

To:	Warden Halliday and Members of Grey County Council
Committee Date:	April 26, 2018
Subject / Report No:	PSR-CW-05-18
Title:	SAVE and Paramedic eNotification Program Information
Prepared by:	Kevin McNab
Reviewed by:	Kim Wingrove, Kevin Wepler
Lower Tier(s) Affected:	All
Status:	Recommendation adopted by Committee as presented per Resolution CW107-18; Endorsed by County Council on May 10, 2018.

Recommendation

1. That Report PSR-CW-05-18 regarding the SAVE and Paramedic eNotification program be received and that County staff continue to work with community partners to develop and implement electronic solutions to improve emergency response and patient care.

Executive Summary

Staff continually works to improve system service delivery and the implementation of the SAVE and eNotification programs will further allow us the ability to do so.

The SAVE application is designed to provide a series of mapping layers intended to assist medical and emergency response agencies in locating and responding to vulnerable populations during extreme crisis and/or disaster situations.

eNotification is a web-service interface that enables participating LHIN's to be notified of active LHIN clients who meet certain criteria and are visited by paramedic services, present to a hospital emergency department, or are admitted to or discharged from hospital.

On February 28th, 2018 Grey County Paramedic Services, the South West Local Health Integration Network (SWLHIN) and Interdev Technologies (vendor for paramedic services patient care records) initiated the first pilot through eNotification which enables the bi-directional sharing of personal health information between paramedic services and the circle of care.

Background and Discussion

The purpose of this report is to provide information on two software applications that will improve emergency response and patient care within the County of Grey and across the Province of Ontario. Staff continually works to improve system service delivery and the implementation of the SAVE and eNotification programs will further allow us the ability to do so.

1) SAVE (Situational Awareness of Vulnerable Populations During a Crisis or Evacuation)

Project Overview

There have always been vulnerable populations but the number has increased due to an aging population and medical advances that have patients living longer in their own home with more complex medical needs. Over the past number of years healthcare agencies have been moving towards a “providing healthcare at home” model. The movement has been for people to stay at home as long as possible. Some of these people may require special assistance depending on the nature of the emergency or event.

Examples of people or situations that may require additional assistance in an emergency:

- Ambulation problems
- Lack of social support (friends and family)
- Home oxygen
- Home dialysis
- Home ventilators
- More technology on the way (eg. LVADs) Left Ventricular Assist Device

The decentralization of healthcare into people’s homes presents a significant situational awareness problem for emergency management organizations during a crisis (extended power outage, extreme temperatures) or disaster (hazardous material incident, wild fires, tornado, etc.).

The SAVE application is designed to provide a series of mapping layers intended to assist medical and emergency response agencies in locating and responding to vulnerable populations during extreme crisis and/or disaster situations. The vulnerable population may be very capable of living alone normally but may require assistance evacuating or dealing with extreme heat or power outages. The first step is to identify the vulnerable population and to understand their requirements for assistance during a disaster.

Capabilities of SAVE Platform

The SAVE platform has the capability of registering of vulnerable persons, volunteers and resources, tracking of emergency services (paramedic, police and fire services with software installed), tracking of County staff, map of impacted area, logging of actions taken and Twitter Feed monitoring.

The application assists in major disasters by improving the situational awareness in these stages by:

1. Geo-locating vulnerable populations and identifying their special needs, during a disaster. Databases of vulnerable populations like the one that exists with the SWLHIN have the ability to be imported into the SAVE application in a real emergency. An individual or their family member can also register into the SAVE application as a vulnerable person indicating their needs in an emergency.
2. Geo-locating available physical and human resources to aid the vulnerable population. These can be volunteers who will assist over and above the services of first responders.
3. Facilitate the coordination of providing the needed aid to the vulnerable populations for the given situation through first responders, volunteer resources and organizations. First responders will have direct access to the SAVE application and information on assistance required in their vehicles.
4. Facilitate the monitoring of aid being provided to track appropriate metrics.
5. Include live feeds from social media sites such as Twitter – an important source of real time on the ground information during a disaster.

Funder Information

The SAVE project is funded by The Canadian Safety and Security Program (CSSP) which is a federally-funded program led by Defence Research and Development Canada's Centre for Security Science (DRDC CSS), in partnership with Public Safety Canada.

Launched in 2012, CSSP's collaborative model fosters, through different mechanisms, innovative science and technology advancements that contribute to the safety and security of Canadians. In order to sustain growth DRDC CSS works domestically and internationally in partnership with government, industry, and academia.

The Canadian Safety and Security Program's (CSSP) mission is to strengthen Canada's ability to anticipate, prevent, mitigate, prepare for, respond to, and recover from natural disasters, serious accidents, crime and terrorism through the convergence of science and technology with policy, operations, and intelligence.

Involved Agencies and Partners

- County of Grey – Emergency Management and Paramedic Services
- County of Lambton
- County of Essex
- Interdev Technologies
- Southwest Local Health Integration Network (SWLHIN)
- Canadian Safety and Security Program (CSSP)

SAVE Emergency Exercise

County staff will be testing the SAVE application in a simulated emergency environment on May 11th, 2018. Multiple local partners will be involved in the exercise including emergency management, paramedic services, social services, transportation services, SWLHIN, homecare, hospitals and other interested emergency services.

SAVE Program Evaluation

During emergency exercises, observations will be made in the use of the application and during a post exercise debrief, feedback will be solicited regarding the application and suggestions for changes and improvements.

When all three participating County exercises are complete all required feedback for improvement will be gathered to ensure that the necessary changes are made. During the final implementation and training phase the developers will go over changes to the application with the users from each agency, and solicit final feedback which will be incorporated into the project wrap up report to CSSP.

Availability of program after initial testing

The County of Grey is a project stakeholder and a participating agency for the SAVE project and as part of the project, the County of Grey will receive the SAVE application for the purpose of running simulations/exercises.

After the Grey County exercise it is not intended that the application will be production ready. However it could be used for further testing and used as a 'beta' product until it is ready for production. Feedback from all exercises will be used to improve the application. During the project close out phase in December the application will be ready for production.

2) Paramedic eNotification

Project Overview

Traditionally paramedic services across Ontario have been unable to share medical information with the Provincial circle of care agencies like the LHIN's, hospitals, community care, primary care etc. Grey County Paramedic Services has been working with the SWLHIN for the past 4 years to make a connection with the circle of care to enable bi-directional sharing of personal health information. On February 28th, 2018 Grey County Paramedic Services, the South West Local Health Integration Network (SWLHIN) and Interdev Technologies (vendor for paramedic services patient care records) initiated the first pilot through eNotification which enables the bi-directional sharing of personal health information between paramedic services and the circle of care.

CHRIS (Client Health Related Information System) & eNotification

In the province of Ontario there are 14 LHIN's each with their own distinct geographies. The LHIN's use a technology tool called the Client Health Related Information System (CHRIS). CHRIS was developed by Health Shared Services Ontario (HSSO) (provincially owned) and is

capable of providing information and referral services, care coordination services and has applications for the LHIN to communicate with external parties and other integrations like eNotification and eReferral. eNotification is a web-service interface that enables participating LHIN's to be notified of active LHIN clients who meet certain criteria and are visited by paramedic services, present to a hospital emergency department, or are admitted to or discharged from hospital. The specific technology has been running provincially in hospitals for well over three years allowing emergency departments across the province to know in real time if the patient presenting in the emergency department is a LHIN patient.

These eNotifications have been used by the LHIN to alert care coordinators in real time if a patient of the LHIN is in the emergency department (send a hospital care coordinator to investigate) and to turn off services going to the patient home (reduces not seen not found) until they return back to their home. Recently these same Hospital eNotifications have been forwarded to Ontario MD's hospital report manager which in turn can be passed to participating primary care physicians via their electronic medical record vendors (Practice Solutions/ Accuro). Paramedic eNotifications now have been added to the pre-existing Hospital eNotifications suite in CHRIS which include 1)patient transported to hospital, 2)patient not transported to hospital, 3)patient deceased and the plan is to channel these eNotifications to the circle of care via Ontario MD hospital report manager, the LHIN health partner gateway and the virtual private tunnels between LHIN and Hospital.

Opioid Events

Prior to launching Paramedic eNotifications on February 28th, 2018 a request was made by Paramedic Chiefs provincially to include real time opioid event codes in with the Paramedic eNotifications. This additional feature identifies when an Opioid event is occurring in real time and is communicated out to the circle of care. When an Opioid call occurs in Grey County it is identified as an event code and added into the eNotification alert allowing participating clinicians inside circle of care to be aware. In addition, for clinicians not able to access Opioid information online an email feature was approved to send the alert via email to participants wishing this information (i.e. Public Health Officers).

Statistically at approximately six weeks into the Grey Paramedic Services eNotification pilot, the SWLHIN has received approximately 1,750 Paramedic eNotifications , 387 eNotifications are a match to LHIN patients and five Opioid events have been identified to have occurred. Generally speaking 20% of all Grey County Paramedic Services calls have LHIN patients and less than 1% of these calls reflect an Opioid event.

Future Development

Looking ahead Hospital/EMS eNotifications will be linked to help better reflect the emergency as it occurred. Potential uses include investigating and reporting, understanding workflows, connecting call volumes, determining falls and lift assists that required transporting versus not transported, identifying not only opioid overdose events but non opioid overdose events, alerting of febrile incidents and infectious diseases in the community etc. There will also be opportunities for single sign on between participating applications and tools with better methods for connecting data and more bi-directional sharing of information. Bi-directional sharing of

personal health information will greatly improve patient care in the prehospital, hospital and community settings.

Legal and Legislated Requirements

The County of Grey will ensure that the use of the SAVE application will follow all rules surrounding the Personal Health Information Protection Act. A component of the SAVE program development is to ensure all privacy rules are followed. In November 2017, a Privacy Impact Assessment was completed for the use of the SAVE application.

The County of Grey and the Southwest LHIN have a data and network sharing agreement which allows for the sharing of personal health information.

Financial and Resource Implications

The eNotification pilot and the sharing of vulnerable patient information to the SAVE program are specific to County of Grey and the SW LHIN. The plan is to use this work as a pilot for a provincial paramedic solution. Upon a successful pilot between Grey County and the SW LHIN work will begin with the HSSO and the Ministry to formalize a more robust legal agreement framework, allowing the pilot work to expand rapidly across the province. The anticipated expansion will allow the sharing of information between the County of Grey and the North Simcoe Muskoka and Wellington Waterloo LHIN's.

The County of Grey will receive \$63,800 to fund the purchase of computers and docking stations to be utilized in the testing of the SAVE application. As new computers and docking stations were purchased in 2017 these funds will be transferred at year-end to the Paramedic Services reserve that is utilized for equipment/vehicle purchases. These unbudgeted funds will benefit the reserve and assist in funding future purchases.

Relevant Consultation

External:

Internal: CAO, Corporate Services, Transportation Services, Social Services

Appendices and Attachments

None