

## Supplemental Digital Content 1

<b>Community Response</b>	<b>Dispatch assisted CPR</b>	<b>Smart phone apps</b>	<b>Mandatory education at schools</b>	<b>Public AED</b>	<b>Public awareness and training efforts</b>	<b>Governmental support and involvement</b>
Alameda County, California	X	X	X	X	X	X
Anchorage, Alaska	X			X	X	X
Anoka County, Minnesota	X		X	X	X	X
St. Johns County, Florida	X		X	X	X	X
Lucas County, Ohio	X			X	X	X
Minneapolis -St. Paul, Minnesota	X	X	X	X	X	X
Palm Beach County*, Florida	X	X	X	X	X	X
Rialto, California	X	X	X	X	X	X
Salt Lake City, Utah	X		X	X	X	X
Whatcom County, Washington	X	X	X	X	X	X

**Table 1.a Interventions deployed as part of the community response**

Specific interventions to increase bystander or lay rescuer CPR rates, included lay rescuer training in schools, just-in-time dispatch assisted CPR including “No-No-Go” approaches, and smart phone apps.

The frequencies of bystander CPR for each site are also listed.

\*Limited to Battalion 10

Abbreviations: automated external defibrillator (AED), cardiopulmonary resuscitation (CPR), out-of-hospital cardiac arrest (OHCA)

<b>First Responder/BLS</b>	<b>Immediate chest compression</b>	<b>Chest compression only for 2 min</b>	<b>30:2 compression: ventilation ratio</b>	<b>Two hand facemask/SGA capabilities</b>	<b>ACD+ITD</b>	<b>ITD</b>	<b>AEDs</b>	<b>Supraglottic Airway</b>
Alameda County, California	X		X	X		X	X	
Anchorage, Alaska	X			X		X	X	
Anoka County, Minnesota	X		X	X	X	X	X	X
St. John's County, Florida	X		X	X	X	X	X	X
Lucas County, Ohio	X		X	X	X	X	X	X
Minneapolis -St. Paul, Minnesota	X	X	X	X	X	X	X	
Palm Beach County*, Florida	X	X		X	X	X	X	
Rialto, California	X	X	X	X		X	X	
Salt Lake City, Utah	X	X	X	X		X	X	
Whatcom County, Washington	X		X	X	X	X	X	

**Table 1.b Key first responders and basic life support (BLS) interventions in each system**

Most of the 10 EMS systems consistently implemented specific interventions to maintain high quality CPR that included feedback tools coupled with the defibrillator. In addition, all 10 systems deployed the impedance threshold device (ITD) as either a BLS or ALS-delivered intervention. Several also implemented the combination of manual active compression decompression CPR (ACD) plus an ITD. Most systems used a supraglottic airway as part of their airway strategy. As shown in Table 1c, the key advanced life support (ALS) interventions include use of automated CPR devices (LUCAS or AutoPulse), an ITD, anti-arrhythmic drug administration. Three systems also implemented some means to try to elevate the head and thorax during CPR.

\*Limited to Battalion 10

Abbreviations: active compression-decompression (ACD), automated external defibrillator (AED), cardiopulmonary resuscitation (CPR), impedance threshold device (ITD), out-of-hospital cardiac arrest (OHCA)

ALS	Mechanical CPR	IO/IV	Intubation	Head Up CPR	Prehospital ECMO Activation protocols	ETCO <sub>2</sub> monitoring	Prehospital Cooling	Termination protocols
Alameda County, California	X (L)	X	X		X	X		X
Anchorage, Alaska	X (L)	X	X			X		X
Anoka County, Minnesota	X (L)	X	X		X	X		X
St. John's County, Florida	X (L)	X	X			X	X	X
Lucas County, Ohio	X (L)	X	X			X		X
Minneapolis -St. Paul, Minnesota	X (L)	X	X		X	X		X
Palm Beach County*, Florida	X (L)	X	X	X		X	X	X
Rialto, California	X (A)	X	X	X		X		X
Salt Lake City, Utah		X	X	X	X	X		X
Whatcom County, Washington	X (L)	X	X		X	X	X	X

**Table 1.c Key advanced life support (ALS) interventions in each system**

Key advanced life support (ALS) interventions include use of automated CPR devices (LUCAS-L or AutoPulse-A), an ITD, anti-arrhythmic drug administration. Three systems also implemented some means to try to elevate the head and thorax during CPR. \*Limited to Battalion 10

Abbreviations: automated external defibrillator (AED), cardiopulmonary resuscitation (CPR), end-tidal carbon dioxide (ETCO<sub>2</sub>), extracorporeal membrane oxygenation (ECMO), impedance threshold device (ITD), intraosseous infusion (IO), out-of-hospital cardiac arrest (OHCA).

<b>In-Hospital Care</b>	<b>CCL and PCI access</b>	<b>TTM to 33°</b>	<b>ECMO support</b>	<b>Trauma surgery protocol /Trauma Centers</b>	<b>Cardiac surgery /Advanced heart failure capabilities</b>	<b>Neuro intensive care capabilities</b>	<b>Critical Care Units</b>	<b>Neuro psychiatric evaluation programs and patient support groups</b>
Alameda County, California	X	X		X	X			
Anchorage, Alaska	X	X		X	X		X	X
Anoka County, Minnesota	X	X	X	X	X	X	X	X
St. John's County, Florida	X	X			X	X	X	
Lucas County, Ohio	X	X		X	X	X	X	X
Minneapolis -St. Paul, Minnesota	X	X	X	X	X	X	X	X
Palm Beach County*, Florida	X	X		X	X	X	X	
Rialto, California	X	X			X		X	
Salt Lake City, Utah	X	X	X	X	X	X	X	
Whatcom County, Washington	X	X	X	X	X	X	X	X

**Table 1.d Key In-Hospital care interventions in each system**

Abbreviations: extracorporeal membrane oxygenation (ECMO), electrophysiologic programs (EP), cardiac catheterization lab (CCL), percutaneous coronary intervention (PCI), therapeutic temperature management (TTM). \*Limited to Battalion 10