

The Complete Guide to **Panic Buttons in Healthcare**

911^{cellular}



Overview

I've had the privilege of successfully deploying hundreds of thousands of panic buttons over the course of my career. Looking back on these experiences (over 30 years worth) the only absolute truth, which appears time and again, is that no two healthcare systems are exactly alike.

It happens without fail! My counterparts at hospitals uncover something unique, something very specific, that was previously unconsidered but is critical to the organization's safety. Whether it be dead spots in certain areas, medical devices interfering with signals, new construction, or countless other unpredictable factors, I've learned there's no such thing as a one-size-fits-all panic button deployment. These experiences compel me to write this guide and shed light on the various types of panic button systems, highlighting the advantages and disadvantages of each.

It's my hope that this guide enables you to understand the factors that make your environment unique so that you can confidently select and deploy the best panic button technologies for your enterprise.



Panic button categories

Almost all modern panic buttons fall into one of three categories:

- ▶ Hardwired
- ▶ Wearable
- ▶ Software based

Panic button systems in each of these categories have pros and cons that make them better in some environments and worse in others. Let's take a look at each category.

Hardwired panic buttons



Hardwired panic buttons started to gain popularity in the 1970s as a way to allow bank tellers to silently activate a distress signal. As the name implies, hardwired panic buttons are generally installed by a certified professional who runs cabling that connects the panic button to the communication network and power source. Within healthcare, the most common placement of hardwired panic buttons is at reception / check in stations.

✓ PROS of hardwired panic buttons

- ▶ **Dedicated network** - Hardwired panic buttons generally have their own communication methods and do not rely on infrastructure available to the public.
- ▶ **Familiarity** - Almost everyone is familiar with under-the-counter style buttons. This familiarity makes hardwired panic buttons easy to use during an emergency.

✗ CONS of hardwired panic buttons

- ▶ **Lack of mobility** - Because hardwired panic buttons are physically connected, they can only be activated when a caregiver is in the ideal position (which rarely happens during an emergency).
- ▶ **Implementation challenges** - Deploying hardwired panic buttons is a labor intensive process that involves physical access to sensitive areas, usually by a certified installer.
- ▶ **Cost** - The cost per button is high compared to other panic button types.

Most common uses for hardwired panic buttons

Hardwired panic buttons are most commonly deployed to:

- ▶ Emergency room entrances
- ▶ Behavioral health clinic entrances
- ▶ Executive suites

What types of environments are hardwired panic buttons right for?

Hardwired panic buttons are well suited for small scale deployments to departments that are likely to remain for several years. The ideal environment includes a reception area that's frequently staffed.

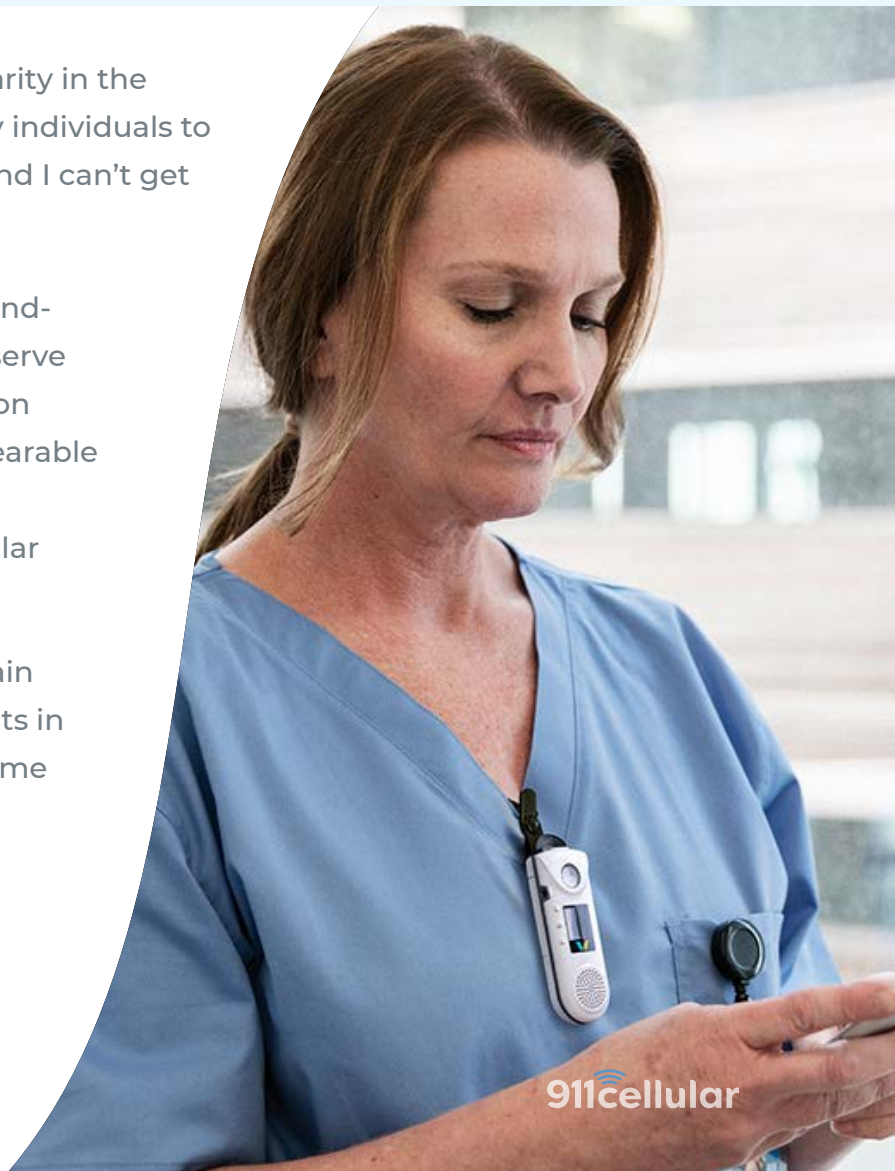
As well, hardwired panic buttons are also well suited for environments with poor network connectivity and other communication challenges.

Wearable panic buttons

Wearable panic buttons gained popularity in the 1990s as a means of connecting elderly individuals to assistance (remember the 'I've fallen and I can't get up' campaigns?).

Wearable panic buttons are often a stand-alone device but certain systems also serve as a photo ID or broader communication system. The most common types of wearable panic buttons connect to a network using RFID, Bluetooth beacons or cellular technology.

Wearable panic buttons continue to gain traction within healthcare environments in large part because of their mobility. Some wearable panic buttons will come with attachments so they can be clipped to clothing, keychains, lanyards or other easily accessible objects.



✓ PROS of wearable panic buttons

- ▶ **Mobility** - Wearable panic buttons are designed to be physically connected to a person, not a site. Because of this, wearable panic buttons are accessible at most times.
- ▶ **Easy to use** - Wearable panic buttons are generally activated with a single button, making them very easy to use during an emergency situation.
- ▶ **Location accuracy** - If the wearable is using RFID or Bluetooth beacons for location reporting, it's likely the location reporting capabilities are very accurate (note: this is not the case if the button is using a cell phone's GPS).

✗ CONS of wearable panic buttons

- ▶ **Battery dependent** - Most wearable panic button devices require batteries for power, which leave them susceptible to failure if they are not regularly charged.
- ▶ **False activations** - The ease-of-use can be a negative factor if proper measures are not in place to limit the number of false activations. False alarms can be easily triggered simply by bumping into someone or placing a wearable in a bag.
- ▶ **Potential to forget** - Caregivers can (and will) accidentally misplace buttons, forget them at home, etc. Be prepared for this and order a few extra buttons.
- ▶ **Cost** - Wearable panic button systems that use RFID or Bluetooth technology require large scale hardware implementations, adding significant expense to the project.

Most common uses for wearable panic buttons

Wearable panic buttons are most commonly deployed to:

- ▶ Home health providers
- ▶ Emergency room staff

What types of environments are wearable panic buttons right for?

Wearable panic buttons are almost always strategically deployed to high risk groups and not to all employees. Wearable panic buttons are ideal for protecting very specific groups (such as home health providers).



Software based panic buttons

Software based panic buttons are applications which are installed on other devices, such as cell phones, tablets and computers. Software based panic buttons are the newest innovation in this space and have just recently become popular within healthcare.



✓ PROS of software based panic buttons

- ▶ **Wide coverage** - With computers in almost every room, software panic buttons can be deployed to a large area very easily, which creates a wide coverage zone.
- ▶ **Flexible** - Because there is no additional hardware needed, software panic buttons are highly adaptable to the changing needs of healthcare facilities.
- ▶ **Cost** - Software panic buttons tend to be the most cost-effective option for wide-scale deployments.

✗ CONS of software based panic buttons

- ▶ **Device dependent** - It's important to consider the availability of computers, cell phones and tablets because software panic buttons require them to function. For example, a cell phone based panic button system should not be deployed to caregivers who frequently don't have their phones nearby.
- ▶ **Additional training** - Software panic buttons are relatively new to healthcare and caregivers often require additional training / instruction before feeling comfortable with these systems.

Most common uses for software panic buttons

Software panic buttons are most commonly deployed to:

- ▶ Reception areas
- ▶ Exam rooms
- ▶ Surgical suites
- ▶ Workstations on wheels

What types of environments are software panic buttons right for?

Software panic buttons are ideal for enterprises seeking to deploy a very large number of panic buttons. Because computers, cell phones and tablets have permeated healthcare facilities, software panic buttons can be deployed far and wide without on-site disturbances.

Additional considerations

While exploring various types of panic button systems, you should also consider the following:



Testing panic buttons

Panic buttons must be tested regularly. Some systems offer automated testing tools, while others require manual effort. In general, if your staff is thin or you're deploying a large number of panic buttons, you will benefit from automated testing.



Single vendor solutions

The optimal deployment strategy often involves a combination of multiple panic button types. Selecting a system that contains a variety of panic button types reduces deployment and ongoing maintenance costs.



One-time vs. recurring costs

All panic button solutions will require a combination of one-time and recurring costs; this is unavoidable due to maintenance costs. It's important to consider which expense type best suits your system.

Successful deployment

Congratulations, you've selected a system! Now is the time to start considering the best ways to facilitate a seamless rollout to production. Here are some tips to help you along this path.

Establish consistent communication workflows

To set your project up for long term success, it's important to establish and implement consistent communication workflows. You should consider the following:

- ▶ ***Who are the primary responders?*** Is this group the same throughout the entire organization or does the answer change depending on the specific site?
- ▶ ***How will you alert responders?*** Do these responders have phones? Radios? Are they in front of computers? Establishing this up front will allow you to build the best system for your enterprise.
- ▶ ***Who else should be looped into the response?*** In many cases, site administrators want to be notified when a panic button is pressed. Is this the case within your enterprise?



Start small

Identify a pilot site / area and rollout the first wave of panic buttons to this area. Generally, the highest risk areas (emergency departments, behavioral health areas, etc.) are best recipients of the pilot panic buttons. It's best to run the panic button system within the pilot site for at least 1 month. This period of time is a great opportunity to iron out any remaining issues before going wider.

Make job aides and training tools

Regardless of which panic button system you deploy, it's critical that your caregivers be trained so they understand how to use the system and what to expect when they do so. Ideally, this training should be made available on your enterprise's intraweb so that new employees can access it at any time.

Create a routine testing schedule

Your job isn't quite done just because you've deployed. Be sure to have a good testing plan in place. If your system has automated testing, that's great and you may not need this tip... otherwise, be prepared to create a procedure here.



About the Author

Chad Salahshour founded 911Cellular after a lifetime of dedicated service as a law enforcement officer which began over three decades ago. Chad entered law enforcement in response to the 1988 terrorist bombing of Pan Am Flight 103, which killed his niece along with 258 passengers and crew members. Since that day, Chad took an oath to protect and serve others which continues to this day as his company develops lifesaving panic button solutions.