

Request for Decision

PulsePoint Response Application

Presented To: Community Services
Committee

Presented: Monday, Apr 18, 2016

Report Date Thursday, Mar 31, 2016

Type: Presentations

Resolution

THAT the City of Greater Sudbury supports the implementation of PulsePoint as outlined in the report dated March 31, 2016 and authorizes the Chief of Fire and Paramedic Services to enter into all agreements to implement this project.

Health Impact Assessment

This project is directly aimed at improving sudden cardiac arrest survival rates within the City of Greater Sudbury providing real-time alerting of cardiac arrest events occurring in public locations allowing well meaning citizens to intervene by providing CPR while also providing users with information on the location of the closest public access defibrillator, vital to the treatment of cardiac arrest.

Financial Implications

Cost for the implementation will be funded through the Emergency Services Operating Budgets.

Executive Summary

The PulsePoint mobile app alerts CPR-trained bystanders to someone nearby suffering a sudden cardiac arrest in a public location that may require immediate CPR. PulsePoint is activated by our public safety dispatch center simultaneously along with the dispatch of local paramedic and fire resources and notifies only those potential rescuers that are in the immediate vicinity of the emergency.

The PulsePoint mobile app is free to download by the public for both IOS and android devices, the cost to implement the service is \$10,000 one-time set up costs, with an annual cost of \$8000. The system would be interfaced with the Computer Aided Dispatch systems at Fire Dispatch. This project may qualify as a Healthy Community Initiative (HCI). The HCI application process is currently being revised; once revised, an application will be made for the Capital costs of this initiative.

A public education campaign would be undertaken to educate the public on the PulsePoint app reinforcing

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Health Impact Review

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Recommended by the Department

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the importance immediate CPR and defibrillation plays in survival from sudden out-of-hospital cardiac arrest. This public education would coincide with the delivery of free Heart and Stroke “Hands Only” CPR programs delivered by Paramedic Services in various locations across the City. In addition, the more than 120 Public Access Defibrillators (PAD) located across the City will be reflected in the software, providing the public immediate access to the locations of these devices.

Background

The Canadian Heart and Stroke Foundation (2014) define cardiac arrest as a sudden stop in heart function. Cardiac Arrest is commonly caused by an abnormal heart rhythm, heart disease, heart attack, electrocution, or drug use. In Canada, one cardiac arrest occurs every 12 minutes (CHSF 2014). Prompt response to a cardiac arrest victim is critical, with early cardiopulmonary resuscitation (CPR) and defibrillation (shocking an abnormal rhythm back to a more regular life sustaining rhythm) improving survival outcomes. Without appropriate treatment (CPR and rapid defibrillation) cardiac arrest will result in death; for every one (1) minute delay in treatment the survival rate decreases by 5% (Hazinski et al, 2004).

PulsePoint Respond is an enterprise-class, software-as-a-service (SaaS) pre-arrival solution designed to support public safety agencies working to improve cardiac arrest survival rates through improved bystander performance and active citizenship. Where adopted, PulsePoint Respond empowers everyday citizens to provide life-saving assistance to victims of sudden cardiac arrest. Application users who have indicated they are trained in cardiopulmonary resuscitation (CPR) and willing to assist in case of an emergency can now be notified if someone nearby is having a cardiac emergency and may require CPR. If the cardiac emergency is in a public place, the location-aware application will alert trained citizens in the vicinity of the need for bystander CPR simultaneously with the dispatch of paramedic and fire services. Through a connection with our Fire Dispatch, the PulsePoint software sends alerts to a user's mobile phone if CPR is required in a public location within 500 meters. The application also directs these citizen rescuers to the exact location of the closest publicly accessible Automated External Defibrillator (AED).

How it can help

Sudden Cardiac Arrest (SCA) can happen to anyone, at any time, but PulsePoint Respond empowers CPR-trained citizens to help improve patient outcomes and save lives by reducing collapse-to-defibrillation times, and when citizens are more aware of and engaged with the health of their community, they become better partners with your team and a critical part of your response efforts.

Imagine that you are in a restaurant having lunch with a few friends. You hear a siren in the distance and think to yourself, “I wonder where they are going?” The siren gets louder and closer, and then you actually see an ambulance approaching in the distance. Suddenly, surprisingly, the ambulance turns into the parking lot and parks right in front of the crowded restaurant where you're eating. That's when you learn that right next door, someone is unconscious after suffering a cardiac arrest. If you only knew, maybe you could have made a difference.

This scenario could be a thing of the past as the PulsePoint app gains widespread adoption. PulsePoint Respond is an innovative new location-aware phone application that empowers everyday citizens to provide life-saving assistance to victims of SCA. Communities can now use the application to notify CPR-trained citizens to cardiac arrest emergencies where the potential need for bystander CPR is high.

Notifications are made simultaneously with the dispatch of Paramedics and Fire Services to anyone within the area that is CPR-trained and has indicated their willingness and ability to assist during a cardiac arrest emergency. These notifications are only made if the victim is in a public place and only to potential rescuers that are within 500 meters of the emergency. When notifications do occur they intend to target potential citizen rescuers that are primarily within walking distance of the event.