

# Sepsis and EMS Survey



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# Sepsis and EMS Survey

- ▶ Sepsis is the body's overwhelming and life-threatening response to infection which can lead to tissue damage, organ failure, and death.
  - ▶ More than 1.7 million people in the U.S. are diagnosed with sepsis each year - one every 20 seconds.<sup>1</sup>
  - ▶ 270,000 people die from sepsis every year in the U.S. – one every 2 minutes; more than from prostate cancer, breast cancer and AIDS combined. <sup>1,2,3</sup>
  - ▶ Mortality from sepsis increases by as much as 8% for every hour that treatment is delayed. As many as 80% of sepsis deaths could be prevented with rapid diagnosis and treatment.<sup>4</sup>

## Why do EMS practitioners need to know about sepsis?

- ▶ Emergency Medical Services (EMS) personnel transport more than 50% of all sepsis cases to the emergency department (ED).<sup>5,6,7,8</sup>
- ▶ In the U.S., it is estimated EMS providers care for over 60,000 more severe sepsis patients each year than they do for heart attack and stroke patients combined.<sup>6</sup>
- ▶ EMS personnel frequently represent the first medical contact for sepsis patients since as many as 87% of sepsis cases start in the community, prior to hospitalization.<sup>1</sup>

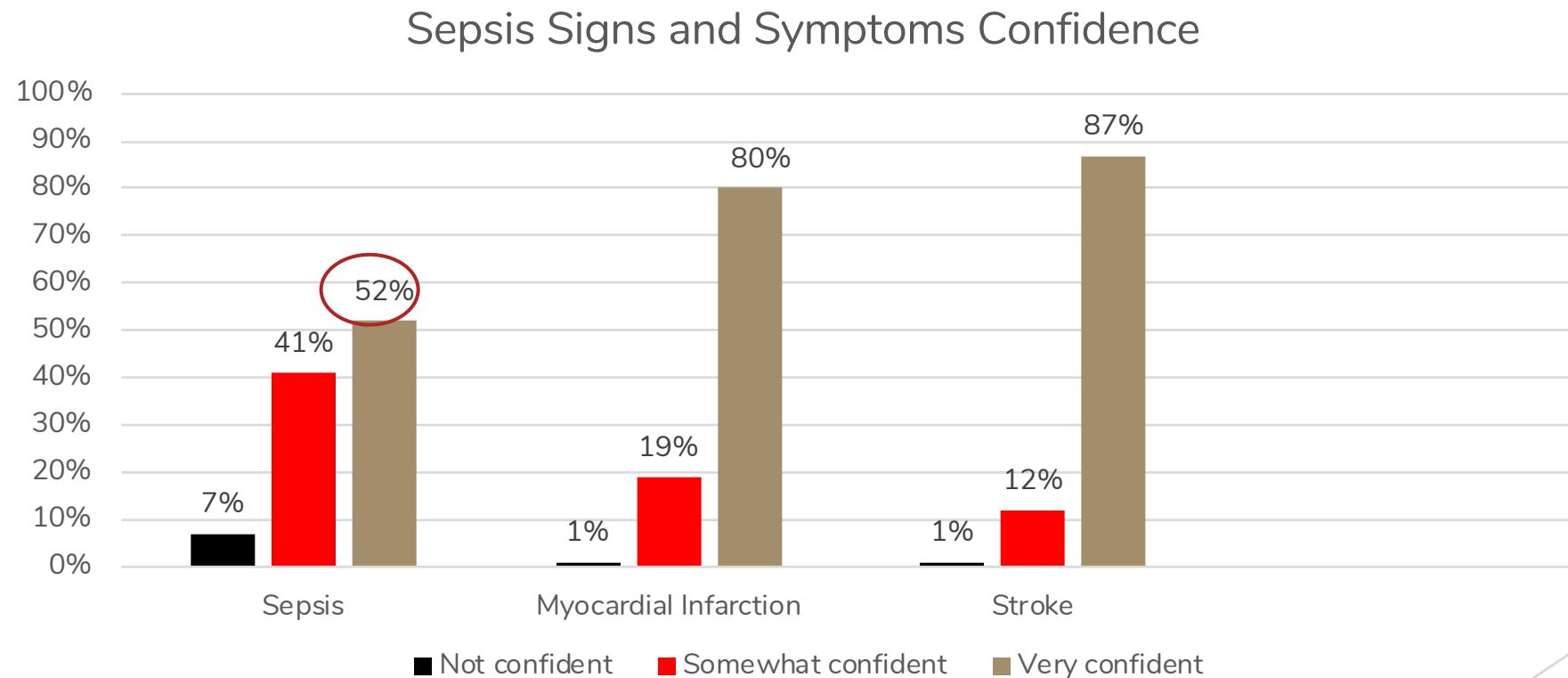
# Methodology

- ▶ This survey was conducted online within the United States by a partnership between Sepsis Alliance and National Association of Emergency Medical Technicians (NAEMT). The surveys were conducted from January 17 – 29, 2019. 1,310 adults ages 18 and older who have a primary role in EMS and provides direct patient care completed the survey.
- ▶ The sample utilized for the online survey was the NAEMT membership list.
- ▶ For further information, please contact Angelica Estrada at [aestrada@sepsis.org](mailto:aestrada@sepsis.org)

# Executive Summary

- ▶ The goal of this research is to understand the prevalence of sepsis encounters among EMS practitioners, their awareness level of different aspects of sepsis and the education they receive regarding sepsis.
  - ▶ With sepsis being one of the leading causes of death, only 52% are very confident in their ability to recognize the signs and symptoms of sepsis.
  - ▶ While nearly all (98%) consider sepsis a medical emergency, just 61% are very aware of sepsis symptoms.
  - ▶ While sepsis is one of the leading causes of death, 20% of EMS practitioners state their organization does not have a sepsis-specific protocol and 14% indicate their system does not receive any support for this protocol. In addition, more than 1/3 of EMS practitioners state sepsis isn't a key priority in their organization.
  - ▶ When looking for sources of information regarding sepsis, EMS practitioners utilize EMT/EMS Associations, their own facility, CDC, NIH and other medical organizations.

# Only half of EMS practitioners are very confident in their ability to recognize the signs and symptoms of sepsis.

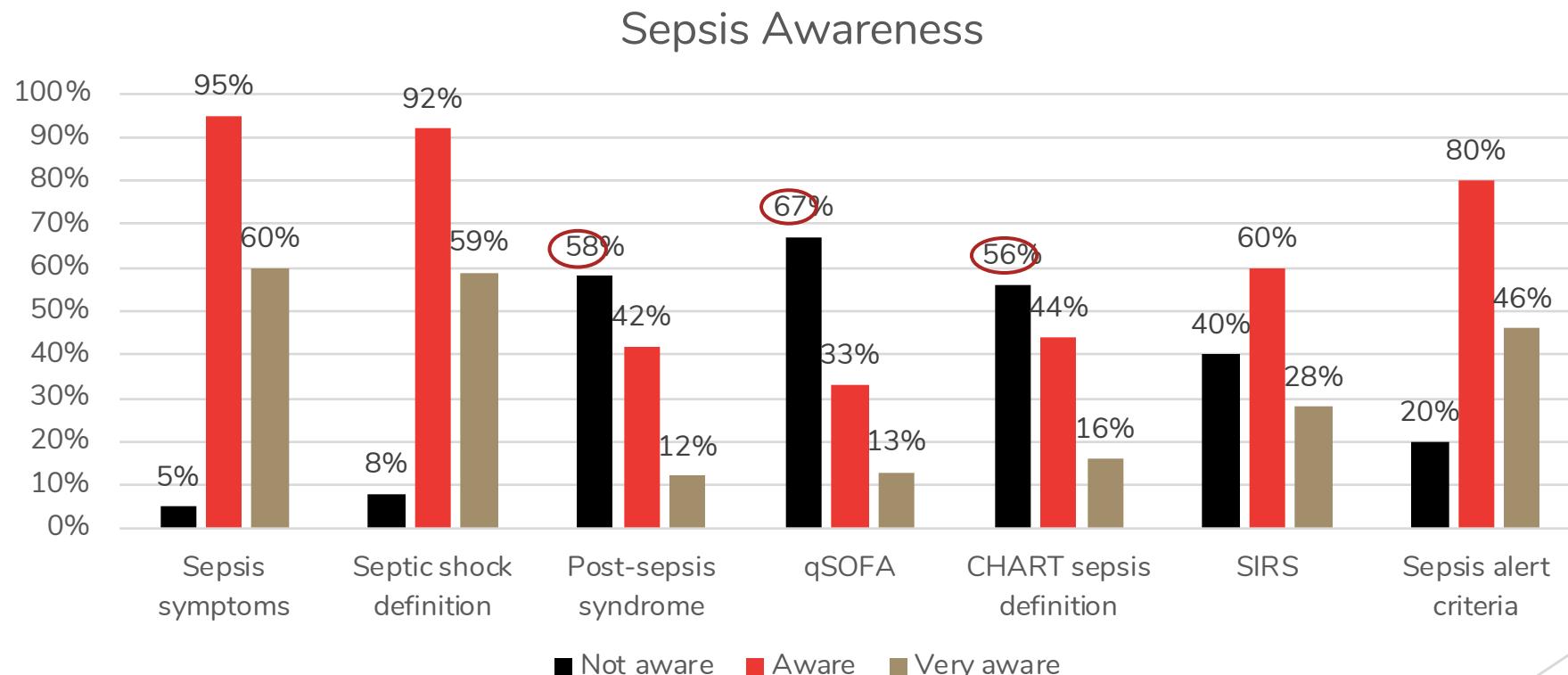


# Sepsis is a Medical Emergency

- ▶ Nearly all EMS practitioners (98%) state sepsis is a medical emergency yet only half (52%) are very confident in their ability to recognize signs and symptoms of sepsis.

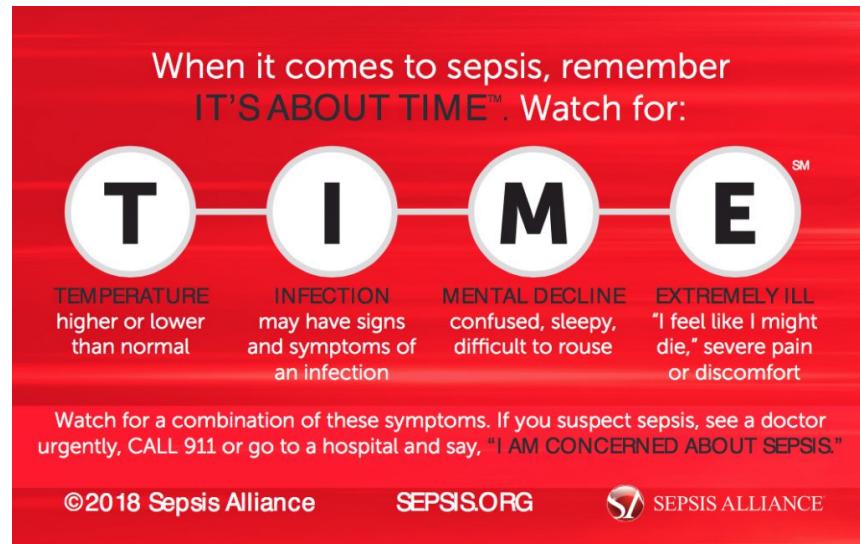


# EMS practitioners are aware of sepsis but not of different aspects of protocols and definitions.



# Fever is the number one sign EMS practitioners recognize as an early sign of sepsis.

Sepsis Alliance developed a program to help raise awareness of sepsis and the urgent need to seek treatment.



Signs recognized by EMS practitioners	% of EMS practitioners
Fever	89%
Heart rate > 90 beats/min	73%
Altered mental status	70%
Tachypnea	67%
Chills	59%
Decreased urine output	55%
Hypotension	50%
Dyspnea	40%
Cough	23%
Other	5%
I do not recognize any early signs of sepsis	2%

One in five EMS practitioners state their organization does not have a sepsis-specific protocol.

Although sepsis is a leading cause of death in the United States, protocols are lacking. When asked about protocols and their systems' support of this, EMS practitioners report they fall short.

Sepsis Protocol	% of EMS practitioners
State-wide has sepsis protocol	21%
County-wide has a sepsis protocol	24%
Receiving hospital has sepsis protocol	16%
In house from their organization has sepsis protocol	21%
Our system does not receive support for sepsis protocol	14%
Organization does not have a sepsis-specific protocol	20%



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Q11. Does your system have a sepsis-specific protocol?

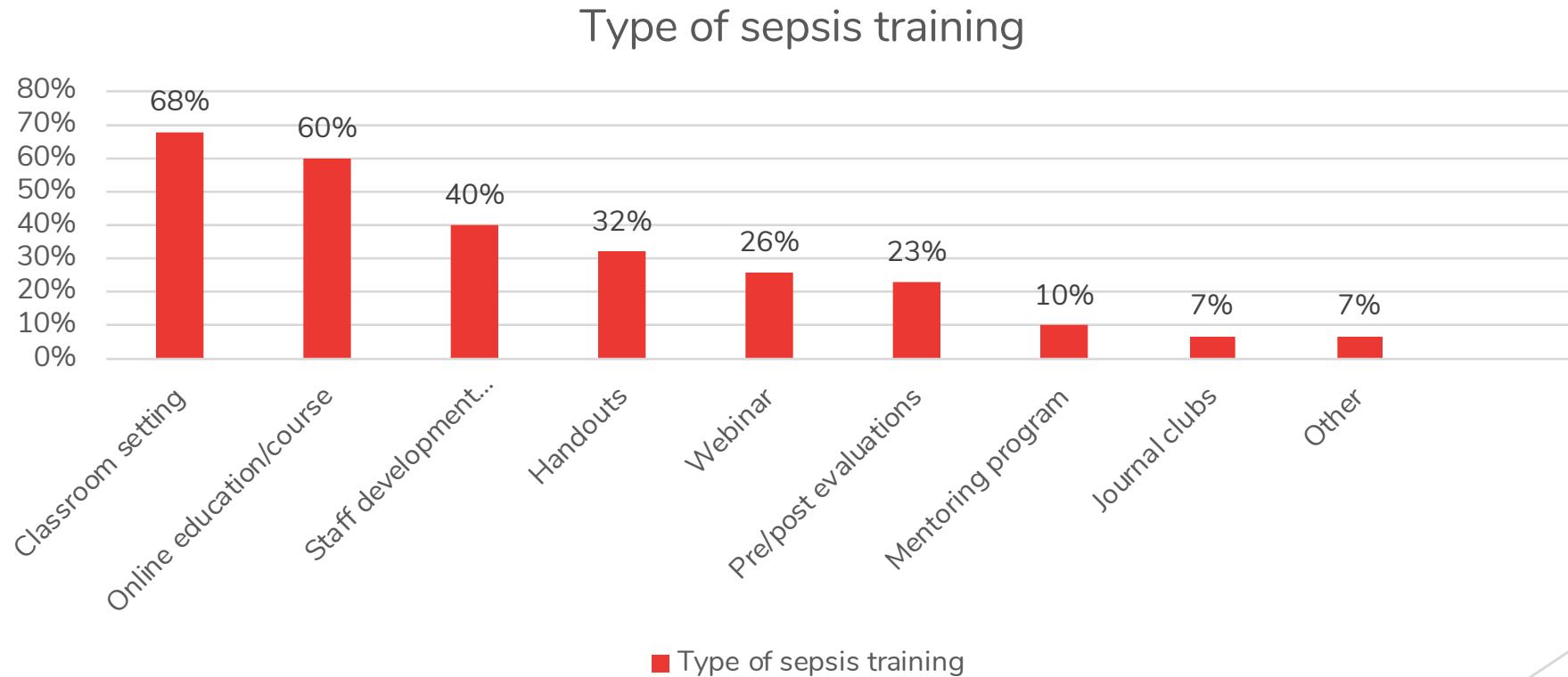


**More than 20% of EMS practitioners have to find sepsis-specific education themselves.**

There is limited sepsis education from the state, county, receiving hospitals and their organizations. One in five have to obtain the education themselves.

Sepsis Education	% of EMS practitioners
State-wide has sepsis specific education program	10%
County-wide has sepsis specific education program	13%
Receiving hospital has sepsis specific education program	13%
In house from their organization has sepsis specific education program	32%
I have obtained for myself sepsis specific education	21%
Our system does not receive support for sepsis specific education	15%
Organization does not offer an education program to support the treatment of sepsis.	15%

# Classroom and online are the most common types of sepsis training.



**34%** say sepsis isn't a key priority in their organization.

**33%** say their organization is not well prepared for a patient with sepsis.

"Prehospital sepsis care should be a **priority** for every EMS organization. We need to improve and recognize the importance of prehospital identification of sepsis"

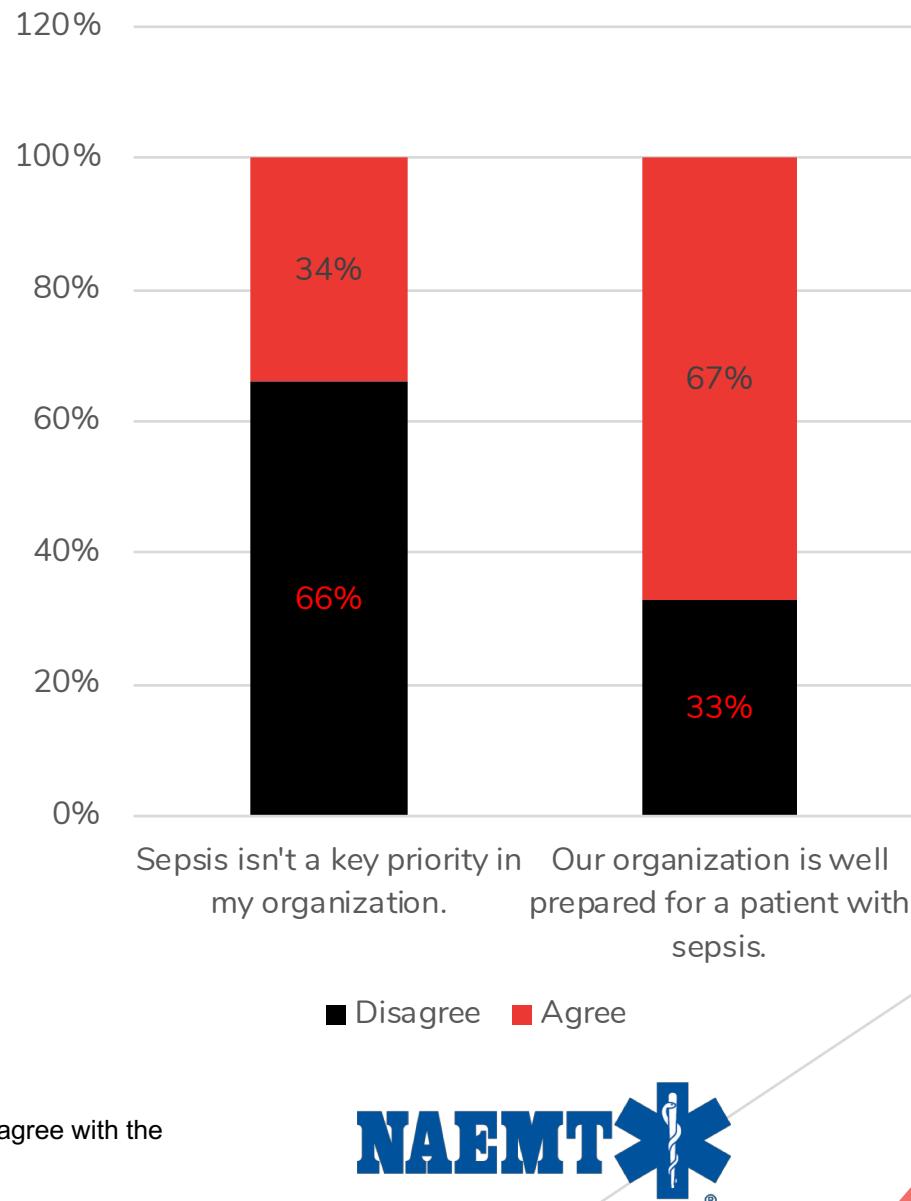
- Craig Manifold, DO  
Medical Director, NAEMT



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Q14. How much do you agree or disagree with the following statements?

### Prepared and Key Priorities



**25%** state that while they know patients have sepsis, physicians don't like to diagnose them with it.

**58%** say when patients are showing signs of sepsis, not all hospitals initiate a sepsis protocol.

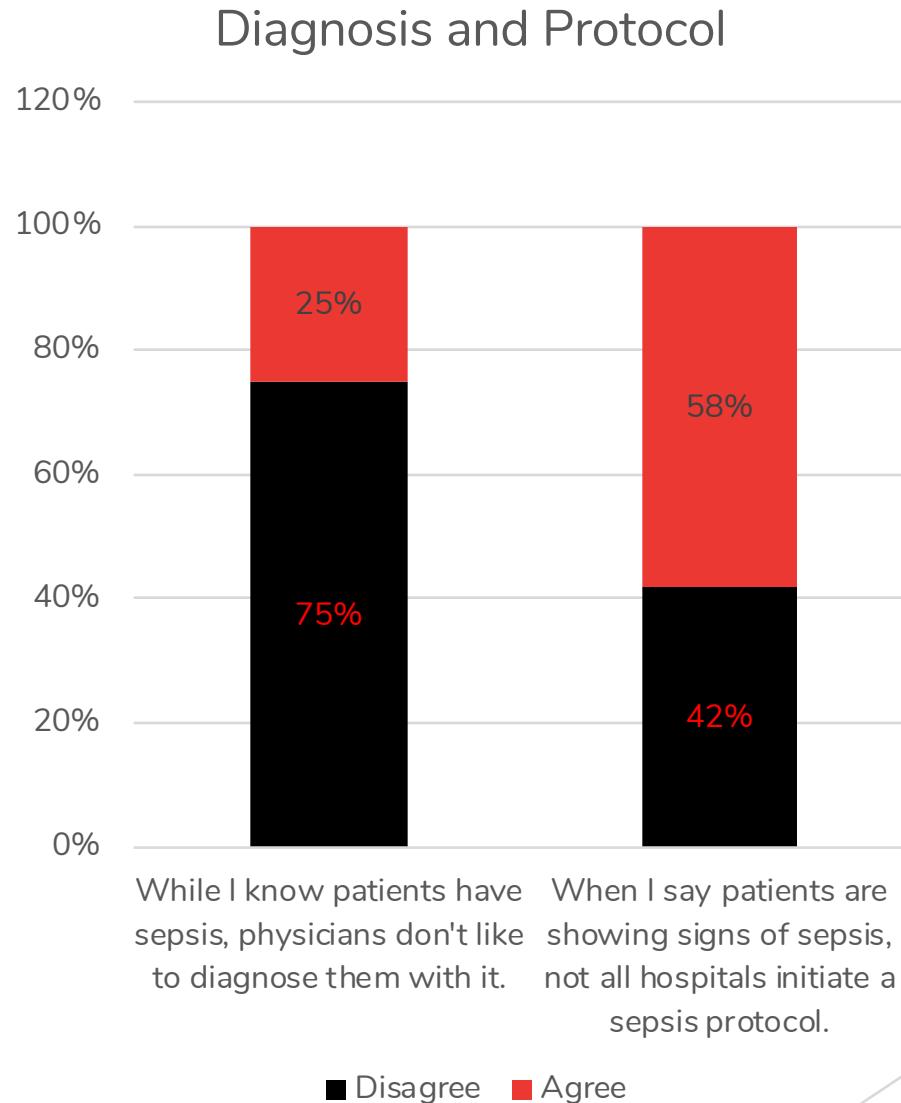
"Although sepsis alerts are being implemented more widely, EMS professionals still need to **advocate** for their patients and say 'I suspect sepsis!'"

- Rom Duckworth,  
award-winning EMS educator, career fire captain, and EMS coordinator



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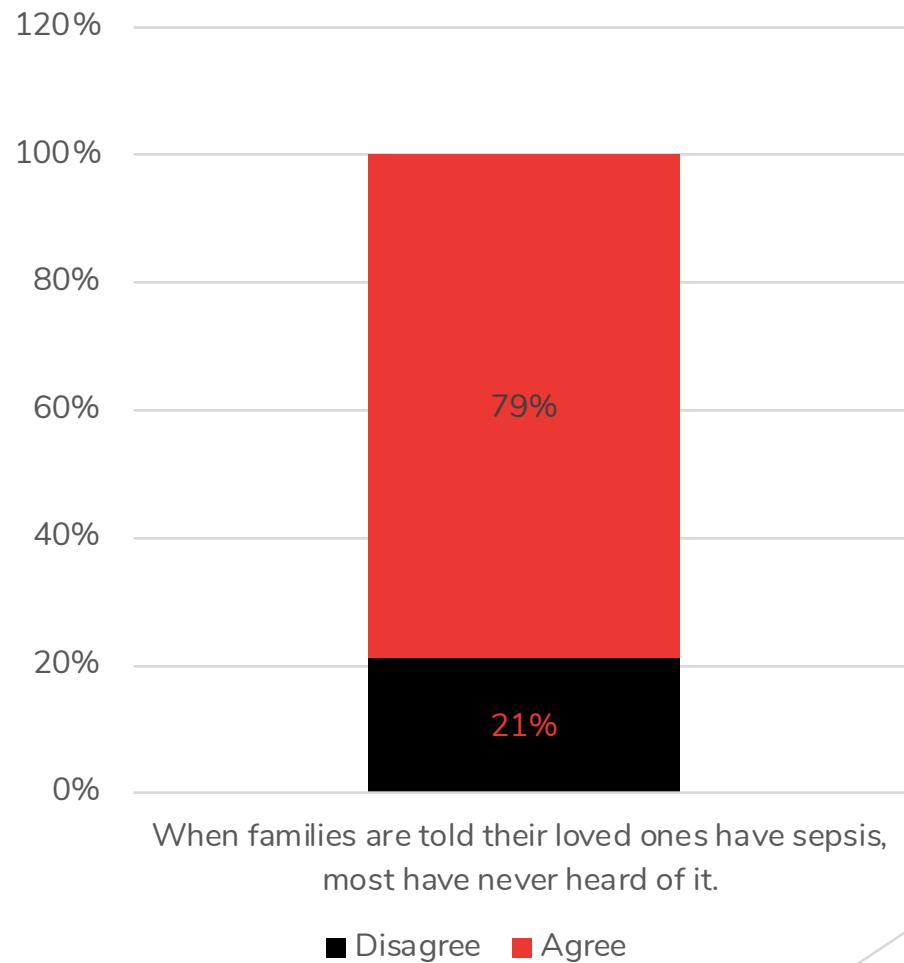


**79%** say when families are told their loved ones have sepsis, most have never heard of it.

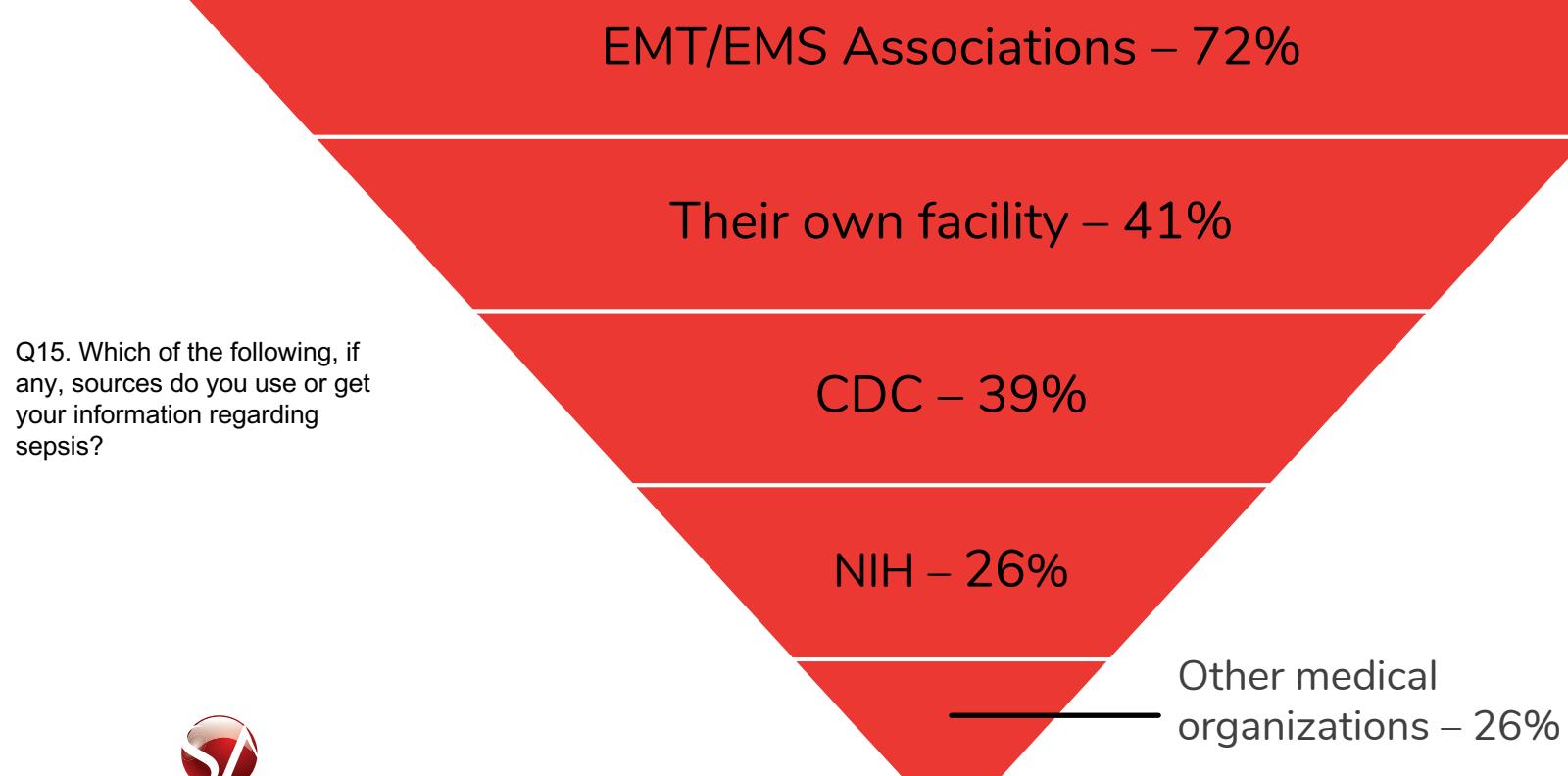
"While public sepsis awareness is increasing, patients and families still may not know to call and say "sepsis." EMS clinicians can play a **critical role** with early suspicion, assessment and coordination of care."

- Thomas Heymann,  
President & Executive Director,  
Sepsis Alliance

### Sepsis Awareness



# EMS practitioners look to their own associations for information regarding sepsis.



# Survey Demographics

## Primary role

EMR – 1%  
EMT – 27%  
Paramedic – 46%  
Supervisor – 5%  
Manager – 2%  
Training coordinator – 8%  
EMS Director – 5%  
Medical Director – 1%  
Other – 5%

## Primary employment

Paid – 81%  
Volunteer – 15%  
Other – 4%

## Level of patient care

First aid only – 5%  
First response – 31%  
BLS transport to emergency department – 38%  
ALS transport to emergency department – 68%  
Critical care transport – 25%  
Other – 11%

## Years in the EMS profession

0-47 years

## Seen sepsis patients

83% have seen patient with sepsis in past year



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