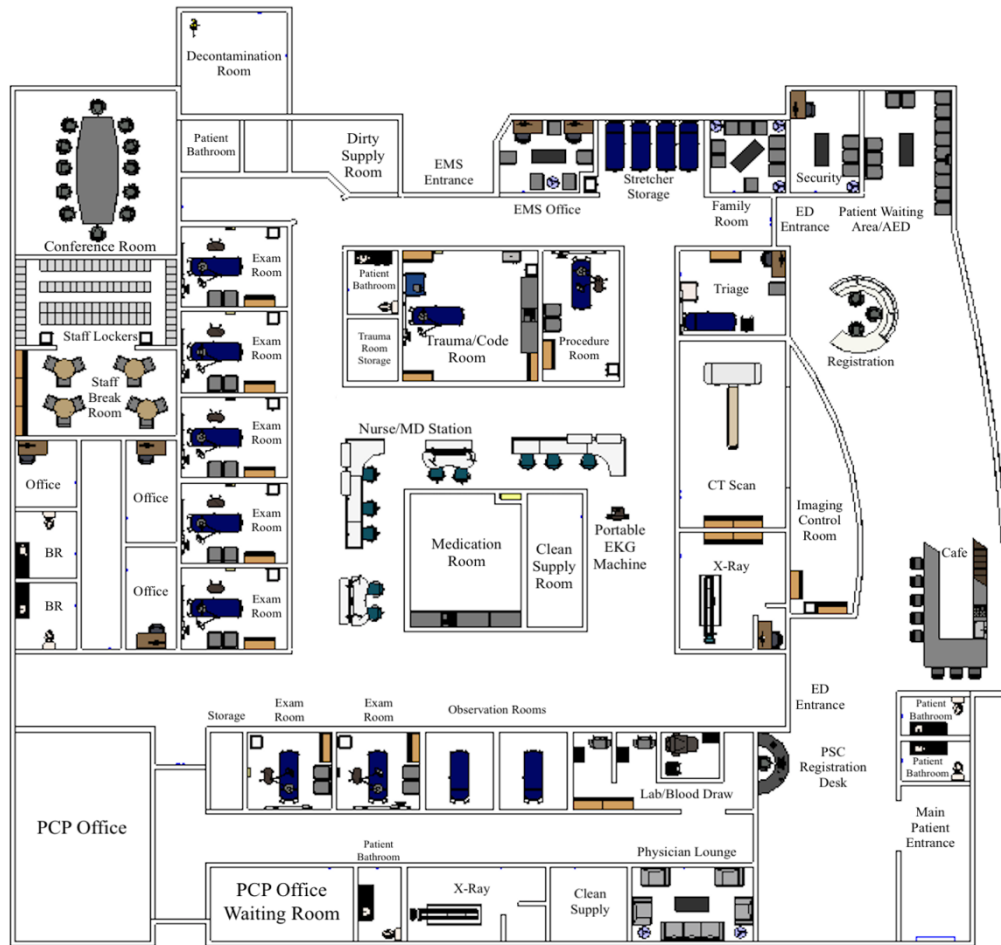


Figure 4: Concept Model for New FED

Lastly, establishing a transport arrangement for critical patients is a must. This can be done through an agreement with EMS from Ware and surrounding towns or by having the new FED operate its own transport ambulance. In the case of critical patients, a quick and efficient transport system needs to be in place, as time is of the essence in a real emergency.

For more information regarding the specifics of the project, methods used and detailed conclusions, please visit our website at www.warefed.weebly.com.