

# PulsePoint



## City of Greater Sudbury Implementation Proposal

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April 18, 2016

**PulsePoint City of Greater Sudbury Implementation Proposal is  
supported by the Northern Ontario School of Medicine**

No conflicts of interest to disclose





**Northern Ontario  
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du Nord de l'Ontario

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# Background

- Established in 2005
- First new medical school in Canada in over 30 years
- Hosted by 2 campuses
- 64 new MD undergraduate students each year



West Campus at Lakehead University  
(Thunder Bay)



East Campus at Laurentian University  
(Sudbury)

# Background

- Distinctive model of distributed, community-engaged medical education
  - Student placements in different communities in Northern Ontario (rural, remote, Aboriginal, and Francophone)
- Social accountability mandate:
  - *Improving the health of the people and communities of Northern Ontario.*
  - *Social accountability to provide better healthcare, education, and research for the North.*



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*Innovative Education and Research  
for a Healthier North.*

# Agenda

- What is sudden cardiac arrest (SCA)?
- What is PulsePoint?
- Cost
- Why should Sudbury implement PulsePoint?
- Steps to implement PulsePoint
- Questions



# What is sudden cardiac arrest?



- Heart stops beating
- Person suddenly collapses and is unresponsive, not breathing, or breathing abnormally
- Can happen at any age

**Need CPR/defibrillation!**

# Cardiac arrest is NOT a heart attack



## **What is a heart attack?**

- Blood flow to the heart is slowed or blocked
- Heart continues to beat
- Warning signs: chest pain, shortness of breath, sweating, nausea, lightheadedness

# The problem



- ~40,000 **cardiac arrests** each year in Canada
- Out-of-hospital survival rate is only 5%
- Nearly 60% of SCA victims don't get CPR until professional help arrives
- For every minute that passes, SCA survival rates decrease by 7-10%

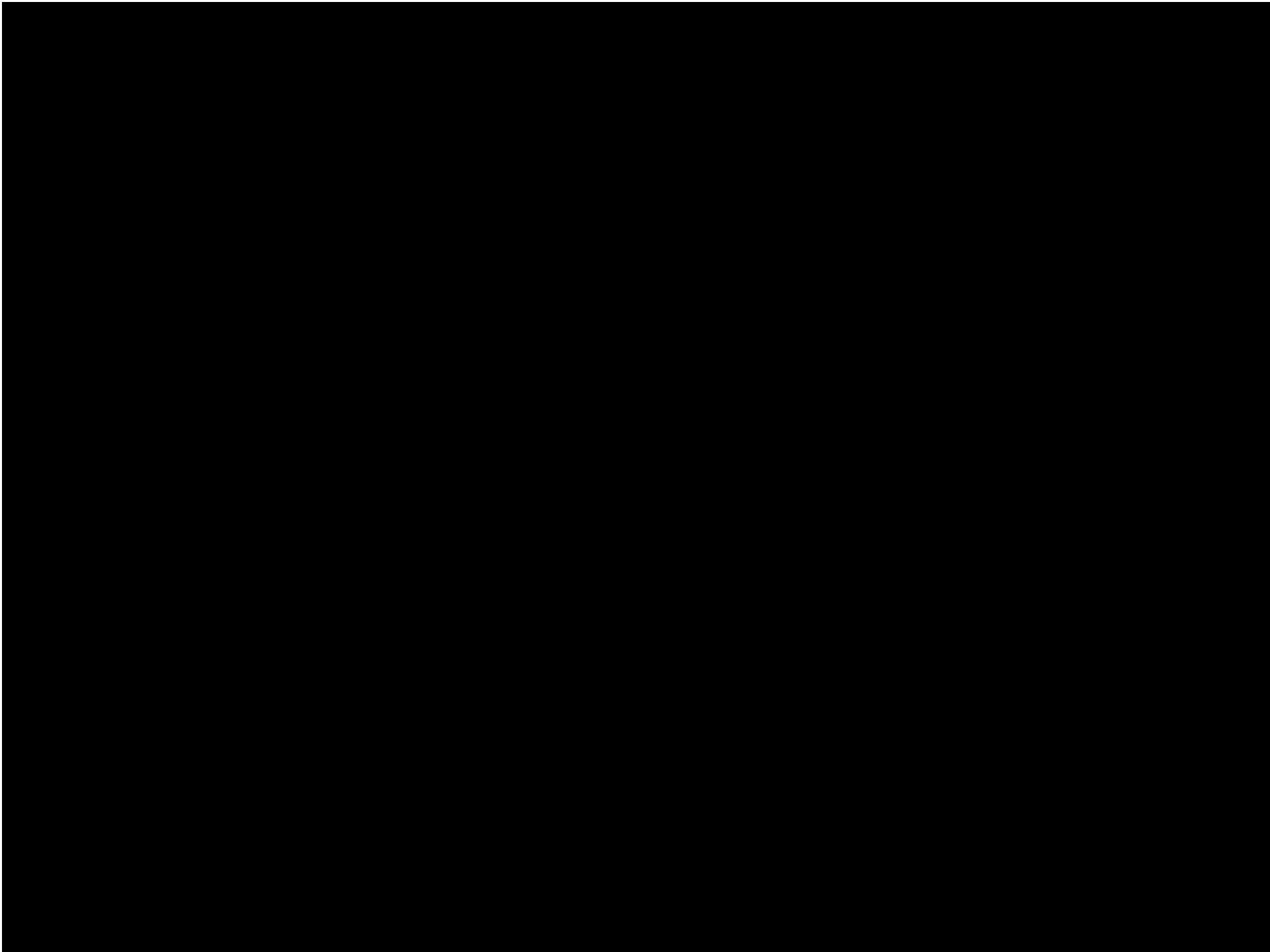


# The solution

## PulsePoint

- A mobile phone app that alerts CPR trained citizens when a cardiac arrest occurs nearby
- Improves community response to cardiac arrest





# History

- Developed in 2010
- Founder: Richard Price (former California Fire Chief)
- ***Price was eating dinner at a restaurant when someone next door had a cardiac arrest***
  - *“That whole time, while that crew was making their way to the scene, I had an AED in my car. I could’ve started CPR”*



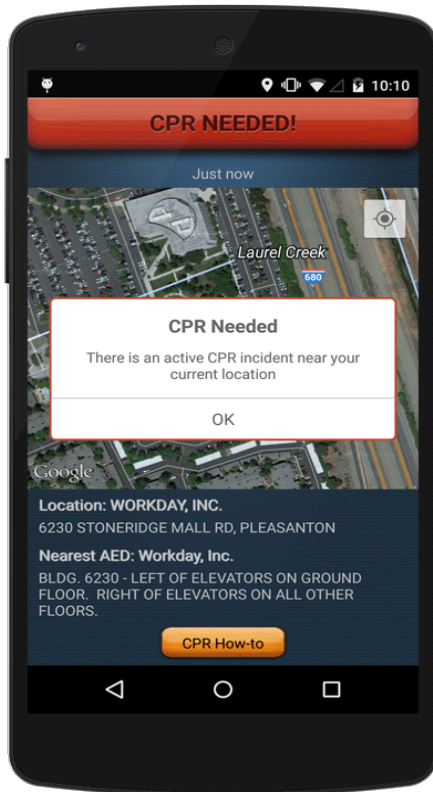
In March of 2015, Kingston Ontario was the first Canadian city to launch the PulsePoint app



**“POTENTIALLY THE MOST IMPORTANT INNOVATION FOR THE  
TREATMENT OF CARDIAC ARREST SINCE CPR”**

**— Dr. Steven Brooks, (champion, Kingston PulsePoint)**

# How does PulsePoint work?

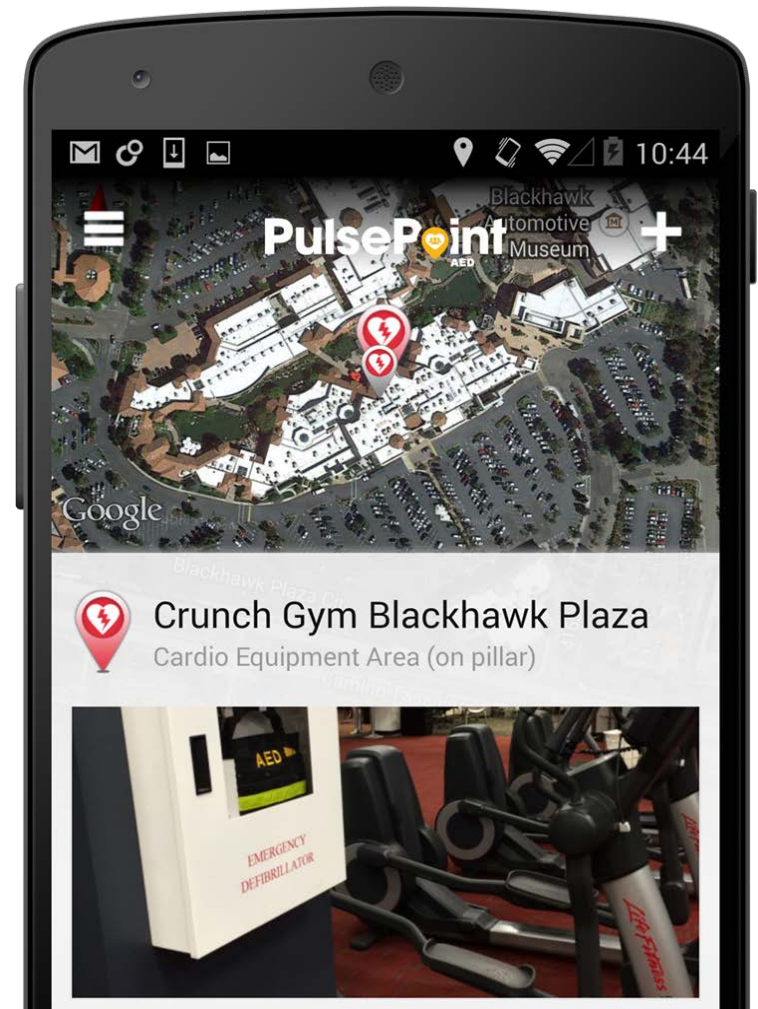


- The free PulsePoint phone app connects users to the city's emergency dispatch system.
- Users that are trained in CPR are notified when someone in a nearby public place needs CPR.
- The app also shows alerted CPR-trained individuals where to find a public defibrillator if one is close.



# PulsePoint AED

- Add-on technology
- Tracks AED (defibrillator) locations in the community
- Responders are notified where to find the nearest AED



# Chain of Survival

- PulsePoint app can strengthen the "chain of survival"
- Potential to increase:
  - bystander response to cardiac arrest victims
  - Chance that CPR or defibrillation will occur prior to the arrival of EMS





Figure 1 - Activation Map

(notifies CPR trained citizens within 400m of a cardiac arrest)



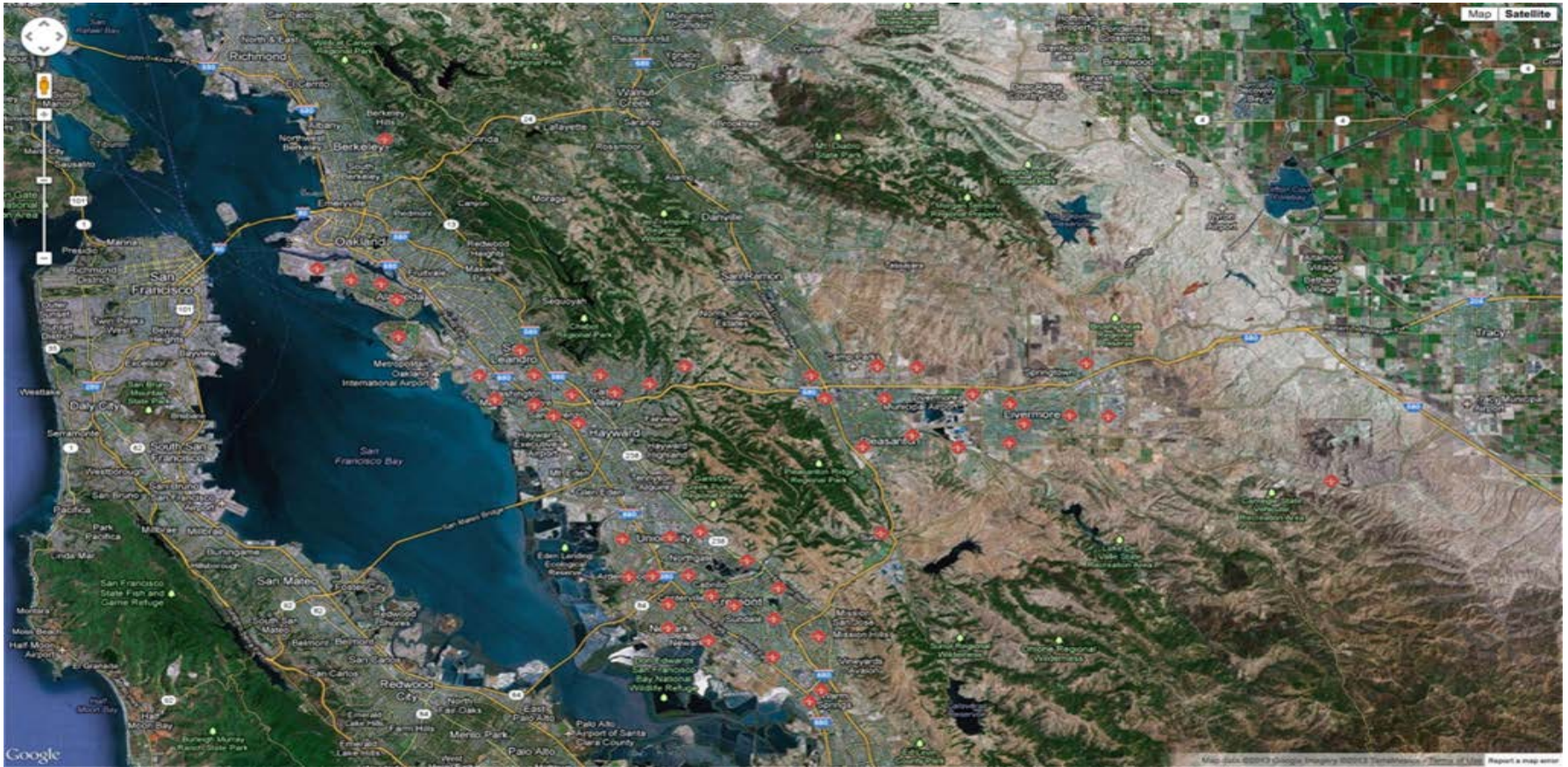


Figure 2 - Alameda County (California) Fire Stations



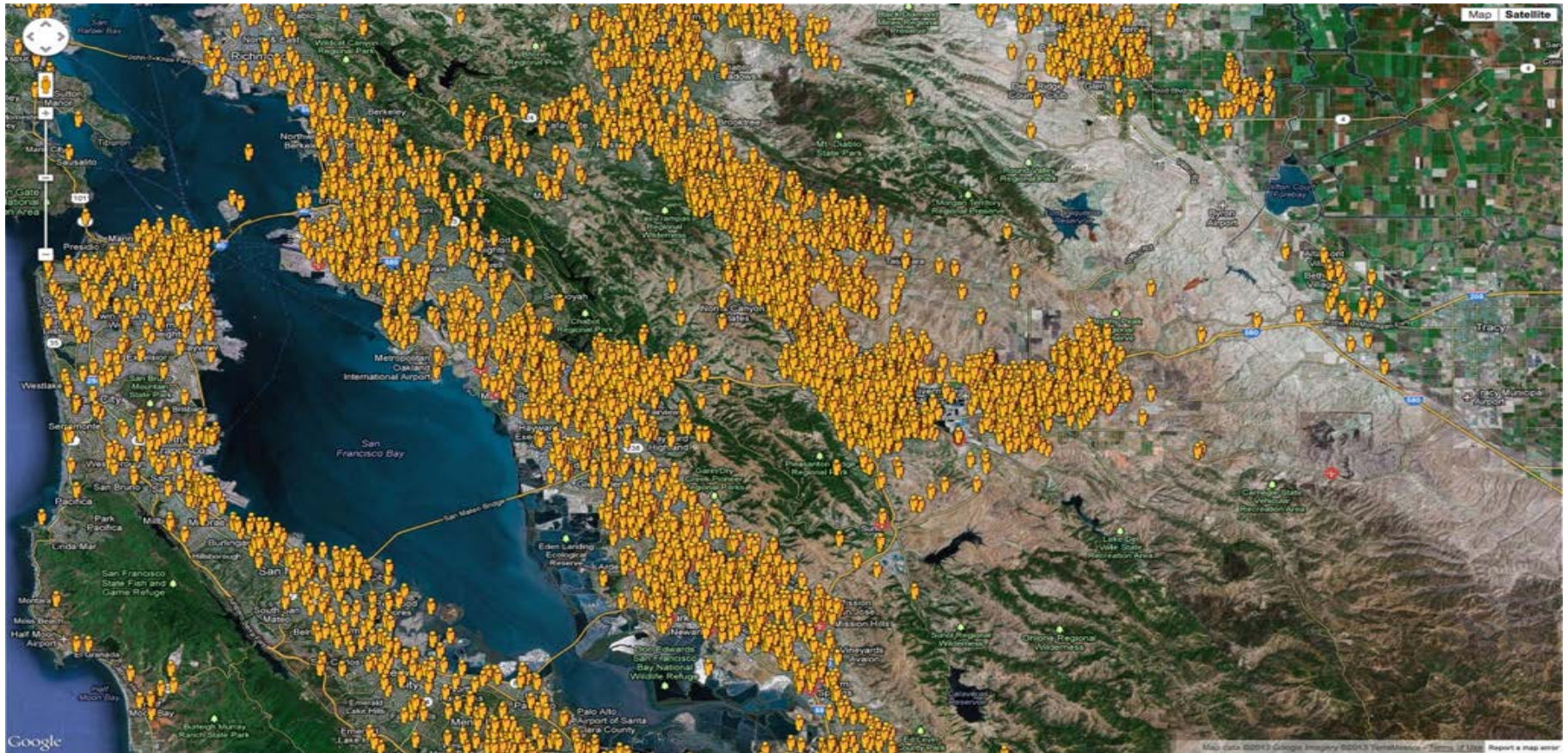


Figure 2 - Responder Map (Alameda County)



# Cost (USD)

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**1. Start up fee: \$10,000.00**

**1. Annual license fee\*:  
\$8,000.00**

\*based on population served



# Why implement PulsePoint in Sudbury?

- Sudbury's large mining and healthcare communities mean that we have a large number of citizens qualified to administer CPR.
- The application allows for a more timely response for sudden cardiac arrest, given the large geographical area of the city.



# Potential benefits of PulsePoint

- Increased citizen engagement in public safety
- Increased awareness of AEDs in the community
- Increased visibility and public profile of the agency
- Increased bystander and AED use
- Increased survival from cardiac arrest
- Research and collaboration opportunities



The image is a promotional graphic for the PulsePoint app. It is divided into two main sections. The left section has a red background and features a smartphone displaying the app's interface. To the right of the phone, the text reads: **GET THE APP. SAVE A LIFE.** Below this, it says: "Get alerted to sudden cardiac arrests in your immediate vicinity, so that you can start CPR in the critical lifesaving minutes before EMS teams arrive." At the bottom left of this section are the LA County Fire Department and PulsePoint logos. At the bottom right, it says: "Contact LA County Fire Department for CPR training and a PulsePoint brochure. visit: [info@fire.lacounty.gov](mailto:info@fire.lacounty.gov)". The right section also has a red background and contains the text: **IF AN ADULT SUDDENLY COLLAPSES AND STOPS BREATHING NORMALLY, FOLLOW THESE STEPS UNTIL HELP ARRIVES.** Below this text is a QR code with the caption "Scan to learn CPR". To the right of the QR code is a list of three steps: 1. Call 9-1-1 immediately. 2. If someone else is available have them retrieve the nearest public access AED. 3. Push hard and fast in the center of chest, with a depth of two inches, at a rate of 100 per minute.

**GET THE APP. SAVE A LIFE.**

Get alerted to sudden cardiac arrests in your immediate vicinity, so that you can start CPR in the critical lifesaving minutes before EMS teams arrive.

Contact LA County Fire Department for CPR training and a PulsePoint brochure. visit: [info@fire.lacounty.gov](mailto:info@fire.lacounty.gov)

**IF AN ADULT SUDDENLY COLLAPSES AND STOPS BREATHING NORMALLY, FOLLOW THESE STEPS UNTIL HELP ARRIVES.**

Scan to learn CPR

- 1 Call 9-1-1 immediately.
- 2 If someone else is available have them retrieve the nearest public access AED.
- 3 Push hard and fast in the center of chest, with a depth of two inches, at a rate of 100 per minute.

# Steps to Implement PulsePoint

1. Plan the implementation
2. Connecting to local CAD (computer-aided dispatch) data
3. PulsePoint AED and optional components
4. Testing and acceptance
5. Internal training and orientation
6. Announcing PulsePoint to the community
7. Promoting the initiative on an ongoing basis



# Questions?



***For more information, visit:***

***[www.pulsepoint.org](http://www.pulsepoint.org)***



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# Figure Credits

<http://www.pulsepoint.org>

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