Pacific ADA Center
Emergency Management And Preparedness – Inclusion of People With Disabilities
Webinar Series
Emergency Planning for Institutional Facilities
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>> Lewis Kraus: Welcome to the Emergency Management and Preparedness - Inclusion of Persons with Disabilities webinar series. I'm Lewis Kraus from the Pacific ADA Center. This series of webinars is brought to you by the Pacific ADA Center as a collaborative effort between the ADA National Network and FEMA's Office of Disability Integration and Coordination.

The ADA National Network is made up of 10 regional centers federally funded to provide training, technical assistance, and other information as needed on the Americans with Disabilities Act. You can reach your regional ADA Center by dialing 1-800-949-4232. 1 FEMA's Office of Disability Integration and Coordination covers the same 10 regions with regional disability integration specialists. More information about FEMA can be found at www.fema.gov and then type ODIC into the FEMA website search.

This is the fourth year of this webinar series which shares issues and promising practices and emergency management inclusive of people with disabilities and others with access and functional needs. The webinars provide an opportunity for emergency managers, people with disabilities, and others with access and functional needs, first responders, planners, community organizations, and other community partners to exchange knowledge and information on promising practices in inclusive emergency preparedness and management for the whole community.

The series topics cover emergency preparedness and disaster response, recovery, and mitigation, as well as accessibility and reasonable accommodation issues under the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, the ADA, and other relevant laws. The series alternates between NAD National Network Learning Sessions and FEMA Promising Practices. Upcoming sessions are available at www.adapresentations.org/schedule.php.

The webinars occur on the second Thursday of the month at 2:30 eastern, 1:30 central, 12: 30 Mountain, and 11:30 Pacific time. By being here you are on the list to receive notices for future webinars in this series. The notices go out two to three weeks before the next

webinar and open that webinar to registration.

For those of you who are new to this series, webinar series, and its software, we'll now review some of the features of the webinar platform before we begin today's session.

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At the conclusion of today's presentation there will be an opportunity for everyone to ask questions. You can submit your questions using the chat area within the webinar platform. The speaker and I will address them at the end of the session. So feel free to submit them as they come to your mind during the presentation. You can do this by typing and submitting questions in the chat area text box or pressing control m and entering text in the chat area. If you are listening by phone and not logged into the webinar, you can ask questions by emailing them to adatech@adapacific.org.

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Today's session is titled Emergency Planning for Institutional Facilities. The International Building Code and International Fire Code have unique emergency criteria for assisted living facilities, nursing homes, hospitals, and jails. In these types of facilities there may be legitimate reasons where the typical fire emergency plan to spend everyone out using the stairways may not be the best choice considering both the abilities and safety of the residents. This presentation will discuss options for planning, training of staff, practice drills, notification, and evacuation. Criteria for additional protection to be provided by the building construction will also be reviewed.

Today's speaker is Kimberly Paarlberg. She is a Senior Staff Architect in Technical Services with the International Code Council, the ICC. Her experience with ICC includes work in the plan, review and code development departments with responsibilities for code development, plan reviews, providing code interpretations, instructing technical seminars, and authoring and reviewing instruction materials, code commentary, and publication articles. Kimberly serves as a Co-Development Secretary for the IBC Means of Egress/Accessibility and ICC Administration committees. She is the ICC representative for development of the referenced technical standard ICC/ANSI A117.1 "Accessible and useable buildings and facilities." Kimberly is staff in the ICC Ad hoc Health Care Committee. She is a licensed architect in Illinois and holds an accessibility inspector plans examiner certification.

Kim, I'm going to turn it over to you now.

>> Kimberly Paarlberg: Thank you very much, Lewis. Good morning, everybody, or afternoon depending where you are in the country. My name is Kimberly Paarlberg. I work for the International Code Council and what the International Code Council is is a non-for profit organization that holds public hearings to help develop the rules to follow for minimum public health and safety. And those rules are adopted by a state or a town as a reference document for how they are having their building inspectors review your building for compliance. So while we're not a Federal Rule like the ADA or the Fair Housing Act, we do spend a lot of time trying to make sure that we address the needs for people with disabilities and we coordinate with the Federal Rules as much as we can so that you can build in accordance with the building code and meet or exceed the requirements you'll find in the Federal Rules.

What we're going to talk about today is institutional facilities, which what Lewis just mentioned was like hospitals, assisted living, nursing homes, jails but it also can be viewed for some of the new outpatient clinics and special concerns and considerations that might need to be addressed for evacuations. So what we're going to cover today pretty much is the occupancy classification. So how do you know what types of building you're talking about? And in the building code that's called your occupancy. So nursing homes is an example of an occupancy. And they assign letters and numbers to those occupancy classifications based on several different levels [No Audio] care, concerns, etc., which I'll try to explain; the planning overview, which is how do you plan for emergencies, as far as fire evacuation or even lockdown plans, if you're talking about anything from an active shooter to perhaps a tornado coming in or hospitals have a lot of concerns about maybe children getting taken from the children's ward or from the waiting areas, in assistive living or nursing homes. We have different concerns look at for resident safety. Means of Egress is a term we use for how you plan for either evacuation or moving people to a safe location within the building. And then there's also some special building construction requirements that's how the buildings are physically built to help you follow through with these plans.

So those are the basic five areas that we're going to try and cover within the next hour. The goals that we're going to try to do is talk about the emergency criteria using the International Building Code, fire code, and existing building code. One of the new things that we've been working with in addition to trying to address the new way that institutional facilities are being designed, nursing homes is a really good example. They're going much more from what looks more like a hospital to what looks more like a home environment and is more and more of the outpatient surgeries pulled out to outpatient doctor offices, remote emergency centers, how do you make sure that awe dress the needs of everybody who within those types of facilities.

Hopefully by the time we're done with this, we'll understand why the assisted living facilities, nursing homes, hospitals, and jails may need to use, other than the standard evacuation systems. And this is permitted underneath the ADA when they talk about hospitals being able to use standard medical practices to address these kinds of things.

Identify what plans have to be developed and put in practice for these facilities, how you can be involved in developing those. Understand what alternatives there are for notification other than the standard audible alarms or visible alarms that you see in a regular building. And identify what parts of those buildings are trying to separate the building into different smoke compartments for protection from smoke and fumes. Because actually, most people in a fire event if they do die, die from smoke and fumes not from the actual fire event. So it's very, very important to protect people from the smoke and fumes as much as possible.

So the occupancy classifications are how you determine what type of building you're looking at so you can determine what options you have available. We'll include several different factors. We're looking at the level of care. Are you capable of self-preservation or are you confined to your bed because of an illness? Are you locked in because of level of security in a jail? The length of stay: Are you there for a short period of time like a doctor's office? Are you there for a – spending the night but maybe for a short time like in a hospital? Or are you living there like in a nursing home or assisted living facility?

All of those types of facilities it's important to note the capability of the care recipients for self-evacuation. If you can't have everybody -- you know, fire alarm goes off, let's all move to the stairway and start our way down, then how do you address the needs of those people and get them extra assistance that might be necessary? If you're talking about a hospital, especially in areas like the intensive care or critical care units, you might be talking several staff persons needed to transport even one person out because of the equipment that has to go with them. And then, of course, the number of the care recipients in a given area or within a building will affect how those buildings are viewed as well.

So just really quick, some basic definitions that are in the building code for how to help separate. The level of care is basically divided into -- you don't need care or supervision is -- need custodial care or you need medical care. Custodial care is when you need assistance for day-to-day living activities such as cooking, maybe taking a bath. But that person maybe capable of responding to an emergency situation but you might need a little bit of assistance with the walker.

Some of the plans we're going to talk about is if somebody can help somebody that might be moving a little bit slower and help another person into a wheelchair. And then somebody else can push them versus direct relationship for staff versus medical care, which is typically where you're talking more of a nursing home or a hospital where they will have surgical procedures, very specific nursing. It can be some psychiatric purposes, drug rehab, for example, where you're in medical care not an extended rehab facility but something where you're still maybe receiving medication or direct supervision because you're still in withdrawal.

The length of stay is very important as well. There's 24-hours basis and non-24-hour basis. So 24 hours is basically you're staying there for that amount of time. You wouldn't say something that was perhaps open for 24 hours like a remote emergency station but it is no place for people to stay there. You would come in and get your assistance and then you would go home or if you were seriously ill enough, they might take you to a hospital, even though it's open 24 hours, length of stay is what makes a difference in this how the buildings are reviewed.

They don't have a definition for capable or self-preservation but they do define incapable self-preservation. It can be because of age, physical limitations, mental limitations, chemical dependency, medical treatment or even being locked in as in a jail. You're not capable of evacuating yourself. So what things need to be in place to make sure that everybody who is incapable of self-preservation can be moved to a safe location or evacuated from the building depending on the scenario.

[CART NOTE: speaker's audio sounds crackly]

We also have when you have more of a type of facility that patients are in there and they might be having procedures but they are not necessarily staying there. So an ambulatory care facility, you're not staying for 24 hours so that's your length of stay, but maybe you're having an operation performed. So an ambulatory care facility is where people could be rendered incapable of self-preservation by the services. So you go in for oral surgery and they knock you out so they can take out your wisdom teeth or something along that line. Even if you're awake during the procedure, a doctor has to have time to back out of the procedure before a patient could just get up and walk out. So that's what they mean by being rendered incapable of self-preservation.

Versus an outpatient clinic, that's anyplace where you might go that you're not rendered incapable of self-preservation. So you walk in, you see your doctor. He gives you your medicine or runs your checkup and then you leave. So ambulatory care facilities is something that has a higher level of people that might need additional aid to evacuate, that's not a 24-hour stay.

When you move to more of a 24-hour stay, you actually have many other different types of facilities. You have a detoxification facility, talking about substance abuse; foster care, children under age 2 1/2 which is basically the level that we have right now for when children would know how to -- you know, be smart enough or be able to be trained appropriately to self-evacuate. So a foster care facility that takes care of infants and toddlers, for example, would need to have a higher level protection than some areas where you might have children that were in grade school or high school.

A group home is a facility for social rehab, substance abuse, or mental issues where people want to live in a housing arrangement. And part of our discussions in working with fair housing is to make sure that if you have custodial care, you're not required medical care like in a nursing home, you can still live in a home environment, similar to a family next door. because you don't want to define family by blood or marriage but how they operate together. So group homes are typically small groups of adults that liver in a home environment.

Versus when you go to hospitals and nursing homes, a hospital is a facility that is going to offer medical care but it's surgical, obstetric, psychiatric, and you have very, very many people in the facility that are incapable of self-preservation because of the level of care they're receiving. Think about ICU, CCU, delivering a baby, just had a hip or knee replacement, you know, all kinds of different reasons while you're in a hospital where you might not be able to self-evacuate.

Psychiatric facilities, if you commit yourself or are committed because of alcoholic or substance abuse, then you're probably locked in. So again, you're not capable of self-evacuation.

Nursing homes, again, medical care, both intermediate and nursing facilities but because conditions as Alzheimer's, dementia, mobility issues, you're not considered capable of self-preservation versus assisted living is, again, custodial care versus medical care. So

these types of facilities receive medical care.

So those are the defined terms. Let's go through the classifications given by the building code. It's important to understand these so that when you look at the specific criteria, you understand the terminology that's being used to try and group these type of buildings.

If we talk about a group I3 occupancy, you're talking about correctional facilities, detention facilities, jails, prisons, reformatories and these are subdivided based on the four things that we talked about before. You are in a supervised environment, you're living there, because of security or constraint you're locked in. And there's five levels or conditions that tell you how extreme the level of constraint is. It can be everywhere from a prerelease center to a high security center going up to conditions one, two, three, four, five with one being the most open and five being the most locked down or constrained. Because they're locked in, they are incapable of self-preservation. Once you perhaps open the cells, they can be directed but, of course, it has to be staff interaction to be able to work through everything. And this does start with greater than five detainees because we want to go for a true jail. We don't want to pick up a cell in the back of a local police station where they hold people temporarily until they can move them to a different facility.

Then you move from an I3 to an I2. The I2 facilities, we've got foster care facilities, detoxification facilities, again, where you're receiving medical care, hospitals and psychiatric hospitals, nursing homes. Again, receiving medical care. So the requirement for those are you're living in a supervised environment. You've got 24-hour care from nursing. And you're living there for 24-hour stay. So you have nursing and medical care, going back into those defined terms, more than five patients because, again, they don't want to apply a hospital criteria to somebody who might just have one patient that was perhaps living at home or in hospice care.

They have two conditions in I2's, one being the nursing home and foster care facilities where you don't have the surgery obstetrics, inpatient stabilization units versus condition two, hospitals where you would have the emergency care and surgeries connected with that. So it takes the I2 category where you're receiving medical care 24 hours and splits it between the nursing homes and hospitals.

Assisted living, again, alcohol and drug centers but not the same level as if you're receiving medical care. Assisted living facilities, congregate care facilities, group homes, halfway houses, residential board and care, which is typically assisted living facilities that need a little bit more supervision and care, and social rehab facilities. That's all what you would consider I1 and R4. The split between the I1 and R4 I'll explain in a second.

The I1 is a supervised environment, again with that 24-hour stay, but this time we're talking custodial care. An assisted living facility has greater than 16 residents. It's split between condition one and condition two, similar to what we saw between the split between nursing homes and hospitals, but this time it's based on the ability of the residents.

So condition 1 typically is everybody's capable of emergency situations. So it could be a large foster care facility. It could be something that's not quite apartments for senior living because they're living more in a supervised environment but it's still assisted living, versus if you start to offer care for beginning stages of Alzheimer's, dementia. That's typically when they have I1, condition two type of environment because you might need to have some physical connections from staff.

I'll use my own family as an example. I have a grandmother who has Alzheimer's. She's perfectly fine physically but if there's an emergency, she's going to get scared and she's

probably going to go hide. If somebody walks in to her room and says, you know, Mable, we got to leave now, then she'll get up and go with you.

So it doesn't necessarily mean that the staff has to transport residents in wheel chairs or in beds or anything. It means more that you need to have a little bit of verbal connection, perhaps helping somebody get up out of their bed and get their walker so that they can start to move themselves slowly towards evacuation.

Now, the reason we have the I1 and the R4 is it because previously the building code talked about an I1 being down to five residents, more than five residents. And what was happening is that because it was considered an institutional type facility when a group home would want to move into a residential neighborhood, we had a conflict with the zoning ordinances which said these neighborhoods are zoned for residential. Well, these group homes are institutional. So we basically developed a residential use group where people have supervised environment, they live there, they receive custodial care.

I'm sorry this slide should say greater than five and less than or equal to 16 residents, not six. I'm sorry for that typo. I apologize.

And then allows this to be in a residential neighborhood. It can use a sprinkler system that's consistent with the same type of sprinkler system that might be required for a single family home if they wanted to have it. It's split into condition one and condition two, similar to the assisted living, based on the abilities of the residents. So a group home for teenagers that are in foster care could be a condition one versus a condition two might be a group home where you had people that had, again, beginning stages of Alzheimer's, dementia, or for some reason they needed limited verbal or physical assistance to start their evacuation procedures.

Sometimes people take a look at some of the outpatient surgery facilities and outpatient clinics. We're seeing so much care that used to be only provided in hospitals and these type of facilities. We're starting to take a very careful look about how these should be considered. They're not necessarily full-blown hospitals, don't have that 24-hour stay, but you're having surgery performed in the doctor's office or you might be given some medication that you're knocked out during procedures.

So an ambulatory care facility is when you have that more -- you come in and you might be rendered incapable capable of preservation either by being knocked out or having a procedure performed on you where you're conscience but you have an arthroscopic scope in your knee or something so that you can't just get up and walk out.

Versus outpatient clinic would be a regular dentist office, doctor's office. They can have labs, testing, and research but it's not a full-blown hospital. Those are considered group B, which is classified as business.

And the criteria for those are, you're not staying 24 hours but you are receiving medical care. The outpatient clinic, everybody's capable of self-preservation versus an ambulatory care facility, you could have people that were rendered incapable of self-preservation.

If you have more than four patients incapable, then you could have additional requirements for the building as far as providing smoke barriers to protect people in place so that the doctor had the opportunity to maybe bring patients in, bring them to a wheelchair, help get out, back out on surgery. If you have a couple of doctors in there. Or I took my daughter to have her wisdom teeth out. We had a couple of people recovering, the person operating on, and the person who was being prepped to go in. So he had more than four patients incapable

of self-preservation even though it was only one orthopedic surgeon in the office. So those are the kinds of facilities we're trying to look at.

Now, one of the groups that we're having help us put all of this criteria together is we have something called the Ad hoc Health Care Committee. It's a group working on the criteria for hospitals, nursing homes, ambulatory care facilities. We're hoping that their work will also be expanded to take on assisted living facilities this next go-around cycle with the code changes. And they are looking at the k-tags which are used for hospital licensure as kind of a checklist after the hospital is opened to make sure that everything is in place. This is also nursing homes as well, to make sure that the new style and approach for architecture in the development of the new style of nursing homes, hospital procedures, and everything are current in the codes.

If you're interested in listening to that group with any of their telephone conferences or meetings, there is a link there on the website that you can go to our website and see what kind of things that they are look at. It's all public meetings, all public teleconferences. Right now we're meeting every two weeks. Over the phone. So my number and contact number is in that website there as well. So if you're interested in listening or participating, that's a good way to get some additional information.

So that's how the building code sets up for what the criteria is. The next step we're going to look at is once you've identified what type of use groups you are, what type of companies you are, and what's the proper planning that has to take place. Because everything should be planned, practiced, reviewed. So everybody learns it. Everybody's safe.

If you want preplanning for emergencies, it's required by both the building code and the fire code that when you have a hospital, nursing home, a group homes, assisted living facility, most have to have fire evacuation plans, fire safety plans, a lockdown plan for other types of emergencies like an active shooter, tornado, police action outside the building. There can be lots of different reasons for lockdown plans. What kind of associated drills you have to have, so not only staff knows all of this, but everybody who lives there knows these criteria. It has to be worked out with the building owner or renter and fire department. And it should be updated annually or when necessitated by change.

Some of the hospitals and assisted living they ask for the staff to even review when you bring in a new patient or a new resident. It has to be available for review. It's public record. And if you are living or working in those facilities, you can ask to be involved in the meetings and development of the plan so that any special needs you feel you might have or concerned, can be addressed.

Now, the difference between a fire evacuation plan and a fire safety plan. A fire evacuation plan has to include any route people have to follow to get out of the building. They want you to tell what their strategy is initially. Do you have a plan for evacuation in case of a fire or are you operating like a typical hospital or nursing home where you don't want to take somebody who is sick out in the middle of winter in a snowstorm or a rain storm? You want to defend in place which means you move people from either contained the smoke in an area away from where that patient or resident is or you move the patient if they're in the area near the fire, to a separate area that is protected from smoke.

You want to make sure that you identify any critical equipment operation. In the hospital you typically have emergency generators. What assisted rescue procedures are available? And hospital, nursing homes, all staff has to be trained in the assisted rescue procedures to move not only all patients but any visitors or anybody within their space or out of

their space.

They want to make sure that there's ways to verify full evacuation or monitoring of whoever needs to be moved or relocated. Who are your emergency responders? Sometimes hospital facilities are large enough that they will have their own firefighting team. Definitely all staff is included in the emergency responders there versus if you're talking about a group home it's know who your fire department is, paramedics, police.

How are you going to notify the occupants of an emergency and what that emergency is? The notification of the fire department so they know what's going on. And if you're going to do that with any type of voice and alarm communication system, that has to be on that plan.

The fire safety plan is more the procedural type aspects. How are you going to report that emergency? Who is going to report that emergency? Do you evacuate or relocate your occupants? Again, it's that full evacuation to defend in place.

They want a site plan so that when they come in there, the fire department knows where the fire hydrants are. The fire truck routes if people are evacuating, where are you having your occupants residents assemble so you can take account -- maybe most common probably everybody participated in evacuation when they did grade school or high school. Everybody knew the route that they had to follow. And then there was a place where you all gathered so your teacher could do a head count compared against who was there that day to make sure she could do that. Sometimes you'll see the room numbers marked on the side of the parking lot. You might see a sign that says occupant assembly point. That's all part of the things that you want to make sure are there.

If you have floor plans, where are your exits? How are you expected to get there? If you're a non-sprinkler building, you're going to have areas of refuge. Sometimes the terminology gets mixed up but if you're doing a defend in place, you have refuge areas. An area of refuge is typically a very small, protected space within a stairway. A refuge area can be up to half of the building where it's subdivided into two separate smoke compartments. And you want to make sure the open space on one side or the other is available for some -- all of the people on one side to be moved over into the refuge area on the other side of the smoke barrier.

What kind of fire alarms do you have? Where are your extinguishers? Who is going to operate them? Are there fire hose? How are they going to be operated? Is there any major fire hazards? Hospitals store oxygen tanks. They do have labs that have blood work and chemicals, pharmacies have flammable issues. So where are your fire hazards within your building? And who is responsible from staff to notify the fire department, say the all clear and how all of that is supposed to work is included in the fire safety plans?

So those are both mainly addressing fire. You also have things where you look at in a lockdown plan. In a lockdown plan, you want occupancy notification. How are you going to let everybody in there know what's going on? Who is going to tell the police, fire, paramedics, whoever is connected with that lockdown plan? Who is in charge? How do you say the lockdown is over? How is that information communicated? And staff training.

Again, the best example probably most people are familiar with is more like a school. Our local high school has a lockdown plan where they have a green, yellow and red. Green is there's a police emergency somewhere in the community. They don't want somebody to go into a school and take hostages. So the school basically locks down from the outside and classes operate normally. Green plan, the teachers are told that there's a higher safety level

going on and the head office so that students that might be coming in or leaving have to go through a special procedure or might not be able to go right at that precise point in time. A yellow basically is there's a police operating someplace in the immediate area of the school so they lock down the school and they ask the kids all to return to their home rooms and the teachers will lock them in. Red is there's a situation in the building. Everybody goes in the classroom that's immediately next to them. The teacher becomes personnel and locks everybody in.

Communicate with the police and fire department. They have a plan in place. They have ways to communicate with all the teachers so they know where the issue is in this school so if some of the kids can be evacuated they have -- there's so many different ways you can look at lockdown plans. Almost all schools have them for sure. Courthouses will have lockdown plans. When you're talking about institutional facilities, a lot of times in hospitals they have concerns for somebody trying to take an infant, parents dispute or somebody trying to take a child out of a children's ward. Other lockdowns or security plans might be not only patients that might not be quite mentally there or on medication so you're worried about wandering. And then also you could have a psychiatric hospital where you've got people locked in because of alcohol or substance abuse. So there's lots of different planned scenarios that you have to work through. Staff has to be trained. You have to have a plan in place for all of those different types of emergencies.

Once you have those emergencies in place, you have to have practices set up. And these are required -- you have to have employee training, resident training, and what kind of drills you're going to have to have. And this is required for a huge variety of buildings. Because we're talking specifically for institutional facilities today, basically when you're talking about a jail, hospitals, nursing homes, group homes, and ambulatory care facilities, you do have these additional requirements.

For jails you have to have employee training on the use of any sprinklers or fire hoses, cells have to be unlocked. They have to have a guard within a certain number of stories and feet from every jail cell or remote unlocking. Depending on the condition of high security the jail, that is what conditions three, four and five is. Employees have to start emergency evacuation or relocating in place within two minutes of an alarm. You have to have a way for residents to notify employees in case of emergencies. Employees have to practice evacuation drills quarterly on every shift. So four times a year on every shift you have to have -- staff has to run through a practice drill.

In I2, the fire evacuation plan has specific criteria for describing staff actions, how you're going to evacuate. So this is hospitals and nursing homes. Evacuate visitors and patients. You want to make sure that your plan includes anything that you might need containment or restraint, post evacuation containment, for example. So you don't want to take some dementia patients outside and then just have them kind of wander off because you're not doing supervision. You want to make sure that that maintenance plan, a written plan in place, to make sure that there's nothing in the hallways like crash carts or soiled linen carts or food carts. Make sure that you can get everybody out.

How do you do your defend in place strategy? Where are your smoke compartment walls and knowing where the systems are in place? And are you going to do a full building evacuation when necessary?

Most of the time hospitals don't get evacuated fully. The only time the ad hoc health group was talking about a full hospital evacuation was when they had a hurricane coming in.

Once down in Louisiana, and the last one was in New York.

Fire safety plan has to be available at all times in the facility. It has to have the number of patients, where their sleeping rooms are, where your operating rooms are, where are the smoke compartments, what's the capacity of your refuge areas, how do you get to one smoke compartment from another to get to an evacuation stairway if you need to or to a door to the outside. Do you have any type of special locks to contain patients for any reason? How can those be overridden by the supervised person knelt or by emergency personnel? If you have elevators that can be used for patient movement what kind of standby power do they have? What smoke compartments are they in? Do you have the evacuation drills? Again, similar to the jail, quarterly on every shift. You want to make sure that you have safe areas on that the exterior of the building if necessary.

They do have an allowance if you conduct evacuation drills after visitor's hours you don't necessarily have to do the alarms and that type of stuff. You can do silent alarms, coded announcements. I've seen nurses where they receive notification on equipment that they carry with them all the time, just so that you don't disrupt or get people scared thinking it's a true drill.

Assisted living, again, copy for the fire and safety evacuation plans available. The facility has to include employee action, fire protection procedures for the residents, how are you going to defend in place versus [Indiscernible] evacuation. And if you have any resident come in with unusual needs, those need to be updated.

Again, assisted living, condition 2, where you have the people that are not quite capable of self-evacuation in a speedy manner, how do you move people out from the -- from where the fire is into a separate smoke compartment and then eventually to an exterior assembly point. So basically a stage type of evacuation. Your fire safety plan has to include the number of residents, sleeping rooms, special locking arrangements, so the fire department is totally aware of any constraints they might be dealing with.

You want to make sure you get those employees trained. Part of your new employee orientation right away: What's your duties and responsibilities? You want to make sure that those -- that the record is to make sure everybody has those. They have to be reviewed by staff not less than every two months.

And then I1, because you're -- they talk about resident training as well as staff training. Which can include everything from what do you do if your main escape route is blocked, you can help somebody else that might need a little bit of assistance, can do staged evacuation, is it full building evacuation, where are your collection points.

And if you have a rehab training facility, they also want you to talk to people about how they translate that back into your house. Anybody that's got kids in school, you've had to do your fire safety evacuation plans at home as parts of fire safety week. So you understand what that means.

You want to make sure that everybody practices those drills. Again, semiannually instead of quarterly. But staff on every shift. You want to make sure that the employees do additional two times. Make sure you have practice drills 12 times a year, the same way with the school. You want to make sure that time drills are planned. Fire officials can say you don't have to go outside in bad weather, though. Ambulatory care, again, are you in defend in place, staged evacuation.

Trying to move through quickly to get done on time. Sorry, guys. A lot of information on here.

Again, special requirements for fire safety plans, drills, ambulatory facilities, staff

training, making sure everybody can get out. You can see how important and extensive these planning information is for planning, staff training, employees training, emergency evacuation drills.

Now, how does everybody know about this stuff? Everybody has to have evacuation plans in all elevators. If there is non-accessible entrances, where are the accessible entrances? You want visual exit signs at the stairway as well as that information repeated in tactile and Braille. For signage once you get inside that stairway, there's a big sign on the wall up high that's over the heads of people rung down the stairs, in high contrast, you know, light on dark so that people that don't have vision impairments know what floor they're on and what stairs they're in. That has to be repeated with a tactile signage indicating the floor level at the door on every level. And then when you get down to the bottom, again, tactile signs telling people which door to leave versus because on the first times a lot you have a door back into the building.

All buildings that have to have elevators, starting in a 2012 International Building Code are required to have two-way communication systems in non-sprinkler buildings, at areas of refuge. That has been in there forever but in the sprinkler building in 2009, 2012, and 2015, they added even if it's a sprinkler building, at the elevator, have a phone to be able to call to say I can't use the stairway, I need some assistance, I'm on such and such floor.

There's a variety of options available on those. They don't have extremely specific criteria because it can greatly depend on the type of building and the number of people that need to be evacuated, with the key being to be able to communicate with emergency responders.

Unfortunately, hospitals a lot of times people are picking up that phone and thinking it was an information hotline. Because they have extensive staff training and the idea of defend in place, starting with the 2018 code of hospital or nursing homes does not have to have that two-way communication system in the elevator lobby because the staff is going to take over and accommodate everybody in their evacuation plans. So it was considered an alternative way that provided a higher level of accessibility.

In accordance with NFPA 72, all buildings that are over a certain size have to have audible and visible alarms. You want to make sure you have manual pull boxes where appropriate. There is some allowance in hospitals for the manual fire alarm boxes to be at the nursing stations so that the staff pulls the alarm. You don't have to rely on somebody running for the stairway to be able to provide that notification.

You have to have visible alarms in all public spaces and all common spaces. The building code does not allow public shared common spaces for employees to not have visible alarms. We [Indiscernible] that would exceed the requirements in the Federal Rules.

If you're in an assisted living facility, you can have some residents rooms -- if the person has hearing impairments, they want the building evacuation alarms in their unit, there's requirements to be set up for that. If you're more in a hospital because you don't want doctors to be startled during an operation or you could have patients that you want to not have them be afraid because they can't get up or move on their own, you can use something called private mode signaling in certain areas of the hospital where it's staff controlled.

And, again, just a reminder, if the sprinkler system is activated, it's not like the movies you see with Arnold Schwarzenegger where every sprinkler is going off in the whole building. Most fires are put out with the activation of one, two or three sprinkler heads. But that activation of that system automatically notifies the fire department. And when the fire

department shows up, they know where the sprinkler panel is so they can identify immediately where that sprinkler head has gone off so they can move immediately to the fire.

And when you are in building five stories or taller, your elevator not only has to have regular power but standby power generate or to allow the fire department to move to those upper floors quickly, both to fight the fire and to offer assisted evacuation when that's the plan for the building. The fire department might also work with a defend in place scenario.

So the Means of Egress or how you get out of the building is an unobstructed path that consists of exit access, exit, and exit discharge. Accessible Means of Egress is an accessible route.

Like I mentioned, we are referenced for the 2000 and 2003, with the 2010 ADA standard. While we do issue every three years, the 2010 ADA standard was frozen in 2004. That's why they don't reference layer additions but we are permitted to use those under ADA's allowance for equivalent facilitation because if you watch some of the other training programs on Means of Egress, pretty much the information we're getting is that they feel our criteria meets or exceeds what was permitted in the 2000 and 2003. So you can use later edition standard. You don't have to go back.

You want to make sure that everybody always has access to two ways out if you have more than 50 people or more than 75-foot travel distance. It's not only the building but it could be by room. So a quick example of maybe a banquet hall type facility where each room has more than 50 people. So actually while you only have to have entrances at 60%, you might have additional doors be required for accessible Means of Egress because you don't want to ever get a situation where somebody gets trapped. You always have to have at least two ways out.

Sometimes you can do assisted rescue when necessary. For example, it's very common with a defend in place. Staff moves patients in their beds or wheelchairs from one area to another. If you do evacuate down the stairway, that would be with fire department assisted rescue. There's a new standard that's been put out by an [Indiscernible] for the evacuation chairs. But those would have to be to be part of your fire and safety evacuation planning and staff training to make sure that those were used safely and properly.

Again, five stories or taller you're going to have that stand by power on the elevator. So the fire department has more ways to offer assisted evacuation.

There's also criteria for I2s that say that you can't have steps outside because they want to make sure they can roll out patients when you do that defend in place strategy.

Institute in hospitals, jails, and nursing homes. You're dividing the building into separate smoke compartments so that you can move people away from the smoke and fumes. That's why you'll see those doors on hold opens across corridors. It will automatically close upon activation of any type of fire alarm or smoke detection to get people out of the building. Those refuge areas have a certain size to make sure that they can accommodate everybody, either patients in beds, walking, in wheelchairs, whatever.

A quick example showing how you can subdivide a building into different areas so people can look for -- move from one smoke compartment to another with eventually being able to get to a stairway if full building evacuation. When they talk about independent egress, they want to offer smoke compartments. They want to make sure that you can always, always get to an exit no matter what.

Real quick, very last thing here, special building construction. In hospitals you have allowances for suites in critical care, intensive care units and emergency departments. that

allow for a direct communication, staffed with patient rooms. You want to make sure you have 96-inch wide corridors if you're going to move patients and beds. There's limitations for equipment and corridors to make sure there's always available routes to be able to do that. Added new into the latest editions are allowances for the nursing homes to operate, and assisted living, to operate more as a home environment. Here's a couple of pictures with examples.

I1s, make sure your dwelling units are separated from each other. Because this is operating closer to an apartment. Again, these I2s -- I1, condition 2, is subdivided to smoke compartments as well when people need a little bit of help. There's also special locking arrangements where you might have delayed egress to get out or something controlled by staff. Again, it's trying to balance with proper care for their patients.

You go into that ambulatory care facility, you've got, again, protection for smoke where you've got more than four people that need procedure to evacuate or get out where people are not capable of self-preservation. If you have those kinds of facilities, we do ask for sprinkler systems to be added. There's also already sprinklers required in other institutional facilities.

So I hope I have covered anything and everything you always wanted to know about institutional facilities. I'm sorry I went so close to the edge.

Do we have any questions?

>> Lewis Kraus: That was tremendous, Kim. Thank you so much. That was really kind of a fire hose of information for us.

So I just want to let everybody know that we do have half an hour here. So there's plenty of time so any of the things that Kim really ran through there at the end in order to get done, if you want to go over it a little bit more, we have the time to do that.

Please do remember to submit your questions in the chat window. That's how we're going to do this and I'm going to read them out for Kim to be able to respond to.

Let me start off with a couple that we have already. First of all, there was a request to make sure that the slide is corrected that had the incorrect number. I will just say that definitely we will have that corrected and that will be there in the archives.

The next question is one about what are the new criteria for evacuation shares. Do you have anything on that, Kim? Otherwise I have something to say.

>> Kimberly Paarlberg: Well, I'll just say what I know real quick and then you can add, Lewis.

Basically previous evacuations didn't have a safety standard. So you could get anything and everything when you ordered them on line. So we were very nervous about people feeling that this was going to be that solution. But I'll use the Access Board. It's a really good example. They are, I believe, the 10th floor in a building in downtown Washington, D.C. And about half the staff uses wheelchairs. So they have evacuation chairs in their conference room because you can't self-transfer to evacuation chair or operate it yourself.

You need to have people who are trained on how to help you operate them to help you self -- to help you evacuate. So we really don't think a buddy system is enough. Really, the Access Board does it right because everybody moves to the conference room, everybody on staff has been trained how to use the chairs. They assist people to transfer. And then you can move to the stairway and move down if you have to.

Because they're on the 10th floor, new construction -- I'm not sure if they've got it but in new construction that elevator would have to have standby power to make sure the elevator was available as long as possible for the fire department while using your chair. Because

another problem with the evacuation chair is when you get down, you can't roll around with it like a regular wheelchair. So you don't have any mobility device. So they're really like the last -- should be like the last-shot effort.

We usually recommend to people that they give them to the fire department instead of having them in the building so they're always maintained and have trained staff on how to operate them. But, please, please do not put them in the exit stair because you don't have the space to help somebody transfer. And then if you leave the chair in the stairway as you move down, you're blocking everybody else who is trying to move down through the stairway and evacuate the building appropriately. So maybe good as a last-ditch effort but it should be very, very carefully considered on how they should be used.

You had some more information, Lewis?

>> Lewis Kraus: Only to say to everyone that, of course, one of the previous webinars until the archive that you can look up if you want is one that Kim shared with Glenn Hedman, who was -- I'm not sure what his role -- he was like -- I don't know, President of the [Indiscernible] standard or something like that. And he and I have been in communication. They are working on the new standards for evacuation chairs. He said they're not quite ready because I asked if he could do a presentation. So as soon as those are ready we will have a webinar about what those new standards would be.

>> Kimberly Paarlberg: And technology is continually changing. So hopefully someday we'll have something that's more effective.

>> Lewis Kraus: Ok. Next question. How do we approach a planning preparedness situation where we know our building is non-ADA compliant?

>> Kimberly Paarlberg: Planning for emergency evacuation?

>> Lewis Kraus: Planning and preparedness situations so -- let's talk about it in terms of our topic here, which is evacuation, and see how we reply to that.

>> Kimberly Paarlberg: Well, I wouldn't go to the ADA. I would go to the fire code. The fire code has a requirement for fire and safety evacuation plans in group homes, assisted living, nursing homes, required to be evaluated every year, or based on, you know, a new patient coming in that has special needs, new ambulatory care facility coming in.

You can talk to the fire department. We don't have a plan, we need a plan in place. You can point out to the building owner or renter that they're required to have a fire and safety evacuation plan. It's literally depending on if it's a state-adopted building code or a law. So those are the people you talk to right away. It's not really something you have to go to ADA or say they're discriminating against me. It's a public health and safety issue.

What threw me off was the ADA part of it.

>> Lewis Kraus: Right. Ok.

>> Kimberly Paarlberg: It's a need for people with disabilities but it's not specific ADA. It's a general public health and safety.

>> Lewis Kraus: Ok. Next question. Can you please review the travel issue of 50 feet or 50 people and two Means of Egress?

>> Kimberly Paarlberg: The general requirement for the building code is if you have more than 50 people or more than 75-foot of travel along your aisles or corridors that you might have to escape to get out. You can't rely on a single way out.

You know, your office, because you only have a couple of people there and you can get out of your office within 75 feet, you have one door in and one door out. But if you have a group of offices where you have more than 75 feet of travel or more than 50 people that are in

that area, now you can't just have one way out.

The statistics and rules that have been worked out with the different fire plans and practices and review of different things that have happened, you're supposed to have at least two ways available for you within a certain travel distance. So the way you came out in for a little ways but then you have to have access to two ways.

So say your office opens into a main corridor or a hotel. You go out, your room can have a single exit but once you get into the corridor, you have to two have two ways to go, two different stairs. So if for some reason one stairway is blocked, you can go to the other one. And then there's travel distances to those stairways as well. So I have to get out of my room within 75 feet. I have to be able to get to a stairway within 200, 250 feet, depending if building sprinklers or not and what kind of use you've got. But there's limits on how far you have to be able to travel to be in a protected environment either to move into a different smoke compartment or to get into a stair tower and be able to move down through the building.

>> Lewis Kraus: Ok. Great. Next question is, Can you please review the NFPA 72 exit signs in addition to tactile signs as a requirement for the ADA?

>> Kimberly Paarlberg: Ok. When you have exit signs -- just trying to flip to the right place so I make sure I cover the right thing.

Exit signs have to be something up in the air so that people can see them over the heads of anybody walking down the corridors. Or in the case of like a movie theater, you have an exit sign behind from you where you came in and an exit sign down by the movie screen typically for the door to get out. So you have to be able to see those lit up, all the time. And they have what they call a vision distance, you know, how big are the letters, so how far away can you see that and identify the exit sign. And those are typically at the ends of corridors, at the stairway, showing you where the stairways are.

That same information has to be repeated and a tactile sign on the outside of the stairway telling you that that's the exit stair you can use to use the building. And that has to be in raised letters and Braille at that door.

Once you're inside, you have big signs on the walls, again, over everybody's head that when you walk in and the stairs are supposed to be immediately in front of you so you can see it. So it's not necessarily on the door behind you, so you know that if you enter the building stairway on the 10th floor, you know you have to keep going down versus somebody who is maybe in that stair tower's vision impaired, as they go down they get that same information on the doorframe. You want a consistent place for where that has to be so they always know where to look for it.

And visually impaired are taught to look by the door. You find a tactile information there for what floor you're on. And when you get down to the ground, there's signage telling you which of those two doors, one going back in the building and one to the outside so you know which door to leave from the building. And if the stairs continue down to the basement, there's also a barrier that's required so people don't continue passed where they're supposed to leave on the stairway, which, again, kind of make sure that any exit information available for a person who has better than 2200 vision is also available for somebody who has less than 2200 vision.

>> Lewis Kraus: Excellent. Ok.

The next one is a question about can you review the plans showing exit must also show the fire extinguisher cabinet.

>> Kimberly Paarlberg: Firing safety evacuation plans, if your building is required to have fire

cabinets, it should be on the plans so the fire department knows where they are. I'll use the hospitals for an example. I worked as a staff architect for a hospital in Chicago for a couple of years. We had to have certain size fire extinguishers within certain distance of patient rooms as well as any specific fire hazards like in our lab, in our pharmacy, near the oxygen tanks, and certain staff had to be trained on how to use those because fire extinguishers we had were large enough that it required somebody with decent physical strength to be able to lift those and be able to operate them. Because you had to have two hands. You had to be able to go in on the fire. So we received training on that type of stuff. But when the fire department came in for their reviews, to help us with our practice drills, they'd walk around and make sure that all the fire extinguishers were charged. So they would have their plans of the building out with those marked on there so they would know exactly where to go so they make sure they find all of them.

>> Lewis Kraus: Ok. I'm going to try and answer one to give you a chance to catch your breath. The question is a simple one. Can we print the slide presentation? And the answer is of course, all the slides will be there in the archive section. And you can use them. They are there for you to be able to use.

I also think, Kim, there's probably another place for people to really get all of this information besides these slides. Do you want to share the document or the website that they can go to for that?

>> Kimberly Paarlberg: For the Ad hoc Health Care Committee that was more information on our website in regard to the work of that particular group to try to make additional improvements. Because we're always looking to improve our criteria.

>> Lewis Kraus: That's ICCSafe.com website. Is that right?

>> Kimberly Paarlberg: ICCSafe.org is our general website. And then there is lots of public information on there about the documents themselves, training opportunities that we offer. But, again, if anybody is specifically interested in institutional facilities, I did put the website on there for what the Ad hoc Health Care Committee is doing to improve the criteria for hospitals and nursing homes.

The technology on these buildings is advancing so quickly. We do want to make the environment much more homelike for people. Especially in nursing homes. You don't want long sterile corridors with nothing open in the corridor anymore. You want to be able to have living rooms and art activities. Maybe not full-blown cooking but if my family comes to visit me, can we make cookies together? Or some of them are moving more to a home environment where they will have a main kitchen but they will have like small dining tables for maybe 15, 20 residents. So the food is brought in. They have warming ovens there. But you're served much more in a nice little cafe type environment rather than high school cafeteria.

>> Lewis Kraus: Right. Ok.

I put up on the screen the slide that has the address to the Ad Hoc Committee. So you have some time there while we answer some other questions.

>> Kimberly Paarlberg: And they are public teleconferences. We have two public hearings that we televise live every year about the code changes are. But this particular group meets every two weeks. It's all via teleconference though we will have one face-to-face meeting in Chicago. But anybody can participate on the calls. We are always interested in people who have maybe new ideas, some suggestions on some areas that need improvement. ICC is always available to answer questions for people. We try and do for the building code which you guys do such a great job for with the ADA.

>> Lewis Kraus: All right. Next question. Can you address the use of elevators in evacuations?
>> Kimberly Paarlberg: Most of the time in a hospital or a nursing home because you're moving patients from one small compartment into another, you're not using the elevators to evacuate. But in other types of buildings where you're five stories or taller, because when a fire starts smoke gets in front of the elevator lobby, there's a safety feature in the elevator that causes it to go down to the ground floor, open up and stay. Because if somebody gets into the elevator and they don't know where the fire is, they could actually physically deliver themselves to the fire. So once the fire department gets there, they take control of the elevator and they use the elevators for assisted evacuations.

When you get more than 120 feet, now they have something called a fire service elevator, which is basically an elevator where since you have a fire command center in a building that tall, they have the ability to monitor the shaft and that of decisional protection of the shaft in electronics. So again to make the building elevator run longer so they have more time to take people out. Because it's much better to be able to evacuate using your mobility device with the fire department who knows exactly where the fire concerns are and can get you out safely rather than you don't want foam try and get in the elevator. The elevator is not smart so it might stop at every floor or take you the fire floor. You want to get in and have the fire department take you down to the ground floor and take you outside. So it's fire department assisted rescue using the elevator system.

In super high-rises there is brand new technology for something called occupant evacuation elevator system where everybody in the building will evacuate using the elevator. But those are super high-tech elevators hooked up with the fire alarm system. They affectively operate the same way they would if the fire department was already there to do assisted evacuation. So they will respond to the fire floor first and evacuate that floor.

But right now I don't think there's anything in the United States that's using it just yet. Even though it's an option in the building code. I've heard some buildings in Japan and some buildings in Dubai. Some of the elevator guys might know if future buildings are planned to be able to use the system. Like I said, super high-tech. Typically you're going to see it in buildings maybe 40, 50 stories or taller.
>> Lewis Kraus: And I will also say, again, that topic was covered in a little bit more detail. Kim just made a great summary of it but it was in a little bit more detail on one of our previous webinars that you can find in the archive called evacuation of high-rise buildings. So go ahead and look for that.

The next question, Is there a preference for evacuation chair or sled if a building is say less than three stories?
>> Kimberly Paarlberg: I personally haven't seen a sled that works because stairs are typically switch back. And the sleds I've seen only take you done from one landing to the next. So if you've got a mobility issue, how do you turn around and go down the next?

Maybe that person has a different understanding of that terminology. There's multiple types of evac chairs. Maybe there's a type of evac chair called a sled. But an evac chair is kind of like one that meets the standard at least. You squeeze the handle and the chair will go down. If you let go of the handle, it will stop. Even on the incline. So it can't get away from you and take off.

A sled to me sounds like shoot for the bottom of the hill and hope you don't hit a tree. [Laughter] You want a very controlled egress, especially if you're going down with other people

around you.
>> Lewis Kraus: Right. And we have had another webinar on evacuation chairs. Like I said before, we are going to have another one as soon as the new standards are up. So hang on to that question and watch for your e-mails announcements about our next webinars. Because that will be coming as soon as they can come up with their final decisions on that.

All right. That is great. We realize that many of you may still have questions for Kimberly. I apologize if you didn't get a chance to ask it. But you can also contact her or you may also contact your regional ADA Center at 1-800-949-4232. And they can answer as best they can or put you in contact.

I did want to remind you that you will receive an email with a link to an online session evaluation. Please complete that evaluation for today's program as we really value your input and want to demonstrate the impact of these webinars to our funder.

We want to thank Kimberly today for sharing her time and knowledge with us. It was an extraordinary webinar.

A reminder for all of you, today's session was recorded and will be available for viewing next week at www.adapresentations.org/archives.php. So watch your email for the announcement of our next webinar this summer.

With that, I am going to say thanks again, Kim, and bid you all a very good day. Have a good rest of your day, everyone.
>> Kimberly Paarlberg: Thank you very much for allowing me to work with you today, Lewis. I appreciate it.
>> Lewis Kraus: Our pleasure. Always great to have you, Kim.

Goodbye, everybody.