Study on Canadian Emergency Alert Accessibility

National Survey Results

Plain Language Summary

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Introduction

Emergency alerts are very important. They help us to know about dangerous situations, like crimes or earthquakes. They tell us what to do.

There is a system in Canada called Alert Ready. It sends out emergency alerts to cellphones, TVs, and radios. The alerts may also go out in text messages or on social media. It is important for everyone to get the information to stay safe.

We wanted to find out about emergency alerts and people with disabilities. Some people with disabilities might not be able to see, hear or understand the alerts. This can make it hard for them to stay safe.

We wanted to know if the emergency alert system worked well for people with disabilities. We wanted to know what problems they face with emergency alerts. No one had looked into this yet. Right now, there is no easy way for people to share their ideas on how to make the alerts better.

We want to get this information and share it. This will help companies that make phones and technology to learn how to improve the system. The goal is to make emergency alerts easy for everyone to use and understand.

We did a survey to get this information. The survey was for Canadians with disabilities.

Who gave feedback

We had 505 people fill out our survey. There was a wide range of disabilities represented. They are described below.

- Mobility
- Cognitive
- Hearing
- Vision
- Deafblind
- Speech

What we did

We wanted to know about people with disabilities and emergency alerts. We wanted to know if they had any trouble with emergency alerts. We also wanted to know how to make the alerts better for them.

We made an online survey to get this information. We got help from different disability groups. These groups shared it on their websites and social media.

In the survey, we asked people about the following topics.

- Their disabilities
- The tools or assistive devices they use to help with their disability
- The types of emergency alerts they get
- Any problems they had with getting emergency alerts
- Any ideas they had to improve these alerts

We believe that every problem in this report is important. It does not matter how many people talked about it. It was important to us even if only one person in the survey was affected. Every problem was considered in our recommendations.

How people get emergency alerts

Ways to Get Alerts

People can hear about an emergency in different ways. They may hear the sirens. They may be able to see it from where they live. Or they could get a phone call or find out on social media.

There are also different systems in place to get emergency alerts out. We looked at 6 types of emergency alerts in our survey. Here is a description of each one.

1. **Radio Alerts:** Radio stations stop their programs when there is an emergency. A special sound is played. Then the alert is played in English, French or both.

2. **TV Alerts:** TV stations pause their shows when there is an emergency. A special sound is played. A message about the emergency is shown. The message can include pictures. The alert is shown. It is announced in English or French.

3. **Instant Messenger and Chat Alerts:** Text alerts are sent when there is an emergency. People can sign up to get text message alerts for their area. They can choose which alerts to receive.

4. **Email Alerts:** Email alerts are sent when there is an emergency. These are similar to text alerts. People can sign up to receive emails about emergencies in their area.

5. **Wireless Device Alerts:** Cellphone alerts are sent when there is an emergency. The alerts come through special networks. The alerts show up as pop-up messages with a unique sound.

6. **Emergency Alert App:** An app sends alerts when there is an emergency. People can download an app to get alerts for different areas. Alerts come as notifications. Alerts do not take over the screen.

We asked people about the kinds of emergency alerts they get. We asked about any problems they had with each system. We also asked for their ideas to improve emergency alerts. The sections below describe what we found out.

What we found out

Top problems for each kind of emergency alert

People told us about the top problems they had with each kind of emergency alert. These findings apply across all kinds of disabilities.

Radio Alerts

Words Not Clear

People said that the words in radio alerts were not said clearly. They said that more than half the words, about 55%, were not clear. This makes it hard for them to understand important messages. A lot of people in Ontario and Quebec noticed this issue. A lot of people with low vision noticed this issue.

Alert Volume
People said that the alert sound was too loud. This can make it hard to focus on what the alert is saying.

Here are some insights into the people who reported this issue.

- 55% with low vision
- 60% with hearing loss

Fast Speaking
People said that the alert message was spoken too quickly. This makes it hard to understand.

Here are some insights into the people who reported this issue.

- 66% with disabilities in their arms and hands

Television Alerts

Startling Alerts
People said that the TV alerts startled them. Alerts can be too loud or sudden.

Here are some insights into the people who reported this issue.

- 94% with disabilities in their arms and hands
- 71% with leg disabilities
- 66% with emotional disabilities

Unclear Information:
People said that the information in TV alerts is unclear. This makes it hard to understand the alert.

Here are some insights into the people who reported this issue.

- 63% who are deaf
- 15% who are hard-of-hearing
- 16% with cognitive disabilities

Audio and Text Mismatch
People said that the sound did not match the text on the screen. This can confuse viewers. It may be very confusing for people with cognitive or emotional disabilities. About 41% of people reported this issue.

Need for Pictures

People said they wanted pictures in the TV alerts. But there were no pictures included. This may be because the alerts did not have pictures. But it could be because their device is too old.

Almost 50% of people wanted pictures in the TV alerts, but none were included. This was found across all disabilities.

Difficulty Reviewing Information

People said the information was gone from the screen too quickly. They did not have time to review it. They said they wanted more time to understand the alerts.

Here are some insights into the people who reported this issue.

- 16% with cognitive disabilities
- 52% with partial vision

Wireless Device Alerts

Startling Alerts

Many people found the alert sounds very startling. Some people reported being scared by the alerts. This can lead to panic attacks and other health issues.

Here are some insights into the people who reported this issue.

- 76% with low vision
- 86% with disabilities in their arms and legs

Unclear Information

People and said the information in the alerts was not clear. Many people said that the alerts should have more details. This includes alerts for missing children, like AMBER alerts. Alerts should have the name, age and clothing description of missing people. There should be photos to help identify missing people.

Here are some insights into the people who reported this issue.

- 18% with low vision
- 85% who are deaf

Not Opening Links
People did not click on the links in the emergency alerts. This shows that all the important details need to be directly in the alert. Many found the alerts unclear or hard to follow.

Almost 60% of people did not click on the links in the emergency alerts. This was found across all disabilities.

Reviewing Information
People could not review the information. They had trouble finding it after it disappeared from the screen.

Here are some insights into the people who reported this issue.

- 52% with low vision
- 33% with speech disabilities

Emergency Alert App Alerts

Only 6 people got alerts through emergency alert apps. This means the findings are not clear. This is what they said about alerts on apps.

- **Difficulty Following Information**
  The information in the app alerts was hard to understand. This issue is about the way the alert was written. It is not about the app. Of the 6 people who used alert apps, 4 people had this issue. They were all from Ontario.

- **Link Issues**
  The links in the app alert were confusing. Of the 6 people who used alert apps, 4 people clicked on the links. One person found the links confusing. Generally, the links in emergency alerts do not have clear labels.

- **Video Content**
  Most respondents did not have problems with videos in alerts. This is most likely because very few alerts include videos.

Top overall suggestions to improve emergency alerts

We asked people who took the survey to share their ideas for making emergency alerts better. Here are the top 5 suggestions people made.

Different Alert Levels

On the survey, 75 people wanted alerts to have different danger levels. The level of the alert would let people know how serious the situation is.

Here are some insights into the people who suggested this.

- 23% were from Alberta
- 17% were from Quebec
- 14% were from Ontario

Quieter Alerts

On the survey, 45 people wanted alerts to be less loud. This would avoid startling them.

Here are some insights into the people who suggested this.

- 10% were from Quebec,
- 9% were from British Columbia
- 8% were from Manitoba
- 8% were from Ontario

More Descriptions

On the survey, 41 people wanted alerts to have more details. This would help them to understand the situation better.

Here are some insights into the people who suggested this.

- 12% were from Alberta
- 9% were from British Columbia
- 9% were from Ontario

Easier to Review Past Alerts

On the survey, 35 people wanted it to be easier to look back at alerts. They wanted a way to find and review past alerts.

Smaller Alert Areas
On the survey, 27 people wanted to reduce the area that gets alerts. They wanted alerts to go only to those that are nearby.

Here are some insights into the people who suggested this.

- 9% were from British Columbia
- 6% were from Ontario
- 5% were from Alberta

Specific Recommendations from our survey

We studied the survey responses. We made a list of best practices from the suggestions. These will make emergency alerts easier for everyone to understand. Here are our main suggestions.

Suggestions to Improve Radio Alerts

- **Improve Audio Quality**
  Radio stations should use better audio for alerts. The voices should be clearer. The text-to-speech systems need to be improved. Some robotic voices do not say words correctly. Some listeners have trouble with robotic voices that do not pronounce words properly.

- **Repeat Messages**
  Emergency messages should be repeated 2 times. This will help listeners who might miss something. It will help listeners who do not understand English or French very well.

Suggestions to Improve Television Alerts

- **Read Alerts Aloud**
  All emergency alerts on TV should be read out loud. This should especially happen during pre-recorded shows. This helps people with vision problems know about the alerts.

- **Use Visuals**
  Add pictures, videos and maps at the top of the alert. This will make the information easier to understand. This is helpful for viewers who have trouble reading. It helps people who prefer visual learning.

- **Match Audio and Text**
  The spoken alert should match the text on screen. The pages should change automatically if the alert is long. This will make it easier for viewer to follow.

- **Highlight Words**
  Highlight the words in the alert as they are read. This can help people with reading or learning challenges to follow the alert better.

- **Clear Titles**
  Use specific titles like “Tornado Warning” instead of just the words “Emergency Alert.” Add different icons for each alert type. Icons are pictures or symbols. These icons can help viewers understand quickly.

- **Improve Contrast for Readability**
  Change the alert design. Have white text on a red background for the title. Have black text on a white background for the message. This will make it easier to read.

- **Include Sign Language**
  Add American Sign Language (ASL) and captions to alerts. This helps deaf people understand the emergency. It helps them know what to do.

Suggestions to Improve Wireless Device Alerts

- **Alert Categories**
  Organize alerts by how important they are. Let people choose which alerts they want to receive. Too many unimportant alerts can make people ignore them all.

- **Readability**
  Use normal sentence case instead of all caps. This makes alerts easier to read.

- **GPS Use**
  Use GPS to send alerts that are important to a person's location, especially for emergencies like active shooters or severe weather.

- **Finding Past Alerts**
  Alerts should stay on the screen for a minimum length of time before it can be closed. People can tap on the screen to stop the sound. There should also be a way to see the alert again after it is gone from the screen.

- **Network Coverage**
  Send alerts over both old and new networks. Older networks include 3G and SMS. Newer networks include 4G and 5G. This will help make sure everyone gets the alert, even in bad weather.

- **Visual Information**
  Include pictures, videos and maps at the top of alerts. This will help people understand quickly.

- **Informative Titles**
  Use specific titles like "Tornado Warning" instead of just "Emergency Alert." Make it clear what the alert is about.

- **Hearing Aid Adjustments**
  Lower alert sounds when headsets or hearing aids are in use. This will avoid echoing sounds.

- **Language Detection**
  Make sure alerts can switch between English and French automatically. This will help people to better understand.

- **Public Alerts**
  Install alert systems in public places. This will make sure everyone can get warnings even if they do not have a phone.

- **Silent Alerts**
  Allow dangerous person alerts to be sent quietly, like through text messages. This will help keep people safe.

Suggestions to Improve Alert Messages Phrasing

- **Clear Templates**
  Use a standard format for alerts. This will make sure all important information is included. It will help make sure it is translated correctly.

- **Plain Language**
  Write alerts in simple language with clear steps. Use bullet points for easy reading.

- **Equal Information**
  Make sure English and French alerts have the same details. This will help to keep everyone safe.

- **Emergency Numbers**
  Use spaces or hyphens to format emergency numbers. This will prevent accidental calls.

- **Social Media Links**
  Add links to social media for faster updates. Social media can handle more traffic than websites.

- **Text-to-Speech Clarity**
  Use a clear format for links and license plate numbers. This will make it easier for text-to-speech systems to read correctly.

- **No Numbers in Links**
  Avoid using numbers in links. These can be confusing when read out loud.

- **Timestamps**
  Include the time alerts were sent. This will help people to know if they have seen the alert before.

- **Status Updates**
  Describe changes in emergencies related to previous messages. This will help people to understand the situation better.

Suggestions to Improve Alert Message Targeting

- **Smaller Alert Areas**
  Make AMBER alerts and dangerous person alerts only go to people nearby. This will keep alerts relevant to those in the area. Use GPS to help decide who should get the alerts.

Suggestions to Improve Alert Message Sounds

- **Different Sounds for Alerts**
  Use unique sounds for different types of alerts. Have different sounds for AMBER alerts and weather alerts. This will help people to know what kind of danger it is right away.

- **Visual Alerts**
  Add flashing lights or smart home features to alert people who are deaf or hard of hearing.

Suggestions to Improve Emergency Alert Websites

- **Interactive Maps**
  Include maps on alert websites. Maps should show the status of wildfires or storms. Make sure these maps are easy to use for everyone. Make sure the maps can be used with screen readers.

- **Language Options**
  Provide translation options on alert websites. This will help people who do not speak English or French at home.

- **Read Aloud Feature**
  Add a button that reads the alert out loud. This will help those who have trouble reading.

- **Simple Design**
  Make sure the website is easy to use. Make sure that helpful features are easy to find.

- **Captions and Sign Language**
  Include captions and American Sign Language (ASL) or Langue des signes du Québec (LSQ) in alerts. This will help deaf people to understand the danger.

Suggestions to Improve Other Devices

- **More Ways to Get Alerts**
  Use different methods to send alerts. Use streaming services. Many young people do not use traditional TV.

- **Streaming Notifications**
  Add alerts to smart TVs and computers. This will help people see alerts based on their location.

- **Cellphone Access**
  Remember that not everyone has a cellphone. It is important to use radios and TVs to reach those people.