Public Safety

Data-smart emergency response planning enables community to protect children, expectant mothers and at-risk residents

The Challenge

A community may be threatened with little notice by a wide variety of potential emergencies. One example is a boil-water advisory which is a directive given by public health agencies when a community’s drinking water could be contaminated. Pathogens in the smallest amounts of water can pose serious health risks if ingested. In addition to tracing water flow to identify affected residents, Acorn developed partnerships and procedures to use shared municipal, health, and Vulnerable Persons Registry (VPR) data to identify and contact at-risk residents.
Data-Smart City Solutions In Action

The Solution

Through advanced GIS tracing tools and database relationships, Acorn is able to determine the areas affected by any number of emergency issues.

For boil water advisories, Acorn can use VPR data to identify vulnerable persons registrants who rely on medical equipment that uses water. These residents can be contacted within minutes and have bottled water source delivered to their homes. Through public health data, Acorn could determine pregnancies or recent pregnancies in the affected area. This information could then be provided to the public health unit which would be able to contact all individuals within hours to ensure they were informed of the specific precautions they should be taking to protect their families.

Acorn could also leverage municipal and social services data to identify all schools, daycares, and home daycare facilities. This information would be provided to the public health unit and Child Care Algoma so they could be contacted about the present health risks.

Today, the process of communicating public health risks is much faster and efficient. Acorn has developed a spatial auto-dialer in the CIU. This tool uses the contact information connected to water rate-payers to deliver recorded notices to affected residents. This technology is capable of contacting hundreds of people in a matter of minutes to effectively address public health risks associated with municipal infrastructure.

Benefits

Through the use of the CIU, Acorn is able to quickly identify the areas affected by boil water advisories. The at-risk population can be identified with less time and effort using multi-enterprise data and be notified of potential health risks to ensure public safety is maintained. The partnerships, GIS tools and integrated data could also be used to notify vulnerable populations for any number of possible emergencies.

“If you look at this boil water event as an example, the operating authority contacts us and public infrastructure data allows us to create a polygon around the affected area. And then a whole bunch of things happen in a matter of less than two hours. Through our Vulnerable Persons Registry (VPR) we can identify and contact those who need additional assistance. Using health care data; we can reach the known pregnancies who would be affected; municipal and DSSAB allows us to quickly identify all of the schools, pre-schools, and daycare facilities. Nobody in the world can do that. So, people are interested in how that happens? It works because the data is interconnected and we have great data-sharing relationships.”

- Paul Beach
Manager, Acorn Information Solutions