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ITU
WHO Make Listening Safe Initiative Meeting
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[Standing by for real-time captioning]

>> SHELLY CHADHA: Welcome back, everybody. We are just waiting a couple of minutes for Simao to be back and then we will start. I can't resist this, so let's start. Welcome back, everybody. I hope that everybody had a nice lunch, and you found something to eat either in the cafeteria or in the food truck. I don't know if anybody was adventurous enough to venture outside in the heat. You did?

Very good.

So welcome back, also, to remote participants.

Can we see either by show of hands or by you putting on your cameras to see how many people are still there. So I see -- yes. I see quite a few hands.

That is great. I see Patrick Sidel who was not there earlier that can introduce themselves late every. Thank you for joining back and we hope more people will be back online and more people will come in the room as well. So we have spent the

morning, this morning looking at -- looking at the past
10 years.

Now we want to look into the future. That is where we need
to go.

Let's look ahead.

Today, this is us today.

Now, we take a journey into the future. We will go to
2035. 2035, hopefully we will be here still but just aged
10 years and maybe in a more futuristic landscape. Who knows.
To define what our vision of 2035.

What will we be discussing when we meet in 2035?

That is a question we posed to some colleagues and those
that have been with the initiative for a long time and asked
them what you want to celebrate in 2035 and what is it you dream
we will be discussing when we get here.

I will invite now Mark. Mark of 2035. To take the floor
and tell us what his vision is for -- as you prefer. As you
prefer. You can come here or you can -- as you like. Yes.
Absolutely.

>> Next to your ownself.

>> Mark, tell us where are we in the future?

>> MARK LAUREYNS: Thank you for the opportunity. I made
two visuals and hope you can see them otherwise I will be
completely -- can I go to the next slide?

My dream is in 2035 we will no longer have the discussion:
Is it now 80dBA/40 hours/week or something else and is essential
and hope we can convince standard institutes and convince
dangerous decibels to convince in their program, by the way and
people using same numbers. Make it easy, everybody. Don't
confuse people and think we should be there by 2035 and thought
we should have been there today. Yes. We will have patience
until I grow a longer beard.

Next, if you don't mind, WHO safe listening school program will be part of every curriculum. We have to start early when children are 7 or 8 years old and moment they should be trained in a fun and positive way. Sound is wonderful. Hearing is positive. Sounds of life are great but let's do it in a safe way. That should be part of it and quality-wise.

Next.

Safe listening should be part of the Grammys and Oscars and golden palm which is happening already. UNESCO week of sound they created a sound like this good sound quality and combination of safe listening should be generated as positive. Good sound quality and safety have to go hand in hand. That should be celebrated. Ricky, of course, already will have another Grammy for safe listening.

Global standards for safe listening venues and events should be part of all of at least most regulations.

We don't have to wait for the project. It should be part of every voluntary part as a conference organizer or venue or big place or whatever you should be proud about safe listening and should be implemented by the way to enjoy sound and in a safe way. Next. As you may have heard, gaming and eSports federation do utmost best to promote it slow and 2035 we will all have opportunities and think all devices and consoles and titles and opportunity to safe if you want and more practice and if you don't have it imbedded there is something wrong with your game. Next?

Of course, by then Andrea wonderful videos will go viral and be available in all languages and opening YouTube and first thing you see is a video and safe listening has to be organized and what to do and great kind and don't know how he will look in 2035 but sure he will tell us more about it in a second and my view of the future.

>> SHELLY CHADHA: Thank you Mark. Thank you for that.
Next, we will move on to Sara Rubinelli. Next slide, please.

>> Wow.

>> SHELLY CHADHA: Yeah. Even more elegant than now, Sara.
Growing older is really something to look forward to. Please,
take the floor and tell us what you are doing in 2035.
Yeah. Please.

>> Thank you very much. I was thinking when should I
start to add my gray? Now I know it will be in the next
10 years, which is good. After this slide.

Okay. So my understanding and my focus is on thinking from
my field, which is very much on education.

What I expect to see 10 years and say imagine a teenager
who is putting on headphones and not just to hear. It is not
just about hearing but is about learning. It is about
reflecting and connecting.

What if safe listening wasn't just about protecting the
ears? We are doing a lot and in 10 years what if we are
speaking about empowering minds on listening, which is a key
dimension of life.

Next slide, please.

Yeah.

So by 2035, we must reframe listening as a gateway to
health literacy. What does this mean? We are talking about
health literacy and talk about educating people and see this
that at that time there is something more established. And
specifically, the next slide.

Yes.

Our joint -- our future self will be defined about how we
listen to music and also to others and to ourselves and to do the
work and know that hearing impairment is problematic for all
dimension and existential dimension and I would like to see 2035

as year that digital dignity include auditory dignity and not all game is hearing loss or no concert lacks awareness and no message is louder than respect. Put it in the dimension.

Concretely what I'm looking and hopefully is for my human turn because when listening is not passive but is actually linked to empathy and to mental health and belonging.

So my ambition is make listening safe will become a make listening meaningful movement, which can shape policy. Of course, at the time, we will have all of the tools to do this. Now we are talking about advocacy.

As you say, Mark, we already -- we still need to have clear things, but at that moment we will be in the position to actually cultivate listening as a human virtue starting from safe listening.

Finally, what all these will end up is the so-called listening society, which is not just regulate. We have done this up to that point. But from that point on it will be about education, design, and put safe listening into every classroom through our literacy program and every device we spoke before about airport and every device by default and by design and should be a safe listening tool and every life stage from infancy to elder care and culture considering and we have listening and it is about how we relate and respect how we hear the word document. This is my dream. Thank you.

>> SHELLY CHADHA: Thank you, Sarah. By 2035, all safe listing goals are achieved, and we can move towards meaningful listening. Fantastic. I will invite the floor now to Michael Santucci. Michael, you look more handsome than now.

>> MICHAEL SANTUCCI: Gee. I hope I look that good. I'm 82 there by the way if I look like that and get to 82 that say big deal, so I want to start by being in 2035 and by recognizing somebody that has been here also 20 years leading us all sitting

up in front of us. Her name is Shelly Chadha. And if not for her leadership, we wouldn't be here. She has been around 20 years now leading this organization. I just want to say --

>> AUDIENCE: [Applause].

>> My outlook is different in 2035 we are living in golden age of conservation. Many reasons contributing to this great success. One is that people are living healthy. Sara mentioned that too. People are concerned about health and hearing and ears have finally gotten into the mix and healthy living helped us and also great part due to advocacy specifically from listening safe initiatives and membership from listening safe has grown to 600 members and smartphone adopters adopted WHO make listening safe standard for devices and systems and today gaming manufacturers comply with WHO IT global standard safe listening eGame play and eSports and today most major concert venues comply with WHO safe listening for events and done with help from others one audio engineering societies hearing and hearing loss prevention and loud speaker and acoustics tech communities are working together to promote safe listening and HELA, healthy ears limited annoyance has spread around all concert venues educating people and AAES conferences continue to promote idea of hearing conservation with good sound and listen for life campaign starting with night industries association and Rob Shepherd spread worldwide and world hearing day efforts are through the roof and celebrities are joining change makers and famous musicians bought into it wanting everybody to go forward with it and work we have done over 20 years teaching children, these children are now adults.

They have their safe attitude that our -- giving -- passing them on to their own children and teachers and parents and governments encouraging stricter laws and regulations.

There is tons of those things going hand in hand to make it easier is tech. Making it easier for clubs is tactile speakers built into the floors of the disco so people can get full feeling they want in their chest dancing on the floor without exposures not sounds through speakers if not on dance floor you can have a nice conversation on this side if not blown away by the base and there is electronic earplugs having an app allowing user to equalize sound to their preferences and sound level is displayed on the app and they know how long they can be listening and automatic safety feature user sends sound signature they like and AI maintains it keeping sound levels safe automatically and at venues AI learns audience at sound level exposures pertaining to each song in the set and chooses which songs could be played louder reducing loudness for -- giving them room at the end for exciting songs and video games have a control that has vibrating handsets to give you a feel of explosions much like the floor I was talking about.

It gives that vibrating counsellor controlling giving them an effect and they are also learning and that is what I see happening and I'm hoping and new challengers, smartphones are pouring into third world countries and knockoffs are -- they are there with no safety features and hearing conservationists is still not part of their culture that will be the next challenge going forward in 2035.

Thank you.

>> AUDIENCE: [Applause].

>> SHELLY CHADHA: Thank you for the wonderful vision and ideas and something for all of us to keep in mind going into the next phase of our discussions.

First, I will invite our next speaker and final speaker for the session, Andreas Thulin. Just a little bit.

>> All right. Tattoo removal is apparently a thing in 2035. It is pretty cool.

But yeah. Like the -- the dream is to like Michael is so beautifully put it the golden age of hearing preservation and think we have come a long way. I want to picture a future in where the -- the guidelines and stuff are being accepted and not only -- not only accepted, but like it is supposed to be cool to protect our hearing.

[Video captioned].

>> AUDIENCE: [Applause].

>> SHELLY CHADHA: Thank you, Andreas, for sharing your vision of the future and to everybody else.

I invite all people in the room and virtual room to raise your hands if you would like to share your vision of the future or what it is you want to see happening.

Please, share that so that everybody can take note. This is what we hope will inspire the next 2 days of discussion. Anybody online who would like to -- to take the floor and anybody in the room? Absolutely. No. It is difficult to travel back 10 years in time and come back to 2025 to think of what you want to achieve. Simal?

>> Since you asked, no. I think what I would like to see is that we see normal hearing conservation being natural in dialogue like no discussion around wearing seatbelts today but 20 years ago it was always a battle to have that.

Today, it is -- yeah. You want to not wear a seatbelt and risk yourself, go ahead. The car will keep beeping and anyway. I would like to see that. That it is easier, and the message is engrained, and we don't need to fight to get it through that it is important. So for me that is one aspect. The other goes a little the direction that Raj mentioned this morning about what

we have done so far that accounts for contributions of -- of the, you know, exposure for particular and specific sources.

We have to have more integrative and holistic approach to accounting for -- for sources coming from the different contributions and then you have an estimate that is global for an individual and yeah. Also buying into this idea of -- that -- that there was had about something to hold your calorie or something like that and something you can count that you are consuming and that would be more relatable and maybe not scientific but something to be easier for people to keep track of. Yeah. Thank you.

>> SHELLY CHADHA: Thank you, Simel for those important interventions and thoughts for discussions into the future. One intervention from online from Ian and clarity of any amplitude. If you would like to explain more, feel free to put in the chat or raise your hand and his message he would like to see clarity at any amplitude. In the room, if you would like to take the floor, use your name card to put it up straight so I know you wish to take the floor.

I have Atrinola and Lydia and don't see any other hands online.

>> More younger people in the room in 10 years. That is the audience.

Also a more -- more connection with low-income countries and better implementation in those countries.

>> SHELLY CHADHA: Thank you, Atrinola. Very important points. Lydia.

>> LYDIA: Thank you. Combining two messages I had today for the future. One is from Mark and one from Michael. Simplified messaging and understanding like 80 decibels over 40 hours in a week and same messaging and making sure that everybody gets the same thing no matter what country you live in

or where you are. We know that instinctively without even thinking twice. This is the magic number.

But at the same time, I would like very much what Michael mentioned about healthy living.

There is so much talk around that yet ears did not make the way to it.

This is important and it should be part of every-day discussion and every-day health care discussion to ensure that nobody is treating hearing loss as oh, by the way. It is just hearing loss. It is more than that.

Third from our perspective, as you said, is awareness how much hearing loss impacts a person individually and why it is so important to take care of it.

It is a precious thing. Thank you.

>> SHELLY CHADHA: Thank you, Lydia, for the very pertinent points raised.

>> In 10 years' time, there will also be more awareness about all of these standards that are so important but not only technical people but also in the public.

I know it is not the audience of standards but think there is so much work behind that. There is so much investment and we live in a -- in a world full of low-quality information and these are standards people can go to find what are the risks and guidelines and rules, so to say.

I think in 10 years we can hope there is more of this awareness and that these standards also become a place to go also for people owe out there.

>> SHELLY CHADHA: Thank you for sharing that and Billy Martin from the virtual room saying I would like to see transition changing awareness about safe listening to changing listening behaviors. Thank you for your intervention.

Also, more technology would have built-in capabilities to explicitly and intentionally warn about the importance of safe listening using a voice and not just a subtle message.

Thank you. If anybody from the online room would like to take the floor, you are welcome to raise your hand to do so. I don't see any other flags.

Anybody else that would like to share what your -- what you think we should be aiming for or where you would like to see us going?

Yeah. Please.

>> Hi. Thank you very much. I have a vision that every announcement of events has a sign on it. As we recommended that any colors from green to red and everybody will know, yes. That is our red sign and then I have to take my earplugs or anything or I can find anything to protect my ear and when I take any child, I will know this sign shows me how long I can safely take her or this child into this event. So that is my vision. Thank you very much.

>> SHELLY CHADHA: Thank you, Anita. Please go ahead, Mark.

>> Your vision is interesting. In Brussels that is already happening. In Brussels they have special signs on the doors saying this is the listening level and how safe it is.

>> Thank you very much.

>> It is happening somewhere.

>> SHELLY CHADHA: The future has arrived in some places at least. We have to make it universal and global, and it shouldn't be limited to a few countries. I have online a hand from Lin Grace bluecom technologies. Grace, please put on your camera. Great. You can speak.

>> Sorry. Can you hear me, right.

>> SHELLY CHADHA: Very well.

>> Thank you. Thank you so much. It is my honor to attend such an amazing meeting today.

So because I'm a technology company that manufacturers headsets, the endusers advise us. I want to share ideas from our industry insight.

Okay?

Because nowadays after making a lot of professionals like doing more and more online meetings like right now.

Most professional headsets are manufactured in China and hope our new product can send a positive message to industry regarding hearing production and we aim to encourage more industry stakeholders to embrace technology innovation and social responsibility like now we develop kind of a product that I can show you. Like this attached screen. You can see it is a green ear that means like a -- right now my level -- like my speaker level exposure is like lower than the WHO's recommendation limit.

This is why we want to do like -- incorporate with WHO and ITU to raise more awareness and among our users and also our manufacturers about safe listening practice.

By 2035, I want our industry to create more audio products aligned with comprehensive industry standards and guidelines. Thank you.

>> SHELLY CHADHA: Thank you, Grace, for your intervention. Thomas?

>> Thanks. I think probably the most important single thing that WHO and ITU could do is establish a baseline 80 DBA for every baseline. If we had it established everywhere, we could make it more operational for people and go to symmetry percentage that everybody can relate to regardless whether recreational listeners or going to concerts or movies or something like that moment. The moment we have different

baselines in different categories or applications, it becomes impossible and people simply give up and (?) Can't add sound exposure.

We have to be able to month of to percentage and there this is the same everywhere and WHO has a big and important role to establish that baseline everywhere.

Thank you. Chuck and Cuba and then we will close the session.

>> Thank you. After spending 30 years in the US government and two main programs, occupational hearing loss program and recreational hearing programs have basically been shut down in the US.

We have no leadership in the US.
As we move forward, it would be wonderful to have the WHO take a more active role on a global stage that takes into account what is happening in the US on all levels that deals with hearing health and safe listening and wanted to share that perspective that is -- not many people are aware of it. We hope that, you know, that WHO and European partners keep taking full leadership on the efforts and in the hope that the US will follow it at one point. Thank you.

>> Thank you. Thanks, Chuck, for that intervention.

>> Two points I'm hoping for the future and first one is there is no stigma associated with devices in your ears so like wearing glasses today. I don't know how many people in the room have glasses. When I'm talking to you, I don't know whether they are on your face or not. I don't really see them. It doesn't really bother me. I'm hoping a similar thing happens with whatever we put into our ears.

I think I already am starting to see it happen in the grocery store, we walk around with our airpods a bit. And on the airplane, they would ask me to take them out during

announcements assuming I couldn't hear the announcements but no it is fine. I hear you better with these in my ears and hope that is fine and be are moving into that direction and that it becomes transparent like glasses on our face. And second one is kind of -- I'm sitting here laughing at myself and hear people talking about dose symmetry and metrics and 80DBA percentages, and this was topic of my master's thesis 12 or 15 years ago. I have been having these arguments for so many years. Which number is it and what metric is it? It should be a person -- Thomas, I was percentages the whole way. You know? I could keep having the argument another 10 years and it actually just occurred to me. You know what? I hope it doesn't matter anymore and hope I put a device in my ear, and it does everything for me. I don't want to keep educating people about decibels, and I don't think I should have to and I don't know AQI number, and I'm sure scientists understand air quality metrics, and I know I need to put a mask on, you know?

I don't know the sun or UV index and don't know what range or scales those things are on and know when I go to the beach I grab sunnies and sunscreen, and I'm good.

I think that maybe even just abstracting it at a way to the point where if like Raj said, I think, on the panel that all devices communicate together and that is something we have to certainly standardize and there is a data base on whatever AI and computer on my head and 10 years from now that is tracking dose symmetries for me then abstract it away from the user; right?

I don't have to know how many decibels or hours it is. Everything should just happen automatic, and I'm happy to have debates and conversations about decibels but 10 years from now it will be done.

>> SHELLY CHADHA: Thank you for that. We have one more intervention and then one more hand from Moss which I can't ignore. One intervention to say technology to support safe listening is available and real challenge lies in encouraging people to listen at safer lower volumes requiring cultural change much like shifts we have seen in younger generations attitudes towards alcohol and promoting long-term hearing health depends as much on social norms as technical solution and vice versa and from Jonathan saying it would be wonderful if artists introduced encouraged listening to output under optimal conditions and become promoters and advocates of safe listening with appropriate loudness contrast and audio quality.

For example, this could place momentum needed for promoters to provide required number of loud speakers for acceptable variance of audience so thank you for that suggestion.

Lastly, Moses, you have the last word. We will then close the session and move to the next.

>> Thank you so much, Moses from Uganda. And personally, I would be so happy to have everyone informed about safe listening where everyone at least is aware that safe listening is everyone's responsibility.

Where everyone understands the dangers of hearing loss characteristics associated with having hearing loss where those that have been affected with hearing loss and not hiding but coming on board to share information to send the actual message to the audience that safe listening is actually important and one can be affected if we don't put message in place like this. Lastly, I want to see ministries especially ministries of health in many countries one chief marketers or those ones who share about safe listening initiative when every ministry has something about safe listening about it. Thank you.

>> SHELLY CHADHA: Thank you, Moses. Very pertinent and suitable way to end this interesting session. Let's give ourselves a round of applause.

2035 sounds very exciting and everybody said indicated and informed, and we have achieved goals that we are setting ourselves.

To get there, and you said, Thomas, that WHO and ITU should do certain things, for sure.

What will ultimately get us from here to there is really all of us and beyond this group online and in the room a lot more people acting and committing themselves to acting now and in the near future.

To make that -- to pave that way for that to happen, WHO is launching or plans to launch a call for commitments inviting commitments from all stakeholders in this field as to what is that you can do to ensure the vision of safe listening for the future or for the next -- by 2035.

Moving to the next slide.

What we -- why we are planning to launch a call for commitments is really for having -- next slide.

It is a way to share these commitments to have them and firstly encourage thinking amongst different sectors and stakeholders that are here today but also beyond as to what can be done.

Stakeholders that we would like to see or have listed and you can click a few times, Irene. All of the sectors that are represented and could be other sectors we are missing and want to also have you tell us who are we missing else that needs to commit?

What we also want to do with this call for commitments is to then put it on our Website and to see commitments from all stakeholders and then to put those commitments to showcase also

those commitments and engaged stakeholders on our webpages and WHO webpages for global interview what is happening in this space.

Next slide. What we would like to do now preparing for call for commitments that is a draft for your consideration, discussion, and feedback.

We have prepared this draft which we will be sharing with you. I have it here. There is a number of areas of commitment relating to different areas that we have discussed that is about standards and about venues and about behavior changes and awareness and so on and so forth.

So there is a number of commitments and areas as well as -- as well as actions and examples of actions we have listed on this document.

Next slide.

What we would like to really ask of you is to now go into smaller groups and to discuss these.

Does this do these commitments make sense to you? Do these areas or stakeholders make sense to you? Are there people or sectors we are missing or sectors that shouldn't be there? We would like you to really go through this call for commitments and will share in each of your groups call for commitments that is on the meeting webpage and draft call that is not the call but is still a draft for your review and your constructive feedback. After this meeting we can have ideas and we can have concrete feedback and finalize this and get your thoughts how then we can disseminate it and share it widely to get a broader buy-in into this area.

When you are considering this and if you go into details of examples we have listed and you make suggestions, please make -- idea is to really have commitments that are specific that can be measured and are realistic and achievable and are time bound.

We are looking at a period right now for commitments for two to 5 years at the most and gunning for 2030.

Lots needs to happen in between to reach our vision for 2035.

What can be achieved until 2027, 2028, 2030?

That is what we would like you to reflect on and to provide us feedback into this call of commitment.

What we will do now is, next slide, is to go into groups. I will show you groups.

We will divide into four groups including online panelists who will all be in one group.

We will provide you with a report back format. In each group we request you to identify a moderator. And a rapporteur. Discuss this call, and we will give you copies of the call for commitments.

Look at copies and provide us with format template that is provided to capture your group suggestion and be as specific and practical as possible and submit your feedbacks to us.

If you go to the next slide, it has two parts about review and feedback and what is missing stakeholders what they are missing so on and so forth and next slide. Also, what is the -- what are ways to promote it and those are the two sections.

This part I would say we will provide groups and instructions included in template for reference. There is a slide there. You can refresh. We have here groups and will put these up also on the wall there so you can see group 1 that all participants online participants and 4 participants will stay in room here and group 2 follows Lauren. Could you stand up?

Group 2 will follow Lauren to the room opposite that is K1. Group 3 will follow Irene who will stand up as well.

And you will follow her across the corridor to room K2 and group 3 will -- sorry. Group 4 will follow Carolina. You will be taken through the inside of ITU 328.

>> Yeah. G3 had to change to room 328 in this building which is just third floor here.

>> SHELLY CHADHA: Third floor to room 328. Each group has 10 people. Did you find the slide?

Okay. Doesn't matter. We had this here and please check your group and I will call it out and you can stand up. Group one stays here. That is Lydia and Andreas please stay here and Adrian Fuente and Kelly Tremble. Please stay in the room.

>> This is only room with captioning.

>> Yes.

>> If anyone requires captioning to follow meetings, stay here and inform the WHO colleagues so they are accounted for.

>> Yeah. Group 2, Carissa. Brian Schmidt and Andrilota and Anita and Mike Santucci go with Lauren. Sarah, Colleen and Serge is not here. Follow Lauren across the room and group 3 is Cuba, Teresa, Antonio, Sarah. Yeah?

Jeremy, Group 3.

Thomas Lin also group 3 and Adam and Rick all follow Irene please and group 4 with Carolina and Raphael for those that left already Raj Mark Laureyns, Tatiana, Adriana, Nicola and Jessica. Who was left out? Name not called? Follow Lauren to room 2K1. Anybody else whose name wasn't in the list?

You are in 2. K1. Room K1. You didn't hear your name. Group 3, K2.

That is with Irene. With Irene.

Online participants are in a group.

You want to get organized in the group. Maybe you can come here and however you want to do it. Lydia.

>> I need captioning.

>> Absolutely. Captioning is here also is here on -- yeah. By the way, these also have captioning.

>> Hi. Good afternoon, group 1. It is required you identify 1 person to chair this group and 1 person as a rapporteur to take notes and fill in the reporting template.

Anyone who is actively online, and it will be good if you can switch on your camera for once, and we can take it from there.

I posted the group report outline online if anyone wants to chat specifically.

>> Sorry. I have to leave soon. I'm not volunteering. Sorry.

>> No problem. Thank you. Anyone from the room if you want to take the floor, please do. So with your mic on.

>> We have to have one moderator and one rapporteur from the participants.

Any volunteers in the room or online?

>> I can write.

>> Okay. We have a volunteer for reporting. Lydia, would you want to lead?

>> I don't mind but [off mic].

>> Chithra is controlling hands online and can tell you when they are up.

>> If you want me to, I will.

>> Yeah.

>> Lydia, can you use your mic when you speak so the camera moves towards you?

>> Sorry.

>> We need to read this first, right?

>> Yes.

>> All right. Yeah.

>> Want to introduce ourselves.

>> Sure.

>> Want to introduce yourself first.

>> I will start. I'm Andreas from Sweden and an audiologist, and I'm just the animation guy.

>> I'm Lea and president of European federation of hard of hearing people, and yes. I have also a hearing loss and co-chair of main listening safe workstream and have to get used to calling it workstream.

>> I'm Kelly and audiologist and professor and research scientist and you have met me before.

>> Short as well Andrea and associate and professor in Montréal in Canada.

>> If I'm moderating you are notetaking? Okay. Reading to we are all on the same page, we are looking to draft new commitments to make listening safe across the world. Want me to slow down?

>> Highlighting for online participants I posted draft in chat that you can download and get it.

>> Okay. Does anyone not have a copy? I can read it.

>> Commitments.

>> We will go to second page and say what are commitments we want to draft up. If you have the aper in front of you and go to the second page we will have an opportunity to create a commitment and action. You can see the action leaves places where we can make suggestions of an action item or contact person or company and by certain dates.

With the information at the end, we will end up drafting a template part 1 and 2 and keep in mind what we propose we will come back and ask are you willing to commit to do that or ask people to commit to do this and so ownership and promotion template.

So I can see people and not see hands though if we want to read commitment to implement global standard for safe listening devices and systems we have suggested action items to adopt standard and implement it in devices manufactured by fill in the blank and what year, and I will start that way and open it to anyone after looking at some of these for suggestions to either speak up or raise your hand and who is monitoring online again?

>> There are no hands.

>> Okay. Take a minute to read the first paragraph. We have a notetaker here as well.

>> Go forward.

>> How are you? I have a question. Are we supposed to specify a timeline or this is something that the individual agent specifies for themselves?

>> We are all in agreement Shelly said from next 1 to 3 years.

>> I don't know how much or how long it would take. Do we have anybody that is in the field that can say an indication how long realistically they think it might take for them to implement something like this?

I feel awkward imposing that on somebody when I don't have an idea what it would take for them to do it.

>> Lydia speaking and what could be part of our constructive feedback, doesn't it? It says during group work we are invited to read development commitments and provide constructive feedback and consider any opportunities here and what we are missing or vague examples and feedback is constructive in my view to say actually it is imposing timeline, and that is in terms of getting people on board.

>> I think the timeline is a proposal. Mentioning earlier if you sign up for it, it is not written in stone.

>> This is Kelly and would give an example even with Billy that I like Koala's suggestion that I wish episodes could turn into -- that will never happen, but we can put it down there and approach Cuba to say what is realistic and might say 5 or 10 years. It is aspirational too.

Does that help, Billy?

>> Yeah. Sammial, can you give us access to chair the screen.

>> I have a question this commission is like we are manufacturers, and we are like group P; right?

If action adopted standard and pre-mandate devices manufactured by confident name by date or year that company name is us and like leaders from our industry.

>> Great question and Grace this is an opportunity for you to say you propose something in your company by a certain year.

>> Okay.

>> And you will commit to it. This is interest.

>> We have this product already. I'm not sure. I have to do industry leaders names here or I put mine here.

Now our product is testing, and I showed in the meeting -- during the middle. We now feed more guidelines from THO and regulations and (?) We want to do this product to alert users. Right now you are on alert levels and using higher levels of exposure.

Anyway, this action, I want to put our company's name. Okay?

>> Perfect. Great idea and good to have more than one company chasing something; right?

If you are making that statement, I think this is a good, bold move. We would take notes.

>> Yeah.

>> Let's hear it in the blue call.

>> Checking if we meet this standard or not and want to note this also.

>> It is good it is aspirational and why don't you repeat and say repeat that sentence and add details that are missing specifically about your technology.

>> Okay. We now are having certificate or certification from any kind of testing laboratories that be meet this standard and in our industry this is common method.

>> By what year?

>> By what year? Not sure. 2028, I think.

>> All right. Good. Blue come is company name that would go in red. Yes. Our company name.

>> Sorry for the delay. We are clarifying and checking our computer to make sure you can see.

>> We have so many hands raised. Peter and (?)

>> Hi, Kelly and everyone. I'm from WHA team as well and stepping in to say it is amazing we are getting people interested in making these commitments and purpose of the exercise is to give commitments and give us feedback as to whether they are real and realistic and appropriate I guess for each facet of the industry, et cetera.

Common cents we are looking to fine tune commitments and W- is pretty good if someone is willing to commit already and second is grace and consideration and performance testing is a topic of discussion in thematic workgroups and this is a better process and we need a better way to tell if manufacturing (?) Is performing and that is a example and worth noting it should be part of this.

>> Reporting template part 1 review and feedback and part 2 ownership and promotion we are not doing that page yet?

>> I think the best way to start is just to go through all of the commitments and **get** feedback from people in the room that

can [chat](#). We have someone from a manufacturing comment and people from other areas of the industry with regards to life sound comment and will start there and circle back to the section.

>> You have such a great idea and helped prepare this Peter can I hand over the baton for you to help moderate then? You know what.

>> Normally we are facilitators and just here to steer you in right direction. Yeah.

>> You are right.

>> Lydia speaking and can I say we got actually first two commitments maybe.

See if anything is not right or we want to add something or think something is missing. Commitment 1 implement global standard for system, and we put certification and doesn't that go hand in hand in.

You can't really -- you have to have a certification don't you? You mentioned this world before but why certification is not here in the commitment?

>> You can't commit to the standard that is a voluntary standard but need a better mechanism to sign off completely. You can commit to doing something and validity of commitment doesn't rely upon having the method to check off and something that should be add and will add it as a comment as part of the commitments and company Y, Y, Z and conform and pass performance contesting process 12 months after implementing standard so that is a gap in commitments right now and would look that.

>> That would be in addition then to add it. It is missing in the first stage.

>> Correct.

>> What to put in the dock: It is commitment statement. Is that just one because it is first commitment.

>> Yeah.

>> Clarity, yes or no.

>> Do we have clarity or not?

>> Tell us overall if you think commitments are clear and relevant and feasible and if for particular commitments you suggested changes put it specifically otherwise you don't have to copy and paste commitments here.

>> Okay.

>> If people have ideas and are committed or willing to commit to it is okay too.

>> Absolutely.

>> Okay.

>> They will have to respond officially launching calls for commitments and will reach out to them specifically.

>> Okay.

>> I will have two then and will write in document and take notes on a separate computer for eventually separate commitments.

Great.

>> Okay. Billy.

>> Yeah. On -- can you hear me okay?

>> Yeah.

>> Actions, first one, adopt standard and implement it, that seems clear and straightforward and No. 2 ensure feasibility.

I don't know if it is possible to make that more quantitative or objective and ensure visibility is pretty much qualitative and yeah how -- what is considered visible? I'm not sure how to address it in a short time, and it is a bit fuddy for me. Incorporate same listing features and is there a specified number or specific features that should be in? It will be good. Again, these are all great things and it is just

they are variable. So it might be hard to put them in and adopt national legislation that seems more straightforward and would say that the middle two would benefit from being more specific or leaving them very open-ended and having any form of progress being considered fulfillment of the commitment.

>> Lydia speaking and agree No. 1 is clear to adopt the standard.

Personally not sure I put yeah and maybe there is a commitment maybe that is much more open but when coming to ensuring advice ict to me means there is a log on that has certification as well and shows broken egg or something like that we had once.

That is for visibility and safety advice is conforming to very global standard and to me is what we are asking for.

Maybe it has to be a more clear logo or sometimes because you could say we are (?) But we don't (?) Are you or are you not? How do you know? You have to have log on I think.

Incorporate future is fine and adopting national and (?) Legislation and we are talking about company name and implementing global standard in devices and for adoption of **national**, subnational legislation that is more like No. 5 or 6 when ah don't as policymakers and legislation.

>> What would your clarification be?

In fact, I will summarize and make sure that our notetaker has what they need. When looking at commitment 1, action items that need clarification 1 and explicit commitment to certification not just a specific standard but certification and second thing is talking about ensuring visibility and how do we define or improve visibility? Is it a number or.

Incorporate features into product labeling is too vague and make it specific to meet specific standards or we are open to

any form of improvement and 4th one Lydia I don't know what the
--

>> Sounds like it sits with device manufacturers.
Doesn't seem to sit with device manufacturers. It is about
policy action.

>> Seems to be conflict between in devices marketed and
then it is -- you are talking about national legislation?

>> Exactly.

>> I might have to get you to explain that.
Remove the device or national.

>> No.

>> Just the whole point.

>> The whole point.

>> Okay. Yeah?

>> Just about 4 and coffee is served outside and
reassemble around 415.

>> To be clear we have until 4 o'clock, and we are
probably running behind and have to move on and need to clarify.

>> One last thing, certificate what is the -- I don't know
where to put it in and all I wrote is suggested changes that is
too it is unclear of visibility and that kind of thing but yeah.
Certificate thing.

>> Couple hands up.

>> We have hands up. University of Colorado.

>> So this -- the point is the whole section 1 here really
looks like 2 points and adopting a standard is inclusive of
2 points there ensuring visibility of safe features and
incorporating safe listing features are part of the standard.

>> Yeah.

>> Second part is adopting national legislation to
implement the standard and think it belongs in commitment 1.

It is how we implement global standard for safe listening devices or anything else and implementing standard is two things getting commitments from companies creating devices and No. 2 creating regulatory environments to enforce that.

>> Are you singing? We leave it in? It is part of implementation not just for concept and awareness but actual implementation into device.

>> Yes. We leave it there or delete two subpoints above that are part of adopting the standard and implementing it.

>> Uh-huh.

>> I mean we might want to keep them as a -- we maybe want to keep them for clarity but feels they are subpoints of adopting standard.

>> Suggestion is we keep moving forward. It might help make a decision when we go back to see No. 1 whether we keep it in or move it to a different section or something like that.

>> Lydia speaking. When I'm looking at this statement to implement global standard it says adopt standard and implement it in devices manufacturer it by company.

It is not a policy.

This is just implementing the actual standards and technical things in the actual devices and what it tells me. Companies are committing to this and what it means is companies have to be involved in national, for example, development. You are transposing existing.

>> I agree with previous comment. Yeah. Depends on national regulations and this says really you know it would depend on (?) And some countries are regulated and these countries will regulation this some companies have to comply because it is regulated and looking at No. 5 it is to advocate

to policy change and not really related, but we can keep it in here.

>> Okay. Other hands up? I want to make sure I didn't miss anybody.

>> (?) Has a list.

>> Thank you. Regardless to commitment number. And, for me, my understanding is not just a logo but ability to know that this specific device has this feature and this feature and this feature that are supporting (?) And is my understanding from this action and not just having safe list logo but knowing features within this device that are supporting safe listening is my contribution to this.

>> Thanks for that point. In this case would recommendation be to have a label that says verified or certified so we know it is compliant?

>> I think you are asking me and if asking me I think about maybe a label or maybe some icons or something like that that are showing these are the features within this device that supports safe listening.

>> But sorry, Adrian, again and someone comments. I don't remember. It is difficult because it features and how many features are there? How will we implement -- somebody mentioned that problem with that is how will we implement that? Might be so many features, and we go back to certification and think we should move.

>> Yeah.

>> To No. 2.

>> Yeah.

>> Sorry. In English speaking we have a testing center, correct?

Manufacturists can apply for testing center to confirm and are supporting we are implementing standard correctly.

>> We will speak about that tomorrow in one of the sessions but we can define a test program or certification program and when that is in place, that does not exist yet, but we have specification for testing and standard and first one and we have another specific indicator showing how to test and we need to put in place with a list to qualify numbers and something that needs to still be done and in pipeline.

>> May I suggest we add a testing center is required or needed in next 3 years to be able to verify?

>> Okay. So okay. Let's move to No. 2 which shifts away from safe listening devised to safe listening venues and events. I won't spend time going through them. If you have your hand up, I think I see one.

>> Lydia speaking. I like No. 2 commitment but not sure collaboration 3 or more event is a little too much to ask and some to actually reach one major event organizer is a huge achievement already.

>> What if all of us approach one then we have 20. It is possible if we spread it out and think it especially across the world; right?

I would disagree it is too ambitious. Okay with that?

We have hands up. University of Colorado and forget your name. I can't see it.

>> Corey.

>> That is right. We know each other but couldn't remember. Sorry. Go ahead.

>> This is very interesting we have different language between sections 1 and 2 here.

Section 2 has very specific goals I'm unclear who the commitments are aimed at. I see the keys there. These are -- the first goal is more aimed in my mind at members of this

organization. The WHO as a promulgating organization than anything.

I wonder if -- I wonder if this should -- I like this specificity of the goals.

But I also wonder if it is maybe our goal to say we should -- we are looking for X number of venues to adopt standard and implement it rather than saying who we are collaborating with. Who is collaborating with different venues? We want to set the WHO group to take constructive specific action that is certainly one thing but is different than how it has been phrased in commitments 1 and 3.

>> Hold that thought. We have three hands up that might want to add to your comment before we tackle it. Okay. We have University of Denver. That right?

I can't see.

>> Let's go to Panama.

>> Let's see if we have to add or take something out and from the second one it is a projection of what we can do as a whole, I think. It is not only for one group or anything to do at least on the first one to collaborate with major events is in a timeline and second one to integrate it for the new standards in countries we can at least ask for 2 or 3 in this point that I would be able to at least try in Panama to have this one, and we could have one there.

500 venue stuff also.

>> You are on mute.

>> Yeah. So for the other one to train staff it is in any place. We can have 500 in a country. It is not difficult to have it.

>> Okay.

>> I am hearing we keep things as-is and more detailed of a timeline in No. 1 and anything you want to address and

converse based on that comment and where I think we are going but don't know and over last 10 years of this Peter corrected me if I'm wrong and if there were action items who would be in a position to do that? We are not asked to name that person now but Corey asking about who is doing this my assumption is it would be us and change -- stakeholders and choosing a few events and integrating standards and training staff would be things we would help to make happening.

That help give Corey context?

>> Yeah. It makes complete sense to me.

I suppose if I put commitments out to people to meet beyond our group but seems some of this is we will push or promulgate these commitments for companies to join in for event organizers to join into and commit.

>> Public messaging.

>> Yeah. Perhaps we want similar language between different things, and I might say, you know, we want -- we want to say we adopt -- you know, we want venue owners to adopt standard and implement it.

>> Yes.

>> Groups like you know research groups or WHO groups might be collaborating with three or more event organizers to adopt the standard and put in the implementation.

>> Yeah. We will need to move that on.

>> Okay. Context is there.

How it is framed whether it is -- who the actor is and recipient is I think is up for debate and want to make sure university of Derby gets a chance to talk.

>> Sorry. Is that me?

>> Yes.

>> Oh, sorry. I didn't know I was listed as that. Thanks very much. I wanted to say that I think the actions are

incorporated already. It has already begun, and they are part of -- covered by healthy ears limited annoyance the Hela initiative and think it is already in hand, I think.

>> For the notetaker, any specific recommendations and changes of wording or language?

>> Not sure it is required unless hello is not considered part of the WHO's work.

I am unclear and thought it was --

>> Some comments in the chat box. Can we see them?

I don't know how to have access to them.

Can anybody else help us with that.

>> Chitra can help you with that and can you read comments in the chat box, please.

>> Sure. We have one and goal for commitment and two is covered by having limited annoyance initiative and we have also a few other comments and one again from Dr. [Bigby](#) Jonathan saying QR code or link to organizational information about making listening safe we have a comment from (?) University first clarifying nature of measures to be piloted at events and second strengthen policy integration answering with monitoring mechanism and third add quality (?) Target focused on learning outcomes certification and criteria.

>> I think what I'm hearing is additional details that are being required but to objection to concepts here of training people or providing integrated learning standards and details that are helpful.

We won't say to add or change what is here and adding other details.

>> I will add at end of each commitment you will see a tag that says AGR that are specifically to stakeholders you have that. Also below with commitment saying these commitments are tagged for these stakeholders and clarifying what is (?)

>> Thank you for putting it out. Korea helps clarify who is acting and receiving and going to the reporting temperate page there is tags. Thanks for pointing it out.

Effort to move forward, are we okay to go to No. 3 to implement global standard for safe listening video game play and eSports and context is changing and is the same.

We will take a quick read over five of them there. Raise your hand if you want to comment.

>> I have a quick suggestion.

In the table, so the last slide that we have to fill in we can probably go and say what is clear or not and relevant and doesn't make sense. See what I'm saying? It will help you fill in the table. Right?

>> We can go through things one by one if we want to. Like the -- is this clear? How is the relevance and feasibility and go to suggestions if we are ready to. That what we meant?

>> Yeah.

>> Hi, Lydia speaking here and coming back to university of Derby, register of high la doing things and doing it right but (?) So why if it is a commitment and we are doing it and we have one commitment happening and think I'm sure it is pretty much about Halla.

>> Recommendation in the chat is QR code and hella would be another ops. Clarifying and want to go back to 3, clarifying and making it simple as first pass is it clear yes or no? Highly relevant or low? Is it feasible.

>> Clarity No. 2.

>> Is No. 3 clear?

>> Was No. 2 clear?

>> [Off mic] No. 3 is clear I think so and is highly relevant.

>> Any objections to No. 3 being clear? Peter, is that your hand up.

>> I would like to read comments in the chat from Ian McGregor and on this topic he has three comments. No. 1 item No. 3 and action 1 is clear but 2 vague and should specify which safe listing features are to be implemented and what type of devices and clarity is okay but too vague on point No. 3 that is a useful outreach action but can buy unphrasing in a typo. I think it is another situation where there is not enough content and in principle idea would be more clear and most No. 5 that is about collaboration from communities and -- during live script stream and tightening up being more specific and so these things can be measured when a commitment is made is what Sofia is saying.

>> If I summarize for notetaker looking at No. 3 five subheadings and first one is clear and second one is unclear. It is too vague.

The example is what features are they speaking about specifically and No. 3 is unclear. Again, it is requiring more specifics.

And No. 4, it is clear.

No. 5 is unclear. Example is what type of can frequency, which is more details than that being an example.

>> Type and frequency.

>> What type of collaboration are you doing and how frequently are you doing these things.

>> Okay. Now anybody else want to contribute to No. 3 before we move forward? Thank you for comments. We are going fast now No. 4, raise awareness on target population. Y being youth group and P private sector and C being Civil Society.

It is a broad network here and launch of digital awareness campaign across tik tok-Instagram and YouTube reaching how many youth by 2025?

It is not we are being asked to answer that date and how many but seem like a reasonable a -- integrate developing safe listening content. Not hearing anything and assuming yes. No. 3 turning the page partner with device manufacturer to imbed WHO safe listening messages for teens product packaging and digital interferences not specifying who. We are saying we need to work with manufacturers. Seem clear? Objections? No. Saying yes.

Launch digital messaging campaign safe listening based on who safe listening messages? Okay. And engage in with at least blank youth influencers promoting co-designing campaign messaging and visuals by a certain date that is clear and important.

>> Key one.

>> 4 happy with everything. Content, do you want to say anything Jonathan.

>> Not sure 3 is an appropriate approach.

>> Okay.

>> Imbedding messages and think it is -- could be seen as an annoyance.

>> Okay. I think that is a good point too and what would that message be?

So perhaps we can out of all of them we can make that one. That is No. 3 that is unclear.

It is for reasons on there that is a suggestion. You know.

>> I think for instance hearing suggestion or recommended behavior from a peer or someone they respect would be useful getting message across and popping up a message or intrusive thing would be -- might not have desired result.

>> Hearing you maybe suggest it is intrusive or policing and could have negative reactions.

>> Correct. Thanks for clarifying my thought.

>> Okay. Kory seeing your hand up.

>> I will say that I think that is covered under two other point implementing global safe standard listening devices subpoint section 1 and section 3 in video games.

I don't -- I think that is subsumed by those and partner device manufacturer for safe listening messages for teens should fall under the other two as well. More own, I don't think I want to highlight a comment in the chat from Billy Martin making sure that safe lessening educational content base is evidence-based and attitude changing behaviors.

>> Love it. Suggesting one point under this section that we add because all approaches be based on evidence-based data.

>> Say it once again.

>> Whether all approaches whether messaging or campaign messaging and content of training and education be based on evidence.

Billy, correct me if I'm not conveying what you intended. Okay. Other hands? I don't see hands.

No. 5, to advocate for policy changes to implement safe listening policies and regulations and stakeholders are G and C that would be government and Civil Society NGOs.

To advocate for policy change to implement for safe. That say straight forward chat request.

Any concerns about No. 1?

I don't see any hands. Concerns about No. 2?

Okay. I will mark them as clear under No. 1 and 2 under 5.

Okay.

This is just.

>> Online about .1 aligned with policy processes could we strengthen with I'm of regulation or outcome and .2 a practical event.

>> Can I get you to pause and repeat. Sorry. I missed the first part.

No. 1 under 5 is we are requesting clarity that can you repeat what was being ask. It could be indicating the type of regulation or desired outcome.

>> State.

>> Regulation.

>> Type of regulation and outcome.

>> Two, practical awareness building step. It would be more effective with detail on expected outcomes -- sorry. Expected outputs or follow-up mechanism from dialogues.

>> I will put not clear and require more detailed outcomes as a example.

>> One, sorry, I missed that is for commitment 4 action. It is to add an action providing making safe messages during concerts during population is targeting concerts.

>> In addition to make announcements during concerts in loud venues.

>> Thank you. We can't see the chat. If you.

>> No problem. I'm taking note. They are pasted below this template as well.

>> Great. Great. I see Billy has a hand up.

>> Quick question. For No. 5, who is this targeting to take the action? Is it just anybody? Some earlier ones appeared that some manufacturers targeted. No. 5 I'm not wanting to change it but curious what the intent was.

>> Could be anybody and for me I'm curious and from Montréal, I could have gone to do it and clinicians are thought that anybody first could go and commit to that.

>> Thank you.

>> Next to the commitment you see tag GNC and (?) Side proposed by (?) Legislation and Civil Society and if you feel other stakeholders could be part of this commitment, feel free to chair and suggest that.

>> So yeah. I think that the -- if it is a policy and people making policies are governments and licensed Civil Societies and only other policy I could see would be professional organizations with best practices and things like that.

Yeah. Lydia is showing G and C and what it is. I'm thinking for example Billy American academy of audiology or British academy of audiology could have best practices that are professional recommendations too if you feel you should add something like that.

Otherwise, we have it about covered.

>> Perhaps we add an H to that which is healthcare providers group.

>> Yes. Good catch.

>> (?)

>> Yes. Great Corey.

>> Academia and academics don't make policies.

>> One thing is advocates which say commitment. We advocate. Who is the target?

>> Right.

>> Audience. They would be the bodies there.

>> That is --

>> That is why two are there and advocating look we should have legislation in my country so if I work any don't know. I go advocate and have regulations and policies in my country and that is the target and me is going there to advocate for that.

>> Right.

>> Well.

>> American academy of audiologists.

>> Yeah. What Cory says falls under H -- health care providers and academy there and as Lydia is also suggesting could be academia. It could be we write guidelines and systematic review to propose policy changes too. That could be a -- we are changing G. Now there is G and C, and we are adding H and A.

>> Yes.

>> Okay. Hands up there?

Comments, Chadha. No?

>> No.

>> Okay. Moving to No. 6 and we might be done.

No. 6 undertake research work building -- developing safe listening initiatives A, H and C and Billy this has your name written all over.

Jonathan says 6, 1 is good. Just disappeared. 6, 1 is good.

>> Reading it out 61 is good and expand including concert going habits. 62, okay. 63, very good.

>> Okay. Basically 6.1 needs to expand to concerts and other situations.

Are we happy with stakeholders being with A, H, and C?

>> A is academia H is health care provider and C is Civil Society.

Text, Chitra.

No?

Comments?

>> NGO will join research. Yeah. Civil Society. Just saying not sure about A, what is it? Civil Society and NGOs.

>> Academia.

>> Civil Society there.
>> They do research.
>> Okay.
>> They might be contributing to -- and academics.
>> We have to double back here to state relevance and feasibility of each of the points.

It is hard to interpret how much you think about feasibility and reference and let's blast through them.

>> Start and part and how feasible is it to get a device that could be manufactured by a certain year; right?

That might be a concern about feasibility there. Low.
Okay.

>> Relevance.
>> Highly relevant.
>> Anybody want to add anything? Chadha, text there.
>> Regarding -- sorry. Visibility. Not sure it is visible but what about manufacturing. Anybody from manufacturing here?

>> Gracie had optimism.
>> I don't know.
If you think of in a couple years would it be feasible to do that? No? Someone from Sony.

>> We are talking about a stamp that tells.
>> Standard, sorry. Yeah.
>> Implementing standard.
>> You are right. Sorry.
>> Sorry. Lydia speaking. (?) Implemented it and Google as well as standard.

>> Implement global standard manufacturers will have to --
>> Do we -- going back to the table we think it is high priority but is it feasible within 3 years; right?
>> High feasibility?

>> Yeah.

>> All right.

>> We have another comment from Billy that says 2.6 and to add a point saying (?) Effectiveness or health promotion materials and education interventions in different cultures languages and age groups.

>> Under 62.

>> Under 6.2 add an action point.

>> You get that?

>> Copying.

>> Copying from the text. If you see what we are trying to do here? We have 5 dimensions of collecting information and sorry if we overlook you and we are being told we are done and we are being called for coffee.

Last minute -- have we ignored anybody? Please speak up and thanks Jonathan for letting me call you University of Derby. Couldn't see names.

>> Do we have all of them?

>> Everything?

>> 2, 3, 4, 5, 6 in feasibility and relevant.

>> No. 3 it is okay to ask are all feasible? Any objections to calling them not feasible? No? Anybody think they are not highly relevant?

2, 3, 4, 5, 6. Isn't it -- yeah. We are good then.

>> Let's see what (?) Comes up with.

>> Okay.

>> This was tough.

>> Thanks, Peter, for helping us with instructions.

>> No problem. Well done, guys.

[Coffee break].

>> SHELLY CHADHA: Welcome back, everybody.

Okay. Let's get this show on the road.

So I believe you had some confusing but overall interesting discussions in the group. Is that a correct summary?

>> Yes.

>> SHELLY CHADHA: Good. I learned lately that things that confuse you are actually good for your brain health and for our mind and keeping our mind and staying away dementia.

It is not a bad thing to be confused and challenged a bit. You can thank me for helping you to stave that off.

So let's hear from the different groups to understand and do better to see what you -- what was the discussion about and if there was certain confusions and how do we address them moving forward?

So let's start -- I see Jeremy is in my line of sight. I know that it was your group that was group 3. Yeah?

>> No. 1.

>> SHELLY CHADHA: It is okay. You were -- let's call it Jeremy's group. Who is reporting for Jeremy's group? Jeremy is reporting. Let's give it up for Jeremy. You have the floor. 4 minutes or so to summarize what was the discussion. Then we can ask other groups to do the same.

>> All right. Can you bring the shared document online? That possible to share it with --

>> SHELLY CHADHA: That is the document you prepared.

>> I was expecting to be able to read it.

>> SHELLY CHADHA: We are changing.

>> Scale factor maybe.

>> SHELLY CHADHA: Maybe hide the room. We don't need to see the room.

>> We were 12 in our group and decided to move into priorities and looked through six work items that were proposed and voted 1 or 2 choices per person and started with item 6 and No. 4 and item 2 and we didn't have time to finish and item No.

6 that was prioritized about 5 out of 12 people in the room. We -- so some cut in 6 '1 that is above habits study and (?) If you remember and 6.3 open access repository surveys and data. We have two -- a couple of things we suggest that could be changed. As well as some actions for the stakeholders and specific comments.

So one of the first questions that I think this is always important to know that who is in charge and who is funding and that applies to three questions.

On that, there was comments in the second or last I should say column. If there was a clear support statement about the who research needs it may actually help researchers and thinking about academics to get words and supports and grant research money to run studies.

If not, that is a different story that we need to have a clear statement who might or might not be achieving in.

Then on 6.1 headphone habits was the question why don't we expand age range and to go lower. It was an interesting one.

No. 2 on toys were clearly different version **pegs** and some people believing it could be a little irrelevant and noise emission and too much and we know the danger and some felt it was irrelevant and some thought it wasn't an important research aspect more measurement and conduct business as usual for most of us researchers in the room.

Might be misplaced in the document and belonging to another section 6 that is not really research and No. 3 had interesting point and research repository and cool that we share practices and song and awesome that we could as well share supporting data.

I made but we had this morning the discussion about why we use DVA in (?) Settings and there is a reason, and you are welcome to the data that is not available nowadays about you it

is changing in research and should share that with all researchers and back to missing actions and stakeholders and last column 6.1. Again, for headphones habits and young people and E for education sector was missing and researching for fact that you needed to have clear outcome and all those actions we are good for that table to have clear outcomes benefiting hearing and hearing health and if not maybe we shouldn't spend too much time on research for it.

6.1, again, headphone study, you know, we have the feeling there was a feeling we know already the answers and don't necessarily have to redo all studies and maybe filling in some gaps with age and getting to younger age as well.

I think that is it. I think I covered all of the points. The group did. Yeah. Let's move forward to No. 4 which is the line below, please.

I'm good on time, actually.

>> Can you please move the page down?

Thank you.

>> Yeah. Thank you. Here we broke -- there is six or five work items bringing it down a little bit more.

>> Please further down.

You see them.

We had for five of them we had general comments and for example getting things simple.

You know, keeping things simple and stupid and had product rating and scales like nutrition score in Europe that explain how products behave. And if this is an earpiece that features (?) And if this is venue and marking colors and song and always add new variation component and research should be all those studies are only worth doing if they bring some outcomes on hearing health site and nos 1, 4, and 5 are quite similar and

missing stakeholders and this was a recommendation that had common and clear messaging. Can you go a little bit?

There was a suggestion for you to relay initiatives through the events taking place in '27 and for No. 4.2 and super hard to bring (?) Training because kids are busy and idea to double dip and if you have a site visit and visiting a lab and researcher academic site and have message and the awareness message at that moment. There was an intriguing question and will leave you with this one: Who is partnering with who?

Yeah. Stakeholders and who is leading the -- those initiatives.

Did I miss anything, group?

>> Maybe just if I may Jeremy, we agree that having WHO backing behind early educations would be very helpful in various ways.

>> Yeah. Excellent point have (?) Reach out early as possible and kids are sensitive to sound and loud noises and would put their hands for it and it is important to utilize that.

>> SHELLY CHADHA: Thank you. Some very interesting points.

Any other group members wanting to add anything that Thomas already did? Anybody else want to add anything? One point for clarification. We will have discussion together.

Who is partnering with who? Is that suggestion for a slogan? Is that a question?

Just for me to be clear.

>> I may need some support here. Group, where are you?

>> I think that was for me and it turned into a joke but was a serious one. I think it was unclear whether -- on educational side: Were we looking at some middle person organization approaching educational institutions to partner

with them or are we facilitating the partnership between WHO and educational partnerships?

We thought it would be a better thing to be promoting and to have a direct partnership between make list and make safe and the educators.

>> SHELLY CHADHA: Thank you for clarifying that, Adam. Any questions for clarification to the group, Mark? Yes?

>> Research part, on the toys, I was slightly (?) That we could take arguments.

>> SHELLY CHADHA: Maybe take up in discussion part. Others might have perspective on demand. I will make note of it and you too also so you can bring it up. Who is next in line of sight?

That is Kelly Tremmbly and Lydia.

>> Andreas is our notetaker and sharing notes with us and projector. Group 1.

>> SHELLY CHADHA: Can you put out a group 1 template, please.

>> I mean, I was pretty much busy trying to condense everything. I wasn't there for all of the cognitive function was in the computer not discussion lots of times. If you want to, that would be great. Thank you.

>> Starting with No. 1, breaking it down into was it clear thought it wasn't clear but it is high priority and highly feasible and let's break down and give suggested changes and when we looked at 1.11 of the clarifications was adopt the standard and one standard and implement it in terms of devices and wanted to be more clear we need some type of certificate so when you are on No. 2 ensure visibility and what certification is and.

>> SHELLY CHADHA: Can you try using another microphone? Seems to be something to do with the microphone. Thank you.

>> Okay. Topics really had to do with the first two and first three. Is that better?

Okay. Ensuring visibility and repeating myself to make sure there is a clear label and we are sure we are all of the devices and all systems are consistent and what does visibility mean and having a type of label or sticker verifying whatever the device is complies with WHO standards.

We wanted to make it clear. It is certainly not clear. We also felt like what was missing is there should be a type of testing center to be able to verify that products are actually in compliance that would be ideally in the next 3 years and missing item is label or icon or something to verify this actually meets standards we walked so hard to establish over the last few years, and I will keep going and if anyone wants to add from my group when I'm done, feel free to jump in.

No. 2, was it clear? No. High priority? Yes.

Feasible?

Yes. We felt it was a lot to -- people felt it was a lot of work to contact and collaborate with three major event organizers and maybe all of us, whoever is involved reached out to one as a start or 2 and across the country we can maybe slowly grow consensus and population over time. More detail would be needed including a timeline and this ended up bringing up a point talking about whether we are providing some verification or some type of collaboration and what comes back to No. 1 again what is visibility and certificate, and we have Hela and hello. Maybe that is what we are doing. Let's just commit to using that and No. 1 talking about devices and some type of sticker and No. 2 a QR code or something to verify (?). Moving to No. 3, no surprise our group didn't think it was clear but high prior priority and highly feasibility not all of it was unclear but No. 2, we felt when talking about securing

agreements and leading videogame companies to have safe features we didn't know if what features we were talk being was explicitly stated and even though we worked a lot on it and there are assumptions made here and it would be important to have it written out about what features and if we good to the next one a little further down, again, it was unclear and need more specifics in terms of what -- I can't read that part from here.

3, 3. If you can move on.

Let's see. I will skip that. I guess the other part, what was missing was -- I guess my notes are a little different here.

>> SHELLY CHADHA: I think we have your written feedback with us if you can summarize overall if there is standing out things.

>> Yeah. I think again for the most part the rest of the ones were a bit easier and one that stood out a little more was No. 4 when going down to the last few parts.

You know, making announcements during -- making announcements during concerts and things like that that most important part was all approaches and everything we talked about was about evidence based and wasn't clear providing assurances and No. 5 in addition to B and C and include health professionals and academics and No. 6 we felt was good and felt it should be expanded to concert situations as well and was it.

>> SHELLY CHADHA: Thank you, kiddy. Anyone from the group that wants to clarify? Moving on to the next group. Sara, please, you have the floor. Group 2. Can you put on the template for group 2.

>> We identify aspect of clarity and some aspect of revision more significant than just clarity. For example, in relation to statement 1, we thought it was important to specify which standard. H.870 standard and those are another thing or

more general comment that is important to first raise awareness about need of standard.

We were thinking about manufacturer already that were approached by basically did not commit or said they had their own standard.

So we thought, okay. Manufacturer will do it in the moment and this is relevance of this. This is -- I don't know how you want to show this there. I think this is very important.

Point second, it is the fact of -- there is a need to create a training certificate and also the promotion of the certificate, something they can be more specific about that.

There is a point about the 500 venue stuff, and we thought where does this number come from? It looks like one of the numbers that you put and maybe it would be better to say a certain, a bit more generic or be more specific but in a specific way and relation to .3 that is not clearly distinguished and now I don't know if you can check. It is (?). There is clarity about standard and in that case standard H.872 and minor comment, challenge of engaging influencer with big audiences.

Ideally is great and with challenges to reach big audiences there.

In relation to .4, consider or mention educational option by pediatrician and midwives across all levels and systems and thought there are schools and others and think mention to more specific target groups and they may also feel more involved in this.

There is, again, whoever has need for more awareness and (?) For journals and may be a category that is useful but flow awareness.

In general, again, just consider educational as professional including pediatrician and doctors and mid-wife.

In relation to .5 like before why two policy dialogues? Maybe put N dialogue or to say dialogue without specifying.

There might be even be more. First bulletpoint is vague and difficult to measure.

In relation to .6, this is a section that needs a bit more revision and present things on a different level. Some publication are very specific and can motivate a different type of review or research and there is relevant issue that we are missing and point is maybe drafting these as a call for research (?) Can engage the large community and we have an additional point just down -- yes. One important thing on how to engage manufacturer. Meeting them on relevant occasion. For example, congress's event they are there and we believe they have the approach, face-to-face approach is very important. I don't know if I said everything from my group.

>> Anybody from Sara's group that would like to add anything or clarify anything?

Okay. Good. Thank you. Then we will move on to the last group. The group that was in 328 and not sure who was in the group.

>> I will report and not aware of standardized reporting form and is ad hoc and discussed points 4 and 5 extensively and touched on .2 a little. No. 2, one thing that came up coming to collaborating to implementing safe listening measures we felt it was also important to educate designers of spaces not just users of spaces.

Originally point was made from architecture but believe for temporary venues includes sound system designers that should be part of the focus and was mentioned for 4.2 integrating safe listening venue standards into licensing requirements would be good generally to refocus on regulation to encouraging voluntary implementation particularly in sense that it would be nice to

frame venue regulation into venue unique selling proposals like it is done in the standard and encourage people to say we are complying rather than focusing on -- and maybe have a nice logo or something saying we are ahead of our times and are a nice sounding safe listening venue rather than putting so much focus on regulation.

We stumbled over the same thing and confused about meaning of 500.

It has been discussed before, and I shall skip it. .4 confused in beginning what message should be and pointed out that extensive materials should exist and be made obvious to people who want to implement this. Makes task less daunting and is quite extensive material that has been provided by WHO2 was suggested in social media having role models as ambassadors for target audiences to be influencer and force multipliers and coming to certain and curricula schools it was felt in the group it is very important to maybe not add another separate curriculum item but identify synergies.

For example, music appreciation is taught already and make safe listening habits part of music appreciation rather than forcing a health teacher that is not intrinsically motivated to have another thing or extra time or identify parts in biology to talk about hearing physiology in a child's appropriate manner and foster curiosity and so on we felt it would be important to make good materials and sometimes mentioned activities available to teachers and not clear to us what it might mean but was mentioned several times and we were wondering why the -- I'm getting confused. Young children would require different approaches and materials and activities. We felt the digital campaign doesn't include very young children for obvious reasons but should start earlier and be nice to go through primary schools and was suggested going through music curriculum and

primary schools in educational systems is mandatory for everybody and part of the normal curriculum and be one single point of entrance making sure everybody could profit from it and music educators as allies in schools were suggested.

Taking it out of health education exclusively.

As to 2.5, policy change it was pointed out by Raphael, I believe that [no audio] against litigation and be worked around it and something to safeguard your business case. We -- it was mentioned that starting regulatory processes in countries is easier and easier and wider national consensus where numbers should be and don't have to pull numbers out of thin air and point out experience with that and if you meet lots of rejection or say resistance in a country you can say this is how it worked for other countries to encourage people to think about it.

It was pointed out for legislators to focus on reduced burden of the health system through prevention of hearing damage at a young age to the point put a price tag on it and return of investment and burden of healthcare system that is being avoided and material for lawmakers could include some way of I don't know (?) For sure has experience with that and modeling health costs and model prospective savings and for example decline prevention in terms of old age hearing loss and sense of political topic that is discussed in other contexts and might motivate lawmakers to adopt this topic and in any case to avoid lawmakers negative messaging.

>> SHELLY CHADHA: We have your feedback, which is great. If you can point out what is some specifics you want to put. Anyway, we are almost at the end, I think.

>> That is it.

>> SHELLY CHADHA: Great. Fantastic. Anybody else from the group that would like to add or comment or supplement?

Extensive discussions. Thank you, group 4.

Okay. Let's open the floor for your comments.

Mark, it was one from you that I asked you to hold on to.

Please, if you could pick the kickstart of discussion.

>> I forgot it.

>> SHELLY CHADHA: It was about toys.

>> I was wondering why research on toys is not possible. I want to just hear reasons why. You can't measure. It is an important topic I will have to dig into.

>> Group 2; right? Or 3 or whatever.

>> Sorry. I mentioned there might be some contention in the group and some people felt it was really relevant and one thing I heard as well expressed is it might be more difficult for researchers to be funded for one type of study and maybe was new point it doesn't bring new knowledge or exposure levels we know how to make them necessarily -- doesn't change the answer to the question but lowers making feasibility public (?)

>> We had this discussion and I felt it was outside of the rest of the research topic and understood why researchers would say it is not so relevant and pointed out for instance this from Europe with infants and lying in cradles with loud speakers being entertained at high levels turning to loud speakers for extended periods of time could be a problem and is again logically is a problem and not so sure it needs further research.

I would just say certainly it should be stopped but so yeah. That is my point.

>> SHELLY CHADHA: Thank you. We will present some research and some touches on issues of toys and will be an opportunity later to discuss this further.

Any other questions, comments, reflections on this call? Yes, Jeremy. You can use this. You don't have to keep your

hands raised. You are welcome to use this and keep it up so I can see. Go ahead.

>> Interesting question coming from the group I didn't know myself what was intend from those questions and maybe that was said, and I didn't pay attention it would be made public and wow ask for comments are we engraving next 10 years of research by this one exercise and how is the committee process going to work.

>> SHELLY CHADHA: It is not about research alone but committing to whatever we can do. What can I as a WHO represent staff or WHO technical lead working on a hearing what I can do between now and let say 5 years making listening safe to advance goal of listening safe and in past 10 years we made standards and published research and maybe need to commit now to doing regular -- I'm giving an example.

Regular stakeholder consultations or doing targeted outreach to certain manufacturers or professional associations. It is about what can I do to make listening safe?

I as an organization, as a business entity and as an association all as an individual.

Some of the numbers, I think -- I did not also clarify very clearly that numbers there are indicative and take point very well that it shouldn't be 500 or 5,000 or whatever. We believe it blank like we leave dates and so on.

These were examples.

Your feedback was very, very helpful. It showed what was not clear and so on and so forth.

Ultimately, these are meant as examples of what? Let's say you as a researcher would commit to doing and completely take point also that WHO defining research agenda would be useful and that is very useful feedback.

What would be useful or what can you as a researcher commit to do from university X?

What can you as -- as the let's say president or vice president or Chairperson of an association and committee of an association, what can you do to make -- promote safe listening and ensure a safer listening world and what you as an industrial association do?

Maybe commit in the next -- that came to me when I looked at Satiana and Serge. These are examples. I'm not asking you to commit to these things but are examples I'm giving to the next two industry hosts that we give prominent space to safe listening to be -- these commitments and examples that came to be clearly is it needs to be clearly stated these are examples not restrictive and binding and they are not commitments.

Of course we can make these commitments, but we are not asking us to commit to these as a group today. Rather, we will take your feedback and revise it, and we will then open the call and invite you and your organizations and entities to respond to that call. That would be the next step.

I see further hands.

Teresa, you took down your card? Want to take the floor? Colleague?

I want to talk about detailed research we thought was important in group 2 open access repository is a real strength and commitment to use those strong access tools will be important for those with academics to get into and data base repository so that would could be available to meta-analysis and using standardized tools is something that is going to have a significant impact, and we also [no audio] want them to have and refine those tools if they are not having the effect that we want them to have.

>> Thank you, Colleen. Very help. Points? Questions? Suggestions? Reactions? Anything from online participants? What I will suggest as the next steps for this the following that I heard from some participants it wasn't completely clear what they were providing feedback on and completely get that. What I will suggest is we leave this call for commitment with you for a limited period of time. I would say a week. Are you here for most of this week and have to also go back and relax a bit and let's say two weeks and to the end of next week, I would say.

And we will wait for any additional feedback that you have in addition to what you already have given us that is already quite rich.

We await your additional feedback and after next week and whatever additional feedback this we will collate and revise and circulate final call for commitment before we publish it online. Sound like a reasonable way forward?

Okay. Great. Thank you very much for really supporting us in developing this call for commitments.

I hope it will generate the thought process as to what you and your partner organizations and collaborators can commit to in terms of research and implementation and in terms of also advocacy. Do you have -- please make.

>> To build on that could be a thing we think and reflect on that is that everyone in the room probably has their passionate point here and it was lovely for them and to me in call to come back and looking forward to that as well and priority for that will help to inspire others outside of that and have a think about that in the next couple of days as well.

>> SIMAO CAMPOS: Very pertinent point. Thank you for raising it. Great.

You get the first prize.

Moving to the final part of today's agenda. We have discussed about the future. We have discussed also about what commitments we can make. Now we also want to look at emerging issues, and we have looked at already issues around safe listening and we have worked in the past on three areas we discussed creating awareness tools and so on and looking at what it is we are missing and not be blinded by the world or have like blinders on our eyes so that we are very focused on these.

So I will invite Lauren to present a scoping review we have undertaken.

Lauren, you have the floor. Would you like to come to the podium.

>> LAUREN DILLARD: I can stay here. It is okay.

As noted, I will talk about results from a scoping review aiming to identify sources of unsafe listening, particularly focused on young people.

So, also, Shelly also noted this review is not focusing on work that WHO and ITU has published standards on. We are looking to broadly identify sources of unsafe listening not focused on topics listed here on the slide.

Okay. So in thinking about some motivation for the review, it is sort of helpful to frame it by thinking about it through a life course health perspective. One way to interpret this is health related behaviors formed in childhood and adolescence can continue to inform behaviors in overall health and adulthood. Limited research related to hearing regarding to long term behaviors we can draw on robust areas of public health.

For example, a large body of research shows that if tobacco use -- it is more likely to continue into adulthood and have negative consequences on health and reiterates early intervention to promote healthier behaviors and choices and

including those related to safe listening and moving to a broad overview of 53 studies we identified.

First study we identified was published in 1950s. You can see studies identifying sources among safe listening that are continuing to be published until today.

In terms of location of studies we have representation from 6WHO regions and most of the studies were published in the US.

So this slide shows the sources of unsafe listening we identified across all studies in the review and studies that mentioned a given source and I won't read through all of them. You can see the most commonly mentioned sources are recreational firearm use and children's toys that you discussed and things like motor sports and firecrackers as well.

Next slide.

Moving forward into the next portion of the talk, we will sort of zoom in on four of the topics for a few different reasons, first in terms of recreational firearm use there is great opportunity to improve dangers among unsafe listening and among three listed here in -- white noise machines could be opportunities in raising awareness to under changes to device sound -- focusing on a few of the studies on each one of these topics.

Okay. This slide shows prevalence of exposures across all studies included in the review and apologize it is a bit blurry. It shows out of the study populations proportion of people that are exposed to a given source and see about -- over 60% of people were exposed to stereos with small proportional exposed to recreational firearms.

This number was 25%. Next slide.

We will talk more about recreational firearm use and this pie chart shows locations that they were and surprisingly most studies were in UK in North Carolina -- they are focusing for

hunting and target shooting and as expected there are big differences in relation to firearms and young people exposure is about 10% and in US it is 30% and key findings for research showed among a sample of young people using firearms in U is. 3/4 of them began using firearms prior to age of 10 and showing important of earlier intervention and several studies showed inconsistent use of hearing protection and see it is cut off a bit but in the dark red we are looking at people and 60% reported rarely or never using hearing protection and 22% reported using my categories.

And next slide switching gears to talk about children toys and last 75 years of research on the topic.

Toy weapons were brought up as a concern in the 1950s.

You can see they are being brought up as a concern in the 2000s indicating there is a lot of opportunities there for improvement.

Next, we will look at results for studies focused on popular toys that seem generally quite unassuming and may not provide high levels.

Next, we will zoom into a study looking at mean and peak pressure level of 26 popular commercially available toys and divided figure into age groups and peaks and pressure levels for children meant under age 3 and see most toys reach a peak level of over 100 DV and included a picture here that looks like a normal toy we wouldn't necessarily expect to be loud and similar trends looking at one reaching 120DB peak SPL and ages 8 and older similar trends most peak are above 100DB with high approaching 120DW.

Next, looking at study focusing specifically on car stereos and researcher asked -- set car to preferred listening levels and looking at peak sound pressure level and important to note these are factory car stereos and hadn't been modified which

often times they are to -- that could increase the loudness and what we see here is peak sound pressure level exceeds 100DB again. This is the preferred level.

Next slide.

Participants were asked about duration of exposure and to car stereos not ours of unsafe learning and reported on average listened to car stereo over an hour a day. With this information researchers computes average noise dose, which was over 100% and one listener that was at a high level and next is white noise machines if not familiar with them. They are popular devices used to help infants and children sleep and is important because it means exposure to sound from the white noise machines is often for a long period of time. They are often used both at night and during nap times.

Next slide. Results from a study testing both white noise machines as well as white noise phone applications and looking at Macs or peak sound pressure level across devices and see most devices exceed maximum of 80DB. This is important because you can imagine that if children are listening throughout the night they could be exposed for 8 hours or more and one device reached over 90 to be and are white noise machines that you can easily go buy at the store. Next slide.

To wrap things up we are looking at relationships of common sound sources with damage to the auditory system and across over 50 studies there was relatively low research that associated specific sound sources with audio damage and one study recently conducted if representative samples of Canadians and looked at tinnitus and early sign of auditory damage and important condition in and of itself. We see those that reported consistent exposure to a car stereo were 2 times more likely to self-report tinnitus and 12 to 19 year old age group we see similar trends those regularly exposed to power tools and home

and car stereos were 2 times for likely to report continue Tuesday and (?) Were 1.5 times more likely and interesting in the study we didn't see relationship with recreational fire use and reported tinnitus and there was study conducted 12 and 19 year olds in the United States, and those that used more firearm were likely -- compared to those that were not and this was in a sample of people age 12 to 19 years old.

Okay.

A bit of a delay there and in wrapping things up this review identified sources of unsafe listening common to young people there and listed in the red portion of the slide. Firearms we didn't look at sound level but children noise and white sound noise both that are commonly used and showed research showed relationships of sound exposure with auditory damage and this wasn't present in ages for children under 11 years old and not all research consistently shows associations with auditory damage and could be explained by several factors in differences way sound sources measured in study population differences and long time needed to detect associations.

Next slide.

Okay. When thinking about looking to the future. Part of the reason that WHO was interested in conducting this review was to see what was under other recreational studies and studies not developed for and life course health perspective bringing it back to that demonstrates need for early intervention to reduce harmful listening practices that could influence long-term health behaviors and with that I will thank you for your attention. We are saving questions to the end of the session.

>> AUDIENCE: [Applause].

>> SHELLY CHADHA: Thank you, Lauren, for the comprehensive overview and Jeremy you have your hand up. Is there a question

you want to ask for clarification or comment and please do so for a discussion.

>> Thank you very much. I'm glad you still distinguish firearms and children toys. This is good as we speak. That being said I was surprised by the calculation and maybe I misread that and did you calculate dose equivalence exposure from peak DBA value?

You wouldn't dare to do that?

>> Different part reported in the study, and we reported key findings from each study and it wasn't that that was used.

>> When you used -- sorry. When showing exposure and duration of the toys you made that calculation and one slide and took peak values and average over time and would be wrong. You did not?

>> No.

>> Okay. Cool. Thanks.

>> Thank you, any question for clarification for Lauren? Lydia?

>> Thank you. I would like clarification for white noise what are we talking about? Something I haven't come across children are new adults and new toys they are having.

>> Common sound machine and device generating a sort of calming noise that many parents use to help kids sleep throughout the night and white noise machines is not necessarily a completely accurate term. These machines can produce other types of noise as well.

They include other settings like rain drops and things like that. The issue with them is exposure is for such long periods of time and infants as well as very young children.

>> Clarification for white noise since we sought it I will continue that line of questioning and curious in addition to

sound pressure level if they discussed any other aspects of habituation and dependency on it. That is another issue. We define safe listening in terms of intensity levels because of damage to the cochlea and other types of ways sound can be unsafe and is lots of concern over use and dependency over maskers for children growing up dependent on them to go to sleep and is there mention of that or something we should consider as well.

>> I think it is something that should be considered and think it applies to sort of all of the sources unsafe listening not only white noise machines and studies mentioned it not particularly in terms of hearing and research on white noise machines shows it is quite beneficial for sleep and downsides of white noise machines are rarely mentioned and a few studies really mention it in terms of hearing.

So I -- there is -- there is some research showing there is a sort of dependency.

It is not necessarily framed as negative from what I have seen in terms of hearing if that answers the question.

>> SHELLY CHADHA: Thank you Lauren and for questions for clarification and before we have a further discussion we would like to -- there is another consideration we would like to discuss. It is not strictly recreational but increasing exposure we all have to digitally treat sound as a result of working online and also attending various events online, and we attend talks on Zoom and even concerts and so on.

Is there something impacting our ears in hearing over time and Professor Paul Avan here today with us is leading in this research in our field and Paul Avan from university of Clermont will give insight into his research and correct me if I didn't have your university right professor Avan.

>> Okay. Good afternoon, everybody. I thank you very much Dr. Shelly for inviting me and indeed are emerging issues if you can perhaps -- it is not particularly intensely manipulated in terms of dynamics in terms of intensity and explaining briefly why in a moment.

We have received complaints as a group of researchers we received complaints with users signaling listening to this kind of sound might be uncomfortable after a while and we try to examine this issue and mainly compressed intensity.

Next slide shows you the reason that compression is so widespread at present and natural compression is (?) By cochlear to make dynamic range of sounds to range of going to -- these dynamics and when cochlear doesn't work properly hearing aides or (?) Try to replace process by exerting compression with similar range that cochlear applies and for the last few decades and particularly last few years process heavy speech and legs for impression and so-to-speak to improve quality and broadcast music in terms of possible interference with external noise and why compression is good for this purpose.

It is because when you use electronics to modify dynamics of target signal it becomes more salient. There is no longer short-time window in which external background noise could sneak in creating havoc. Goal is to cancel quiet windows when they are even 100-millisecond long in order for noise to be eliminated.

Consequences are apparently some quality improved and target sound that is purer and perhaps is a reason that auditory fatigue is enhanced and this shows why compressed sound looks like and top row shows uncompressed sound and you see quiet windows and every time sound goes down there is a quiet period of time which noise might take over and these compression

windows and therefore sound is always at top level and noise can no longer be heard and looks nice.

Next slide shows you it results in a big change in the distribution of energies and you have distribution for energies for piece of music not compressed on top and compressed on lower diagrams and all of the silent parts are pushed towards higher energy distributions and this may be at origin of fatigue and proving this concept was valid was to use animals not humans and had a hunch it could be (?). We expose them 1 shot to 4 hours exposure to amplify music and use standard of French regressional sound and decibel 8 can be used whether compressed or not compressed doesn't according to (?) And research where there is following next slide please. Results were that -- guinea pigs can be considered as having same frequency range as humans and tested awake and very easy to monitor online and not only cochlear but auditory neurons also.

We use them invasive methods that are clinically available that could be used in babies and guinea pigs were not at all distressed by our measurements and could be performed before the exposure just after and every day until 1 week after the single exposure.

What came out in next slide as far as cochlear was concerned, nothing happened and regressional exposure French (?) Is safe even though 4 hours and 2 decibels seems very loud this is traditionally what you receive during concerts, et cetera.

Good for that. Otherwise when measuring reactions of neurons we saw that exposure levels were exactly the same for expressed music and -- non-compressed music coming back to 1 and former capability in terms of protective reflex of (?) And keeps being normal for the next week for animals was supposed to compress sound and wasn't the case and observing recovery and

fatigue is protracted not only a few days but on -- almost a week.

The question is whether it is fatigue. That say problem. So next slide.

Now we try or look at synapses and histology and couldn't find damage and only idea that fatigue is protracted and we go on and now idea is to go to humans and perhaps (?) But perhaps loud speech levels like 70 or 75-decibel for a few hours and next slide shows you what happens we look at how song looks like when stored in repository and distributing I call (?) Music and can be classified in how many (?) Periods are respected from left to right and silences increasing in duration and compression decreasing bottom to top mid frequencies is larger emphasis on low frequencies is louder and this means a sort of heat map sounds can be identified not only metal music but classic music depending on post processing and next slide shows you actually it is not shown but when compressed files and non-compressed files people perform very poor and purely by listening they can't make any difference only (?) And doesn't come forward when listening for long periods of time you can see tendencies with more sounds with microperiods to be comfortable than times that are less comfortable.

People willingly show themselves and in E slide shows what we would like to do now conclusions are digitally manipulated sounds don't follow normal rules. Second, fatiguability is measurable and objective not only subjective. It is measurable on acoustic reflex, for example, and not standout geometry and resulting order is hidden to stand out with work medicine measurements and people can't be identified experiencing more fatigue and would like to finish with two caveats fatigue doesn't mean unsafe or damage. It means self-reported (?) And new sounds and previous presentation showed you imagination is

boundless to create new sounds even for children. Even for sleeping babies.

And so what new standouts could we apply?

It was easy and know it was a concern and new sounds how will we expose ourselves nobody knows and people exposed due to job and exposed to compressed sound and we have results that may feed our reflection as to potential silence of newly processed sound. And with that, I would like to thank you for your attention and ready to answer questions and would like to thank my team for think precious collaboration. Thank you very much.

>> SHELLY CHADHA: Thank you, professor Avan. Any questions for professor Avan? Kelly?

>> Yes. Do you know of any descriptors subjective complaints about hearing speech and noise and dual sensory and multi-sensory deficits as we know that people can have normal audiograms and noise exposure and have other things like neuropathy and other systemic changes that might contribute?

>> Well, actually the definition in Europe meets what is observed here at least in guinea pigs even though synapses look normal and very way how the auditory system functions in the upper part of the brain stem was objectively abnormal and what about humans exposed to those doses of these kind of sound is (?) But every day people who professionally work on such platforms and what about it? We are conducting work in which we would like not only to measure preference or absence of acoustic (?) Reflex and we are now striving to measure (?) In this context and present techniques are not calibrated and have to do lot of work to comparing in exposed people and real genuine hope is to hopefully be able to dig deeper into this issue. We totally disregarded these last few decades, I think.

Thank you for arising these issues that are increasingly important and particularly if there is a COVID crisis there is a problem with multiplication of remote conferences.

>> I have a question. Imagine compressed sound is more negative with more potential to create hearing loss and other consequences that is different from non-compressed sound or less compressed sound. How can we regulate that?

It would be difficult to identify sound level of uncompressed sound and should we just say you can no longer compress out? What is action point? Doesn't seem that easy.

>> Thank you, Mark, for raising this question. It is complex. Nobody would like to suppress and forbid use of compression, and it is not very useful and such could be held in the absence of sound regulating systems. Discussions without effect and without impossible interferences amongst speakers and likewise people type minutes of meeting it would be a terrible cacophony, and it is good and derived by natural process and idea is that up until now compression has been used with no limits.

I could do measurements in some places that we know all very well and where compression was really push today the maximum and means 3 decibels and three smallest levels and maximum ones and I showed you example and didn't have time to elaborate but with a song by singer Adele from United Kingdom. It was possible using compression to reduce her dynamics to 3-decibel, which is small and out of proportion with the goal of this operation.

Actually, we were surprised people didn't make difference between good and bad version.

We would very much like to prepare applications in which would be easy to plot in real-time amount of time during which compression is really excessive.

That is only a starting point.

>> SHELLY CHADHA: Thank you, professor Avan. And see one more question and will take general comments and a few comments if you want to. We will have time to reflect on this research and so on also in the next 2 days when we go into thematic discussions.

That will be time also to take this on board.

You are on.

>> Professor I understand your hypothesis is that negative effects are mitigated because of natural occurring of microsilences, which in context of video conferencing and how we communicate now sounds perfectly naturally plausible and wondering if same negative effect would be applicable to live music which there is virtually no micro silence to be expected music is a way to not allow that.

My question is do you expect there to be same amount of difference? Would it enable us to develop hypothesis what is preventing adversary -- adverse effects to make that more generally applicable also to music and live music.

>> Very good question and bringing comprehensive answer to your request would be complex and will Ingres think and did pilot program and used song Adele I miss you easy to find on YouTube, et cetera. We used another file and obviously the score was very different in that according to Adele in order of frequency bands are all the time saturated with sound so-to-speak and spectrum is always very rich and in a way a little monotonous. In this other piece for which we push it to the maximum music jumped from one octave to the next it was within one octave band there were many micro silences and what matters for auditory system. It splits sound into all these different frequency bands.

In this particular case, guinea pigs experienced no fatigue.

So the score is very important in terms of music because some scores can jump from low to mid to high frequencies and in the meantime some are very quiet and in system there I spent time to recover and clean up what (?) Rights have been produced and for other songs it is impossible and always every time and every band is (?) And important feature and complexity of density and my guess and to check that we have to perform many different tends with different kinds of music.

>> Thanks.

>> SHELLY CHADHA: Thank you, professor Avan. Any other questions or thoughts or what other issues about hearing loss and so on and so forth? Anything we would like to raise?

>> I think white noise device for baby is very real. White noise is particularly good at filling up all kinds of silent windows and if I had a baby wanting to use a noise to soothe it I wouldn't choose white noise but modulated noise or of a scale or like a waterfall or something like that that would be efficient and easy to implement.

>> SHELLY CHADHA: Thank you for sharing that perspective. Very helpful professor Avan.

I would like to -- we have one item on the agenda. See no other questions. If questions or comments let me check. Any questions or comments online?

No.

I think I like auditory system and the -- the reflects auditory reflects and we are a bit fatigued now at the end of a long day but thank you. We appreciate very much your intervention in joining us at this time in the evening remotely and look forward to further outcomes of your research to better

understand how human years respond to digitally treated and expressed sound. Thank you.

Also to Lauren. [No audio].

How we are going to structure the next 1 day and a half but think that I see that we are all drooping now and ready to make a run for it. So what I suggest is that we come back here tomorrow at -- well, just before 9 if you can. We will start sharp at 9 and give instructions or give overview of the next 1.5 days and thematic groups that will be working and how we will work on these and when we will come back and so on and so forth and tomorrow morning it will take 15 minutes and Carolina will lead you through it and best chance of retention is tomorrow morning rather than today and let's do that and see you all hopefully many of you will join the contributory dinner tonight if you wish to join, you are very well come. We will -- do we have the thing printed? How are we sending information about the -- we sent last night information about the restaurant and the menu, et cetera.

We are projecting it on the screen, and it is a place called carne and in the old town and booked 7:30.

If you wish to participate but didn't sign up let us know. We will get proper numbers to find a place to sit there. With that, thank you very much for a very interesting day and handing to Simao for last words of the day.

>> Quick comment tomorrow on screen signs will see assignments for whole day but start in this room just to be very clear. Come here and then you will be told how it will run. One room we might change, and we are negotiating that because the room we had originally planned G3 is also know as off. It is hot these days with what is happening in Geneva, and we had 328 today to use and is not available in the morning and negotiating to have it available in the morning and we will see

and will tell you tomorrow the whole story and forewarned about it for this group C and other groups is okay. All right. Thanks very much. Enjoy your dinner.

>> SHELLY CHADHA: Thank you, everybody.

Word for online participants those that are there, join group A tomorrow morning first before you join your respective groups. Please join group A that is the plenary room. Please join group A first then you can -- you will be directed to the other links. Please join group A to start with. We will send out also that information to you. Thank you.

(Session ended at 17:50 p.m. CET)

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