


Are Your 9-1-1 Operators Trained to Respond to TTY Calls?

Ensuring equal access to the emergency response team is the responsibility of the call center supervisor.



I awoke feeling nauseated, light-headed, and weak. Hoping for assistance and comfort, I nudged my wife. She didn't respond until I shook her forcefully. Then, she appeared disoriented and also very sick. Alarmed, I ran into the bedrooms of each of our three children. Two of them I couldn't arouse. The third had symptoms similar to ours. I ran to the telephone, put the handset into the TTY* and dialed 9-1-1. The light on the TTY indicated that there was a connection, and I tried to alert the operator to the fact that it was a TTY call by depressing some of the keys several times, but I was disconnected. It wasn't until the fifth try, that the operator recognized that the call was from a deaf person and responded with a TTY.

THE ABOVE IS A TRUE STORY FROM A FATHER WHOSE entire family is deaf. It highlights the hazards of deafness. Deaf people not only are subject to the same emergencies as everyone else, but their deafness makes them vulnerable to other types of emergencies.

*TTY stands for teletypewriter. TDD also is used for the same device and is short for telecommunications device for the deaf. TTY is the preferred acronym.

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In this instance, carbon monoxide was being released by their car, which was left running in the garage under the house. Because all of the family members are deaf, none of them heard the motor running. People who are deaf are more likely to not be aware of water running, intruders, breakages, calls for help, crashes, or other circumstances in which sound is the alerting factor.

This story's ending was not as tragic as it might have been—the 9-1-1 operator could have continued to hang up, the rescue team never would have arrived and some people might have died. Such circumstances should not be allowed to occur. However, ask many deaf adults and you will get an animated recounting of similar harrowing experiences by deaf callers to 9-1-1 operators.

Is Your Staff Trained in TTY?

Now, ask yourself this question: Are my local 9-1-1 operators trained to effectively respond to TTY calls? If you can't answer this with a positive "Yes," then what will you do about it? Training in recognizing TTY calls is necessary, but this is not the complete answer.

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9-1-1 TALK

Public safety personnel discuss pertinent issues related to the 9-1-1 industry in this regular column.

The 911Talk email list server provides a forum for NENA members to interact with other members and their peers—discussing current events, asking for help with a problem, exchanging ideas, and much more. Once you join the list, you can send a message that all members of the list receive—no matter where they may be located. Below is a sampling of the many topical discussions found on 911Talk.

For more discussions on 9-1-1 issues go to www.nena9-1-1.org and click on 911Talk E-mail list.

Shift Differential

I'm looking for information from agencies that offer a pay incentive for people working shifts other than the normal day shift. Does anyone do this? If so, how much do you offer? Also, what do you do in instances of trainees who are on one of these shifts for their normal training rotation? Do you stipulate that the differential is only for those who are off probation?

If anyone can provide any information and/or policies they have regarding this it would be greatly appreciated!
Michelle Weston, Communications Training Officer, City of Coconut Creek (FL)

Our people make an extra dollar per hour for every hour worked between 1800 and 0600. It is paid as a separate line item on their checks, and it is paid at time and a half if they are on overtime. To see the actual language in the contract, go to: www.redondo.org and use the drop down menus for "City Offices" then "Human Resources" and finally

"MOU's/Labor Contracts". Select the MOU for "RBCEA" and you'll find all of the information in that pdf.

Edward Radomsky, Communications Supervisor/C.A.D. Systems Manager Redondo Beach Police Department (FL)

We pay 50 cents an hour for anyone working second or third shift (2:35 p.m. to 7 a.m.).
Mallorie F. Wamsley, ENP Director, Sangamon County Emergency Telephone System Department (Springfield, IL)

Anyone working the midnight shift (midnight to 8 a.m.) gets an additional 50 cents an hour. This includes trainees.

Sheila O'Sullivan, Police Service Aide Administrator, Port St. Lucie Police Department (FL)

We do not pay shift differential, but we have rotating 12-hour shifts, and I would have a mutiny if I tried to take them off of it. They start on Wednesday night: four shifts of 6 p.m. to 6 a.m.; then off four days then Wednesday three shifts of 6 a.m. to 6 p.m.; off one day the Sunday three shifts of 6 p.m. to 6 a.m.; off three days on Saturday four shifts of 6 a.m. to 6 p.m.; then off seven and it starts again. During the seven-day break one of them is on call and, depending on how many you have per shift depends on how often they pull on call. I have three per shift, so it works out to on call once every three months. I have four shifts each with a shift leader, and one training supervisor.

Donna Carrier, Communications Manager, Central Dispatch, City of Kingsport (TN)

This may vary depending on your call load and how your volume spreads out over a 24-hour period, but keep in mind that constantly working midnights may erode some call handling skills. If midnights are always low-volume, and not much ever happens after all the citizenry is home after last call on the weekends, it's easy to lose your edge for handling The Big One when it inevitably comes. In my experience it has been a good idea to avoid having staff work the same shift (any shift) indefinitely. You don't need to exclude them from working one shift primarily, but everyone needs to keep their skills sharp for the kinds of calls that happen on other shifts.
Dwayne C. Smith, Project Manager, Robert Kimball & Associates (Rockville, MD)

At our center we rotate shifts every six weeks. For swing you get about 50 cents an hour and for grave I think it is 75 cents an hour. You don't have a choice on what shift you are on. Probationary employees also get the same differential as any dispatcher. We are a primary PSAP with a dispatch population of around 100,000. Hope this helps you.

John Palmer, Dispatcher/Trainer, Cowlitz County 9-1-1 (Kelso, WA)

We don't worry about differentials as everyone rotates so everyone eventually works the night hours. Of course, we are on 12-hour shifts, so a rotating schedule is real easy and the personnel love it.

MSgt. Edward F. Scherer, III, Boone County Sheriff's Office (Belvidere, IL) ENPM

“ 9-1-1 service centers (regardless of size and number of employees) are included in the term *public entity* and are required to provide direct access to 9-1-1 services by callers using TTYs or computers that have software that are equipped to function like TTYs. ”

Repeatedly, deaf people have encountered difficulties getting through to PSAPs. Even when PSAPs have TTYs or TTY-compatible equipment, telecommunicators still may not recognize an incoming TTY call. This problem is caused by several factors, including:

1. TTY calls are few and far between, giving telecommunicators little experience with recognizing calls.
2. PSAPs get many hang-ups, and the assumption is often made that a TTY call is a hang-up as well, particularly if the deaf caller does not make his or her machine emit the distinctive TTY tones.
3. Many telecommunicators are not trained to recognize calls, use TTYs or understand the written language of deaf callers (TTY gloss) who do not use standard English.

Language Confusion

Many deaf people, especially those with congenital disabilities, do not have a good command of the English language because they have had limited exposure to and/or use English as their second language. Their first language is American sign language (ASL), which is a visual/spatial language made with the hands, head and upper body. It has no written form and does not follow English rules. When communicating by typing over the TTY, many deaf people make numerous errors that are attributable to such factors as, putting English words in ASL order (e.g. “Accident me see.”) or following ASL rules (e.g. putting nouns before adjectives); omitting punctuation; confusing words that, when lipread, appear the same as another (e.g. incest, insect); and, substituting words that are more representative of the sign than the actual English word that would be used (e.g. bones for poison). They also may be unfamiliar with English vocabulary even when they know the word in ASL, or the concept. For example, many deaf people do not know some words, such as, contractions, palpitations, larceny or intruder. Medical terminology may be particularly unfamiliar (e.g. Heimlich maneuver, cardiac arrest, hemorrhage, tourniquet, etc.). Idiomatic expressions frequently do not translate well from one language to another. For example, idioms such as, “stay on the line,” “hold” and “passed out” cannot be translated literally.



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ADA as It Relates to 9-1-1

The Americans with Disabilities Act (ADA), Public Law 101-336 became effective on January 26, 1992. It prohibits discrimination by public entities on the basis of disability. Subtitle A of Title II of this act protects individuals with disabilities from discrimination on the basis of disability in accessing public service programs (e.g. police, fire and rescue departments) or activities of all state and local governments. It establishes requirements for making programs accessible to individuals with disabilities and for providing equally effective communications. The ADA sets forth standards for what constitutes discrimination on the basis of mental or physical disability, and establishes a complaint mechanism for resolving allegations of discrimination.

Sections of this act relate specifically to communications with the public and public services, such as 9-1-1:

Title II, Subpart E-Communications, '35.160 General

(a) A public entity shall take appropriate steps to ensure that communication with applicants, participants, and members of the public with disabilities are as effective as communications with others.

(b)(1) A public entity shall furnish appropriate auxiliary aids and services where necessary to afford an individual with a disability an equal opportunity to participate in, and enjoy the benefits of, a service, program, or activity conducted by a public entity.

(2) In determining what type of auxiliary aid and service is necessary, a public entity shall give primary consideration to the requests of the individual with disabilities.

Title II, Subpart E-Communications, '35.162 Telephone emergency services

Telephone emergency services, including 9-1-1 services, shall provide direct access to individuals who use TTYs and computer modems.

'35.162 requires public entities to take appropriate steps, including equipping their emergency systems with modern technology, as may be necessary to promptly receive and respond to a call from users of TTYs and computer modems. Entities are allowed the flexibility to determine what is the appropriate technology for their particular needs.

'35.133 requires public entities not only to have TTY equipment, but also to maintain in operable working condition, TTYs and other devices that provide direct access to the emergency system.

Two other requirements of the ADA are *training and equal public-ity of accessibility*; therefore, 9-1-1 service centers (regardless of size and number of employees) are included in the term *public entity* and are required to provide direct access to 9-1-1 services by callers using TTYs or computers that have software that are equipped to function like TTYs (e.g. *myTTY*, a multifeatured software program.)

The 9-1-1 center also must adequately maintain the equipment that provides this access. Where 9-1-1 telephone services are available, a separate seven-digit telephone line must not be substituted as the sole means for non-voice users to access 9-1-1. However, an entity may provide a separate seven-digit line for use exclusively by non-voice callers in addition to providing direct access for these calls on the 9-1-1 line.

Where a 9-1-1 line is not available and the public entity provides emergency services through a seven-digit number, it may provide two separate lines—one for voice calls and one for non-voice calls—rather than providing direct access through one line.

However, the entity must ensure that the services provided on the non-voice line are as effective in terms of time of response and availability in hours as the voice line. Also, the non-voice number must be publicized as effectively as the voice number and displayed as prominently.

Meeting the Requirements

In order to meet the requirements of the ADA, the industry has responded in terms of development of TTY-accessible equipment and training packages. TTY's have been around for many years and cost approximately \$250 to \$1,000. If a PSAP elects to purchase a stand-alone TTY, it is definitely recommended that it have several optional features—print capabilities and function keys. Most TTYs have digital displays of the conversation, but some have printing capabilities as well. Printing the conversation enables the telecommunicator to better decipher the conversation if the caller is not using standard English (with a digital display, only a few words appear at a time) and to preserve the conversation for later diagnosis or for protection against liability. Some TTYs have full screen capability. This definitely has advantages over a small display. Function keys allow the telecommunicator to program certain standard responses (e.g. "The ambulance has been sent."). This will improve the speed of the conversation, since TTY calls typically take longer to process than voice calls. Care should be taken when programming the function keys to avoid complicated vocabulary, sentences or idiomatic expressions such as, "Stay on the line," or "Did you encounter the perpetrator?" which do not translate literally into ASL. In these instances, it would be preferable to say, "Don't hang up the phone," or "Did you see the person who came into your house uninvited?"

Currently, several companies have enhanced systems that have TTY detection and answering capabilities. Some of these products can detect both Baudot (TTY) and ASCII signals, and automatically move the telecommunicator into TTY response (as opposed to voice) mode. Equipment also is available to detect calls and automatically route them to a specific console that has TTY answering capability.

The U.S. Department of Education funded the development of a multimedia training package by the Institute for Disabilities Research and Training, Inc. (Silver Spring, MD) that provides instruction on such topics as how to use TTYs, why special consideration is to be given in emergency response situations when the caller has a hearing loss, how to interpret TTY gloss (the written communication of deaf people who do not use standard English), and what are the ADA legal requirements pertinent to PSAPs. Such training has enabled telecommunicators to more efficiently use their equipment, interpret TTY gloss, and be sensitive and responsive to the deaf and hard of hearing when making a call to the emergency number.

Conclusion

9-1-1 operators and their supervisors should want deaf people to have access to their service not because it is the law and that they may suffer some governmental penalty, but because it is the right and responsible thing to do. Those citizens who need to use a TTY to communicate over telephone lines should be able to dial 9-1-1 and receive the necessary emergency service just like a hearing person would. Fortunately today both equipment and training assistance are available to help ensure equal access to the emergency response team. **ENPM**

Corinne K. Vinopol, Ph.D. is the owner and president of the Institute for Disabilities Research and Training (Wheaton, MD). She can be reached at (301) 942-4326 or via e-mail at corinne.vinopol@idrt.com.