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EFFECTIVE STRATEGIES, TOOLS, AND ACTIONS IMPLEMENTED BY THE EMERGENCY AND SECURITY SERVICES IN THE REGION TO INCREASE THE LEVELS OF INCLUSION OF PERSONS WITH DISABILITIES

DOCUMENT OF EXPERIENCES No 2

STG-ESS/INF.18/21

Effective Strategies, Tools, and Actions implemented by the Emergency and Security Services in the Region to increase the levels of inclusion of persons with disabilities

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The Organization of American States (OAS) is the main political forum in the region, bringing together all the independent nations of the Western Hemisphere to jointly promote democracy, strengthen human rights, promote peace, security, and cooperation, and advance in achieving common interests. Since its origin, the OAS has had the main objective of preventing conflicts and providing political stability, social inclusion, and prosperity in the region through dialogue and collective actions such as cooperation and mediation.

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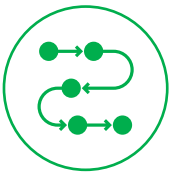
Effective strategies, tools, and measures implemented by Emergency and Security Services (or similar agencies) in the Region to increase the levels of inclusion of persons with disabilities

I. INTRODUCTION

According to the Pan American Health Organization, it is estimated that almost 12% of the population of Latin America and the Caribbean lives with at least one disability, which represents around 66 million people.[1]

Taking this regional situation into account, Recommendation No. 4 in the Document of Recommendations emerging from the First Meeting of the Subsidiary Technical Group on Emergency Systems and Security (STG-ESS), held virtually from May 6 to 7, 2021, encouraged the Systems or similar agencies to take the following steps:



Develop emergency assistance and response protocols for people with disabilities and mental health problems

Provide proper training and education for operators and dispatchers

Incorporate communication technologies to be able to interact with people with disabilities, allowing them to report emergency situations

1 PAHO. Disability https://www.paho.org/en/topics/disability.

Pursuant to the foregoing Recommendation, the OAS Department of Public Safety (DSP/OAS) and ECU 911 Integrated Security Service (SIS ECU 911, for its Spanish acronym) – the latter in its capacity as Chair of the STG-ESS – on Wednesday, September 8, 2021, organized a discussion on inclusion and accessibility for persons with disabilities in emergency assistance and response. Panelists and officials from the following institutions took part:

9-1-1 Emergency System, Costa Rica

SIS ECU 911, Ecuador

National Information Center, Mexico

911 Emergency System, Paraguay

SIS ECU 911 Director Juan Zapata did the honors in introducing the topic, while the final remarks were given by:

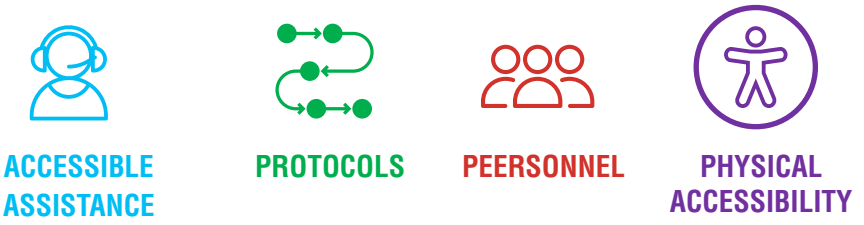
- Mercedes Carrillo, Legal Officer, Department of Social Inclusion, Organization of American States (OAS)
- Alex Camacho Vasconez, Regional Advisor on Emergency Preparedness and Disaster Risk Reduction, Health Emergencies Department, Pan American Health Organization (PAHO)

Acting as Technical Secretariat to the STG-ESS, DPS/OAS circulated a questionnaire among the permanent missions to the OAS and the region's emergency and security systems (as well as to similar agencies), to gather information about any effective strategies, tools, and measures that have been implemented to provide greater inclusion and accessibility in emergency assistance and response to people with disabilities.

Costa Rica's 9-1-1 Emergency System, Ecuador's ECU 911 Integrated Security Service, Honduras' National 911 Emergency System, the National Information Center of the Executive Secretariat of the National Public Security System of Mexico, and Panama's National 9-1-1 Emergency System replied to the questionnaire within the deadline.

This second Document of Experiences by the Subsidiary Technical Working Group on Emergency and Security Systems (STG-ESS) stems from the systematization of presentations made during the event and the analysis of the questionnaires provided by the institutions that decided to participate in the consultation.

The systematization gathers the strategies, tools, and measures implemented by Emergency and Security Systems or similar agencies in the region to achieve greater levels of inclusion and accessibility for people with disabilities. Furthermore, it groups them under four thematic sections:

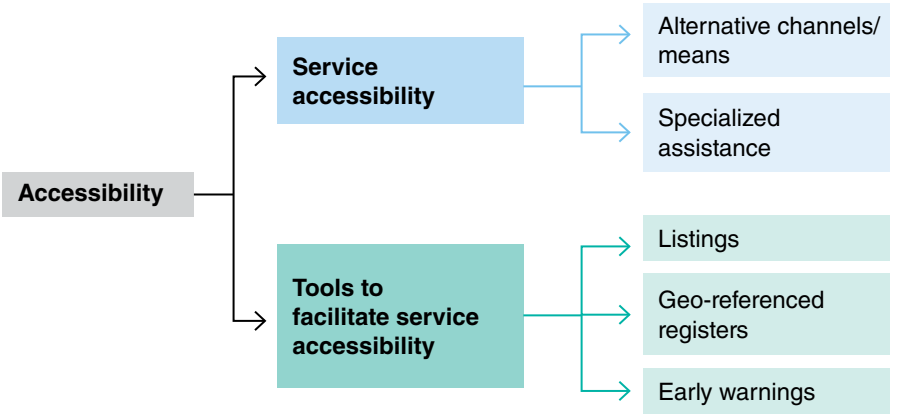


The first thematic section, on accessibility, is structured around two core issues: (a) service accessibility and (b) tools to facilitate service accessibility. The first core issue is then divided into two subtopics:

- Alternative channels/means
- Specialized assistance

In terms of tools to make it easier for people with disabilities to access emergency assistance, the consultation covered three aspects:

- Listings of persons with disabilities
- Geo-referenced registers of persons with disabilities
- Early warning



Tools to facilitate service accessibility are presented for two scenarios:

- Everyday emergencies
- High-impact emergencies

Everyday emergencies	Listings of persons with disabilities Geo-referenced registers of persons with disabilities
High-impact emergencies	Early warnings

The third thematic section, on personnel, was structured around two lines of consultation:

- Staff composition and training, by type of task (operational and administrative)
- Training that staff receives on the topic

This hemispheric systematization exercise is guided by and based on several objectives:

- To understand the status of inclusion and accessibility for persons with disabilities in emergency and security systems and similar agencies in the region, from two perspectives: as workers and as users
- To learn about strategies, tools, and measures that have been implemented to improve inclusion and accessibility for persons with disabilities
- To ensure transfer of experiences and learning in this field, among emergency and security systems and similar agencies
- To identify possible lines of action on this issue for the short-, medium-, and long terms

II. REGIONAL OVERVIEW

2.1 Service accessibility

2.1.1 Alternative service channels/means

Four of the five systems that took part in this exercise reported having an alternative channel or means for people with disabilities to report an emergency, in addition to the telephone line.

These 4 systems developed and activated a mobile app, and one of those four – Costa Rica's 9-1-1 Emergency System – also activated an institutional cellular number.[2]

4 4 created a mobile app

1 activated an institutional cell phone number

Table 1 below shows the distribution of these two alternative channels/means by country and by emergency system or similar agency.

TABLE 1:
Alternative channel/means adopted

Alternative channel/means	Costa Rica SE 9-1-1[3]	Ecuador SIS ECU 911	Honduras SNE 911	Mexico CNI[4]
Mobile app	☑	☑	☑	☑
Cellular	☑			

2 Information on the 9-1-1 App was presented at the Second Discussion for 2021, organized by the Subsidiary Technical Group on Emergency Systems and Security on September 8, 2021. Meanwhile, the institutional cell phone number was reported via the questionnaire that was circulated among emergency systems and similar agencies.

3 The 9-1-1 App project roll-out was structured in three stages. When the project was being presented at the Second Discussion, it was at the first stage, which involved developing the interactive chat and an emergency button. The second stage has been conceived for the creation of interactive characters in Costa Rican sign language, in order to be able to interact with the users of the app. The third stage focuses on enabling video conferencing functionality for a sign language interpreter to be able to support the hearing-impaired.

4 CNI, for its Spanish acronym. The application reported by Mexico's CNI comes with text messaging, a panic button, and GPS locator. It gives the user the option to select the type of emergency he/she is experiencing and needs to report.

* Cellphone icon: Created by the startup Grap, for the *Noun Project*.

Implementing these alternative channels or means meant resolving a set of problems and dealing with a number of obstacles. These are outlined below in an effort to inform those who may be thinking of developing a similar app to be aware of challenges they might run into along the way.

Alternative channel/means	Obstacles encountered
Mobile app	1 Set app to suitable colors, size, and font for people with disabilities. 2 Coordinate with other institutions to register persons with disabilities into the app, taking an inclusive approach and complying with information security standards. 3 Adapt the app so that it could also be used to report incidents of gender-based violence, without endangering the person´s life or his/her physical integrity. 4 Lack of access to smartphones. 5 Mobile phones not having enough memory. 6 Use of apps is not widespread among the population. 7 Ignorance as to the app's existence. 8 Limited trust in apps as official means of reporting emergencies or requesting assistance. 9 People's reluctance to fill out the profile with their information. 10 Low demand from people with disabilities. 11 Not all hearing-impaired people are familiar with or use sign language; sign language use and type may vary within a given community. 12 Availability of suitable and sufficient funds, including to maintain and keep the app working.

Alternative channel/means	Obstacles encountered
Institutional cell number	1 Physical space to receive and handle video calls. 2 Costs of sign language interpreters. 3 Launch and disseminate the new channel/means among members of the deaf community.

Likewise, activating these alternative channels/means also yielded a series of noteworthy achievements and benefits. These may serve as evidence to argue for and defend the development and implementation of these kinds of solutions.

Alternative channel/means	Achievements/ Benefits
Mobile app	1 The hearing- or speech-impaired can access the service and receive assistance in emergency situations. 2 Streamline and speed up emergency assistance and response processes. 3 Geo-referencing of emergency locations is more accurate. 4 Real-time collection of information, including video recordings and photos, which can be extremely useful in handling emergencies and calibrating responses. 5 Generation of statistics to inform specific measures to improve emergency services for people with disabilities. 6 Strengthening of technology platforms. 7 Increased perception of security by service users.

Alternative channel/means	Achievements/ Benefits
Institutional cell number	1 Access for members of the deaf community to up-to-date, official information on COVID-19 and the pandemic. 2 Calls to request information about the COVID-19 pandemic, allowed for the identification of emergency situations that were referred and addressed by 9-1-1 personnel.

2.1.2 Specialized assistance

Among potential strategies to make emergency services more accessible for persons with disabilities, the questionnaire included a question about whether there were agreements, or arrangements with specialized organizations to provide support in emergency assistance response (whether by telephone, in person or by other means).

Of the five institutions that replied to the questionnaire, two reported that they did receive this kind of specialized support. As regards SIS ECU 911, this support is provided by two institutions:

Communication Mediation Center for the Deaf

Ecuador´s Federation for the Deaf

In terms of Mexico's National Information Center, this specialized operational support is provided by Teletón Foundation, a non-profit organization that has activated a dedicated line for people with some form of disability, particularly children and adolescents. Emergency situations involving people with disabilities, may be referred to this dedicated line.

Teletón Foundation

2.2 Tools for service accessibility

2.2.1 Everyday emergencies

With regard to everyday emergencies, the questionnaire inquired about the use of two tools to identify and locate persons with disabilities:

Everyday emergencies can mean regular incidents that occur on a daily basis (very frequent occurrence). These emergencies tend to be concentrated geographically and in time, each incident involving individual people or a small number of people.

Listing of persons with disabilities

Geo-referenced register of persons with disabilities

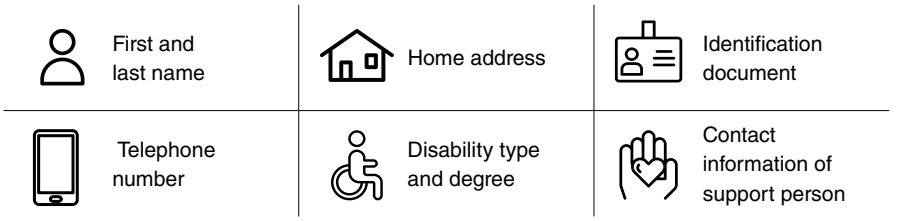
2.2.1.1 Listing of persons with disabilities

One of the five systems or similar agencies that took part in the exercise said it had a listing of people with disabilities built into the call systema and the computer-aided dispatch.

Listings of this kind have the following advantages:

- Quick verification of an individual's identity, basic demographic data, and the type of disability involved
- Reduces the time spent gathering information
- Expeditious application of the relevant emergency protocols
- Calls are more accurately routed according to type of disability

In general terms, depending on the country, developing a list of persons with disabilities would have to be coordinated with the public agency or consortium of public institutions responsible for public policies focused on promoting human rights, inclusion, participation, and well-being of persons with disabilities. At a minimum, listings of this kind would have to include the following information fields:



2.2.1.2 Geo-referenced register of persons with disabilities

None of the 5 systems or similar agencies that took part in this systematization exercise reported having a geo-referenced register of persons with disabilities.

A geo-referenced register of persons with disabilities would, automatically whenever possible, locate a person with disability geographically and spatially, regardless on whether that person is contacting the emergency system through the emergency number or an alternative channel. This kind of tool would, in any event, make it easier to find a person with disability, without that person having to speak. This is another advantage of the tool, especially where hearing- and speech-impaired persons are concerned.

A geo-referenced register of people with disabilities could be put together drawing from landlines, cell phone lines, and IP-based connections. At a minimum, this register should have the following information fields:

Location data (1)	Political-administrative unit (2)	Telephone operator
First and last name	Home address	Identification document
Telephone number	Disability type and degree	Medical conditions (3)
Blood type	Contact information of support person	Nearest base radio

(1) Location data must be expressed in latitude and longitude, and in WGS84 format with decimal degrees.
(2) While political and administrative divisions vary from country to country, at least three levels could be considered: province/department/state; municipality/canton; and neighborhood/parish.
(3) Medical conditions may include pre-existing medical conditions, allergies, and medications an individual is taking.

2.2.2 High-impact emergencies

With early warnings, simultaneous mass messaging can be used to alert the public to high-impact emergencies.

High-impact emergencies may be understood to mean unusual, infrequent, and high-impact incidents in terms of geography (spread out over a territory, affecting several areas concurrently), time (lasting over time), and human impact (affecting a large number of people simultaneously).

This line of inquiry was aimed at finding out whether the region's emergency and security systems (or similar agencies) have the capability to issue such alerts using multiple channels, according to the types of disability identified among the target population. In that regard, none of the five institutions that completed the questionnaire reported having a mechanism for issuing early warnings specifically targeting persons with disabilities. This certainly opens a clear line of future action for emergency and security services (or similar agencies) in the region.

2.3 Protocolos y procedimientos

Standardized protocols or operating procedures are one of the key tools for delivering quality service. That statement also applies to emergencies involving people with disabilities. Consequently, the questionnaire circulated among emergency and security services (or similar agencies) in the region included a question on the use of specific protocols or procedures to handle and respond to emergencies involving persons with disabilities, whether to report an emergency or because they are being affected by an emergency situation/incident.

Among the institutions that took part in this hemispheric exercise, ECU 911 Integrated Security Service was the only emergency and security system to report having this type of protocol to guide the response to emergencies for people with disabilities.[5]

The protocol includes a disability classification, drawn from the national legal framework and public policy agenda. The Interagency Protocol for Handling Emergency Alerts Related to Persons with Disabilities has not yet gone public because it was still at the application phase when the questionnaire was sent out and this document was being prepared.

As in the preceding section (2.2.2), this issue also emerges as a possible line of future activity for the emergency and security services (or similar agencies) in the region to pursue. Certain basic guidelines were already provided on page 106 (Chapter V) of the Guide for the Establishment and Strengthening of National Emergency and Security Systems (Spanish version). However, there is still much to be done. Another recommendation is to use the World Health Organization´s (WHO) International Classification of Functioning, Disability and Health (ICF), its terms and definitions.[6]

5 The SIS ECU 911 protocol drafting process was structured based on three phases: Phase 1, to identify needs, establish key restrictions and define the main capabilities, and map stakeholders. Phase 2 focused on strategic planning, which involved securing commitment from the mapped stakeholders, adapting the technology tools, and developing the service protocol. During Phase 3, the technology tools were tested, personnel got trained on the protocol, the instrument was tested, an indicator-based quality control process was created, as well as a feedback process 106based on a quality control analysis to identify areas for improvement.

6 The ICF was formally approved by the 191 WHO member states via resolution 54.21, at the Fifty-Fourth World Health Assembly on May 22, 2001.

2.4 Personnel

2.4.1 Staffing and training[7]

2.4.1.1 Operations area

Three of the five systems or similar agencies participating in the consultation, replied that they had personnel, in the operations area, trained to deal with emergencies involving people with disabilities.

For Mexico's CNI,[8] these staff members make up 2% of the total,[9] whereas for the National 911 Emergency Systems of Honduras[10] and Panama,[11] about 1% of the staff is trained to deal with this type of emergency.

In addition, the questionnaire also asked about staff members with disabilities working in the operations area and trained to handle emergencies involving or affecting people with disabilities.

Two of the five participating institutions answered positively to this question. In the case of SIS ECU 911, 2% of the staff in the operations area have disabilities and are trained to handle emergencies in which a person with disability is making the service request.[12] Honduras' National 911 Emergency System reported, meanwhile, that 1% of its workforce were persons with disabilities, trained to deal with this specific type of emergency.[13]

Mexico's CNI and Honduras' National 911 Emergency System identified the specific types of disabilities for which operations area staff have been trained. Regarding the former, staff in the operations area have been trained to serve people with mobility, developmental (autism), and visual disabilities. With regards to the latter, the operations staff is trained to deal with hearing-impaired individuals.

7 Paraguay's 911 Emergency System announced at the Second Dialogue in 2021 for the Subsidiary Technical Working Group on Emergency and Security Systems, held on September 8, 2021, that it was in the process of developing a protocol for recruiting persons with disabilities, particularly police officers with some type of disability arising in the line of duty, to include them as staff in certain operations tasks. Designing the protocol draws on support from organizations specialized in serving and treating persons with disabilities.
8 At certain emergency call centers (ECC), hearing-impaired staff with demonstrated skills have been assigned to the video surveillance area.
9 The figure was calculated as a percentage of the total number of staff operating in the 9-1-1 Emergency Service.
10 The percentage for Honduras' SNE 911 was calculated relative to the operational staff.
11 For Panama's SNE 9-1-1, the percentage was calculated in relation to the total number of staff (operational and administrative).
12 The SIS ECU 911 percentage was calculated based on the staff working in the operations and administrative areas.
13 The percentage for Honduras' SNE 911 was calculated relative to the total number of staff members.

TABLE 2: Disability type

Institution	Disability type			
	Mobility	Development	Visual	Hearing
CNI	☑	☑	☑	
SNE 911				☑

2.4.1.2. Administrative area

Four of the five institutions that answered the questionnaire confirmed that their respective administrative areas did have staff with some form of disability.

Within the ECU 911 Integrated Security Service, 3% of the administrative staff are persons with disabilities. Panama's National Emergency System 9-1-1 reported having 2%, while Mexico's CNI and Honduras' SNE 911 indicated that 1% of their administrative staff has some form of disability.

2.4.2 Staff training

Of the five institutions that replied to the questionnaire on the subject, only Mexico's National Information Center said it provided targeted training for operations staff to be able to handle emergencies involving or affecting persons with disabilities. The training offered is based on the Handbook: ¨Some tips for call handling for persons with disabilities. 9-1-1 line.¨ *Teletón* Foundation provided support to prepare the Handbook. Based on this Handbook, as of September 8, 2021, some 3,500 operators around the country had been trained virtually.

Training staff on this topic and on this type of emergency arises as a possible line of future activity to be adopted by emergency and security systems (or similar agencies) in the region.

Mobility Icon: Created by b farias for the *Noun Project.*
Developmental Icon: Created by Gregor Cresnar for the *Noun Project.*
Visual icon: Created by Bluu for the *Noun Project.*

2.5 Physical accessibility

Physical accessibility means adaptation of physical spaces and premises to facilitate access, mobility, and use by persons with disabilities.

The questionnaire circulated among participating institutions included three types of physical spaces:

- Operations area
- Administrative area
- Common spaces (including cafeteria, lounge areas, restrooms/changing rooms, access to floors, parking, etc.)

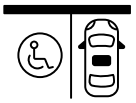
2.5.1 Common spaces

The five participating institutions responded that they had adapted common spaces to make them accessible and usable for persons with disabilities.

Table 3 illustrates the main adaptations done to common areas, as reported by the four emergency systems and the CNI of Mexico:

TABLE 3:
Type of adaptation done to common areas

Type of adaptation	Costa Rica SE 9-1-1	Ecuador SIS ECU 911	Honduras SNE 911	Mexico CNI	Panama SNE 9-1-1
Cafeteria	☑				
Restrooms	☑	☑			☑

Type of adaptation	Costa Rica SE 9-1-1	Ecuador SIS ECU 911	Honduras SNE 911	Mexico CNI	Panama SNE 9-1-1
 Parking		☑			☑
 Access ramps	☑	☑		☑	☑
 Mobility-friendly spaces			☑		☑

From Table 3, it is evident that one of the main public spaces' adaptations has to do with facilitating access to persons with disabilities, particularly by installing ramps. Four of the five institutions that took part in this exercise replied that they had made this type of modification. Panama is the system that has carried out the most adaptations to shared spaces.

2.5.2 Operations and administrative work areas

Regarding the two work areas, 4 of the 5 institutions responded that they made modifications in order to facilitate access, mobility, and usability for people with disabilities. Accordingly, Table 4 displays the main adaptations reported by the 4 responding institutions:

Bathrooms Icon: Created by S. Salinas for the *Noun Project.*
Parking Icon: Created by Azam Ishaq for the *Noun Project.*
Ramps Icon: Created by EliRatus for the *Noun Project.*
Mobility Icon: Created by David Khai for the *Noun Project.*

TABLE 4:
Type of adaptation performed in the operations and administrative areas

Type of adaptation	Ecuador SIS ECU 911	Honduras SNE 911	Mexico CNI	Panama SNE 9-1-1
Suitable workstations	☑	☑		
Restroom fixtures	☑		☑	☑
Elevator		☑		
Access ramps	☑	☑	☑	☑
Mobility-friendly spaces	☑			☑

Again, as in the previous section, Table 4 reveals that the main adaptation carried out in the operations and administrative workspaces has to do with installation of access ramps. In this case, SIS ECU 911 is the system that has done the most adaptations to its physical spaces in the operations and administrative areas.

Workstation icon: Created by Vectors Point for the *Noun Project*.
Bathroom fixtures icon: Created by Gan Khoon Lay for the *Noun Project*.
Elevator icon: Created by agus raharjo for the *Noun Project*.

III. FINAL SUGGESTIONS

In closing, as a result of the analysis provided throughout this document, a set of potential lines of action is suggested. By no means is this intended to be exhaustive, definitive, or exclusionary. On the contrary, this list of suggestions is rather an input for countries represented in the Subsidiary Technical Working Group on Emergency and Security Systems to define a working agenda on the topic of inclusion of persons with disabilities – both as staff members and as users. The definition of this working agenda may be carried out with the support of (international, regional, or domestic) specialized organizations, and setting realistic, prioritized, and achievable short-, medium-, and long-term courses of action.

Possible lines of future action that could be considered:

1. Identify and adopt a standardized (preferably international) classification of disability types with their respective prefixes and incorporate it into the handling of and response to requests, reports, and emergency calls.

2. Coordinate with each country's leading disability-related public policy institution or institutional mechanism, the incorporation of listings and geo-referenced registers of persons with disabilities into their computer-aided telecommunication and dispatch systems, including as integrated tools. This incorporation should take the necessary information security safeguards, established under each country´s or each institution's regulatory framework, to protect people´s identity and privacy.

3. Work with telecommunications regulators and telecommunications companies to enable the dissemination of early warnings, from a disability perspective.

4. With support from public and civil society organizations in each country – and taking into account any existing international standards – develop specific protocols and procedures for handling and responding to emergencies involving persons with disabilities, whether they are reporting an emergency or because they are being affected by an emergency situation/incident.

5. Identify staff training needs, specifically with regards to emergency assistance and response where the user is a person with disability. If necessary, establish formal agreements or arrangements with specialized organizations to develop course content and materials, and to ensure training is provided on a regular basis.

For further information about inclusion and accessibility for persons with disabilities in emergency assistance and response, visit the ESS-Community.

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