International Seminar 2022 on

Approach to keep healthy life for persons with disabilities: Prevention of lifestyle-related diseases and health promotion by physical activities

February 19, 2022

National Rehabilitation Center for Persons with Disabilities
Japan

WHO Collaborating Centre for Disability Prevention and Rehabilitation

Program

Time & Date: February 19th, 2022, 13:30-16:00 (JST)
Conducted via Zoom

13:30-13:35 Information for audience

13:35-13:40 Opening Address
Koichi Mori, President, National Rehabilitation Center for Person with Disabilities (NRCD), Japan

13:40-14:00 Presentation 1, Keynote Lecture
"Towards disability inclusive health services and systems"
Masahiro Zakoji, Technical Officer, Health Workforce Policy and Health Care Delivery, Health Policy and Service Design, Division of Health Systems and Services, WHO, Regional Office for the Western Pacific, the Philippines

14:00-14:20 Presentation 2
"Disability inclusive health services and information"
Cathy Vaughan, Associate Professor, Melbourne Social Equity Institute
Co-Director, Centre for Health Equity, Melbourne School of Population and Global Health, The University of Melbourne, Australia

14:20-14:40 Presentation 3
"Health promotion for persons with disabilities in Thailand: what we have learned from the community-based rehabilitation programs"
Sirinart Tongsiri, Vice Dean, Faculty of Medicine, Mahasarakham University, Thailand

14:40-14:50 Break

14:50-15:10 Presentation 4
"Simulan Na! Beginning and Continuing the Road to Healthy Lifestyle for Persons with Disabilities in the Philippines"
Frances Ann Carlos, Consultant, Department of Rehabilitation Medicine, University of the Philippines, Philippine General Hospital, the Philippines

15:10-15:30 Presentation 5
"Incorporating exercise into daily activities prevents lifestyle-related disease and promotes health: Development and practical experience of health promotion programs"
Yukiharu Higuchi, Chief Exercise Therapist, Remedial Gymnastics, Center of Sports Science and Health Promotion, NRCD, Japan

15:30-15:55 Discussion among speakers, Q&A
Facilitator: **Koji Tomiyasu,** Director, Center of Sports Science and Health Promotion, NRCD, Japan

15:55-16:00 Closing Address
Nobuhiko Haga, Director, Rehabilitation Services Bureau, NRCD, Japan

Languages: English and Japanese

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Opening Address

Koichi Mori, President, National Rehabilitation Center for Person with Disabilities (NRCD), Japan

Hello, everyone. Thank you for attending the International Seminar of National Rehabilitation Center for Persons with Disabilities. This center is one of the designated WHO collaborating centers. As one of its activities, we hold an international seminar every year on themes related to persons with disabilities or disability prevention and rehabilitation.

This year, the seminar's theme is "The approaches to keep healthy life for persons with disabilities," with the subtitle is "The prevention of lifestyle related diseases and health promotion through physical activities." We have invited five specialists from the Western Pacific and Asia to talk about their original views and efforts to improve the health of persons with disabilities.

As you may have noticed, the word "Inclusive" comes up in some of the titles of the presentations. It stands for the notion that all the people, with or without disabilities participate together in the society. It is a concept that has belatedly come to the public's attention in Japan since the Convention on the Rights of Persons with Disabilities was ratified in 2014.

Sports of persons with disabilities have finally become known in the Japanese general society due to the Tokyo Paralympic Games last year. However, they were held on different dates than the Tokyo Olympic games. Similar scheduling will repeat for the Beijing Winter Olympics and Paralympics, which is not inclusive. This will be aligned finally in the Paris Olympic and Paralympic Games.

On the other hand, athletes who compete in the Olympic Games or Paralympic Games are cutting it very close. I am not talking about doping here, but they train themselves to the limits and sometimes get injuries. It is debatable whether exercise helps maintain good health in these conditions. Today's seminar is not about such top-level athletes, but about how ordinary people with disabilities can improve their health by increasing exercise and activities. The current situation in the world and this western Pacific region is that the inclusive environment is not yet sufficient for people with disabilities because of access barriers not only to exercise but also to health services. I expect that you would hear analyses and suggestions about this today.

The first keynote speaker will be Dr. Masahiro Zakoji, who is the technical officer at Health Workforce Policy and Healthcare Delivery, Health Policy, and Service Design Division of Health System and Services in the WHO Western Pacific Regional Office, and has wrote papers on COVID-19. He was previously in charge of community medicine at the Saku General Hospital in Japan. He will be talking about "Towards disability inclusive health services and systems," introducing WHO's analysis and measures on the barriers to access health services facing people with disabilities around the world.

The second speaker will be Dr. Cathy Vaughan, who is associate professor of Melbourne Social Equity Institute, and co-director of Center for Health Equity of Population and Global Health of the University of Melbourne in Australia. She has studied fairness and discrimination in the health of persons with disabilities and different genders. Her presentation is titled “Disability inclusive health services and information.”

The third presenter will be Dr. Sirinart Tongsiri, who is Vice Dean of the Faculty of Medicine of Mahasarakham University in Thailand. She is working to promote the health and activities of persons with disabilities in the local community. Her presentation is titled as "Health promotion for persons with disabilities in Thailand.”

After a short break, we will have a fourth speaker Dr. Frances Ann Carlos, who is a consultant of the Department of Rehabilitation Medicine of University of the Philippines and Philippine General Hospital. Her presentation is titled as “Simulan Na (Start now)! Beginning and continuing the road to healthy lifestyle for persons with disabilities in the Philippines,” which would inform us of the status of physical activities and efforts of their promotion in the Philippines.

The fifth and the last presentation will be from this Center. It is rare in Japan but remedial exercise therapists are involved in rehabilitation and health promotion in our Center Hospital, through creation and execution of exercise menus tailored to the characteristics of individuals with disabilities. Mr. Yukiharu Higuchi, who is the Chief Exercise Therapist in the Remedial Gymnastics Department of the Center of Sports Science and Health Promotion of NRCD will talk about “Incorporating exercise into daily activities prevents lifestyle-related diseases and promotes health: Development and practical experience of health promotion programs.”

If time permits, we would like to have a comprehensive discussion session with all the speakers. If you are a participant, please attend to the final discussion. We are excited to hold this international seminar today, and would be extremely happy if it could provide you with ideas and hints that could help create an inclusive environment with or without disabilities that would promote health through physical activities. Thank you.

Towards disability inclusive health services and systems

Masahiro Zakoji, Technical Officer, Health Workforce Policy and Health Care Delivery, Health Policy and Service Design, Division of Health Systems and Services, WHO, Regional Office for the Western Pacific, the Philippines

Good morning, good afternoon and konnichiwa. Thank you very much again Dr. Mori for organizing this very important and interesting seminar.

Today, I like to start by speaking briefly about our WHO three billion targets by 2023, which is actually just next year. So we are aiming to achieve one billion more people benefiting from universal health coverage and one billion more people better protected from health emergencies. It was decided prior to the COVID-19, but now it's clear that no one can doubt the importance of the inclusion of those with the disability, into the health emergencies as well. And one billion more people enjoying better health and well-being, which is actually I understand the main topic of today's seminar.

I just like to highlight that it's estimated that over one billion people across the world are considered to have some sort of disabilities, which translates into one in seven. And it doesn't necessarily mean that people with disability do not have similar health needs to those without the disability and everyone, including I or including you will experience some sort of condition of the disability across our lives at some point of our lives.

Actually, I am also a father of a seven-year-old girl who is in my arm and suffers from cerebral palsy. And she's been with me when I was working in India and throughout the COVID-19. And her school was the first one to close because of the lockdown. And she's been at home for the last two years without access to adequate educational opportunities. This represents the vulnerability of those with disabilities. And this is exactly why we always cannot stop thinking about the inclusion of those, all the people into the health services, as well as other services as a whole.

And just to reiterate across the Western Pacific region, but not only for the region, but also across the globe, people with disabilities tend to experience poor health outcomes than the general population and report a higher incidence of obesity, smoking and physical inactivity and face a wide range of attitudinal, physical and systematic barriers when they attempt to access health care or other social services.

Let's take the example of healthcare. Are we, or are you aware of the services that are accessible to you? What experience do you hear from your peers and how can you get out of your house and do you have money to pay for the service? Can you afford that? Do you have physical transportation assistance from your place of living to the place where you expect to get the service? And are they equipped? Is the facility equipped with the physical assistance for the people with the disability to get into the facility? And so many of those different types of layers of barriers exist in front of people with disability.

And I also like to share one of the recent global surveys on the disruption of the essential health services across 93 countries, which was conducted in November to December, 2021. And as you can see, primary care or rehabilitation services, community care, those were most frequently disrupted, which means that they were not provided because of the COVID-19. Those were the most prone services compared to other essential health services.

So those are the background and outset. And I would like to speak a little bit about how we are trying to support our member states as the WHO. For one, we continue to promote the inclusion of the disability as a component in national and sub-national health programs. And two, we provide updated evidence - of course, with the support from the experts like those we have today and in collaboration with those frontrunners, we have generated the evidence and analyzed and created recommendations related to the disability inclusion in the health sector and beyond across the society. We also work across other international organizations, and there is a United Nations disability inclusion strategy.

And as many of you may know that this year, WHO is mandated to produce a global report on disability and health. We are hoping to conduct a regional consultation hopefully in May or June in the Western Pacific region as well. So we really count on your great participation and contribution to those occasions so that we can maintain the current momentum to make all of the health and other social services accessible to a larger population.

And just coming a little bit closer to the region, we have four priority areas in the region. 1: Health security, 2: NCDs and ageing, 3: Climate change, 4: Reaching the unreached. Those are closely linked to the inclusion of persons with disabilities. It’s clear that NCDs and ageing or reaching the unreached, they are exactly talking about those with the disabilities, and those who are vulnerable, but we have also witnessed that the health security cannot be achieved without reaching those with disabilities, and it’s also clear that those with the disabilities are very much prone to the impact of the climate change as well.

So in short, what we are aiming to achieve with the member states in the region cannot be achieved without the inclusion of all the people. And that brings us back to the point that everyone actually experiences some sort of disability in our lives. So a society, which is inclusive to those with disabilities is a society which is inclusive to all of us. So that's the society that we want to envision for the future in the region. And we have one regional framework on rehabilitation that was published recently. And it covers for sure the priorities and actions across service availability, quality governance, financing, workforce, data research issues, those with action points for the member states, as well as WHO.

I also like to take this opportunity to introduce a very practical toolkit that is going to show you how we can make the health services more disability-inclusive. And I understand that Dr. Vaughan will also speak to this a little bit deeper later. I will not go into the details, but I like to remind you that this is going, and I hope that this is going to be a useful tool for you to integrate the disability-inclusive frame into your areas of work.

I think I should stop here once and I really like to thank the organizers for this great organization as well as the opportunity. And I particularly appreciate the support from the interpreters as well

as those who are making the subtitles. It's amazing that we have so many people behind the scene that are making this seminar accessible to the as largest populations as possible. So thank you very much. And I'm really looking forward to listening to great experiences and lessons from the experts and frontrunners from four countries. And I like to hand it back over to the facilitator. Thank you very much.

Disability inclusive health services and information

Cathy Vaughan, Associate Professor, Melbourne Social Equity Institute

Co-Director, Centre for Health Equity, Melbourne School of Population and Global Health, The University of Melbourne, Australia

Thank you very much for that introduction. I would like to begin by following the custom in Australia of acknowledging the elders of the land that I'm calling from. So I'm calling from the land of the Wurundjeri people of the Kulin nation, and they are the traditional owners of the land that I live on. So I would like to pay my respects to their elders, past and present. Thank you.

I will just share my slides and just into the right view. Thank you. And thank you very much for that lovely introduction and setting the scene for us Dr. Zakoji. It lines very well with what I had wanted to cover in this presentation. So why do health services and health promotion programs need to be inclusive of people with disability? So as Dr. Zakoji had said, people with disability need access to health services for all the same reasons as people without disability.

So people with disability need to access to childhood vaccinations, they need access to COVID vaccinations, really important at the moment, and something that has been a major challenge in many countries to ensure that COVID vaccination programs include people with disability. People with disability need access to contraception and family planning and young people with disability need access to sexual health promotion and education programs. Older people with disability need, well, everyone needs access to information and services to prevent non-communicable diseases, and also to treat them when they arise.

People with disability also need treatment of all the regular illnesses that everyone has. And importantly, people with disability need access to palliative care, just the same as people without disability. So that's the first reason that our health services need to be inclusive, is that people with disability have just the same health needs as people without disability. But people with disability may need additional health services and have additional reasons for accessing healthcare. And these may be related to their disability.

So for example, we know there is a very strong two way relationship between non-communicable diseases and disability. So that people with disability may be more likely to develop or acquire a non-communicable disease because they haven't been offered access to prevention services. So for example, women with disability may be more likely to go on to develop breast cancer or cervical cancer if they weren't included in screening programs that were offered to women without disability, so to every, all the other women in their community.

People with disability may be more likely to develop stroke or heart disease if they're not supported with exercise and information about diet. If they have say a mobility impairment, and this is hampering their ability to exercise. So it's important to think of ways to make exercise inclusive to try and reduce obesity and the risk of other non-communicable diseases from that.

But vice versa, we know that many non-communicable diseases can then give rise to disability, whether that's the after effects of a stroke or amputation associated with diabetes and other limited mobility following heart disease or ischemic heart event. So there are many reasons that there's this strong relationship between disability and other health conditions, which mean people with disability have very specific additional health service needs.

So despite this really very clear need for health services, people with disability face a range of significant barriers to health services. These barriers include attitudinal barriers, physical barriers, communication barriers, and financial barriers. I'll just talk about the first one. Attitudinal barriers can sometimes be surprising. When I'm speaking to health workers, health workers think they have a very positive attitude about delivering health services. They're passionate about health promotion and disseminating health information. But often betray quite prejudice attitudes towards people with disability or assumptions that are based on misinformation or ignorance.

And so I've often worked with sexual and reproductive health service providers, for example, who think that women with disability don't have any need for gynecological services, don't have any need for family planning services, and are often quite surprised when women with disability are able to get pregnant and have children and have the same antenatal and postnatal care needs as any other women. And so that attitude, that assumption that people with disability are asexual, which is completely untrue, is a major barrier to health services.

Health sort of service providers can also sometimes be quite discriminatory in their behavior towards people with disability, being unwilling, to make reasonable accommodations in their services to ensure that they're inclusive of people with disability. So for me, attitudes are absolutely key to address in ensuring that people with disability can access health services and information.

Another key barrier is physical barriers. And as Dr. Zakoji outlined, this can be included the transport options to even get to a health service in the first place. So is there accessible transport or are our health services located where people can actually physically get to them? And then when they arrive at the surface, can they get through the front door? So this is, yes, it's about ramps, but it's also about the width of doors. It's also, it's about not having a pile of shoes in the doorway that is an obstruction to people with the mobility impairment getting through the door. But other physical barriers, that health services that are often forgotten are accessible toilets.

So many health services in our region have quite long waiting periods. You might go to a health service and have to wait for one or two hours, or sometimes longer to see a health worker or a clinician. If you are having to wait a long time at a health service, but you know that you won't be able to get to the toilet from the time you leave home till the time you get home, because there's no accessible toilets on the way or at the health service itself, that can be a major barrier to actually going along to seeking healthcare.

Other barriers in health services that are physical can be uneven surfaces or steps that are unclear, especially for people with visual impairment, where there's not clear marking of where the edges of steps are.

Sometimes people with other types of disability experience barriers associated with communication. So people who are deaf or who have a hearing impairment, who are hard of hearing can find it very difficult to express what they need and hear the information that they require from health service providers. So it's in important for health services to think about can they access a sign language interpreter, for example, if they need to, if the person that they're trying to provide services or information to, doesn't have access to someone with them who can interpret for them.

It's also about signage and layout of health services. If it's dark and there's poor lighting or poor signage, people with visual impairments can find it very difficult to get to the services that they need. And I would include in this communication type area is that sometimes our health services are pretty chaotic. They can be noisy, they can have lots of bright lights, they can have people rushing about everywhere, and that can make them very difficult to access for people whose disability means that they don't respond well to excessive stimulation. So for example, people with autism spectrum, spectrum disorder or other conditions, which mean all of that stimulation makes it very hard for them to be in that space.

And importantly, financial barriers prevent people with disability accessing health services, all across our region. We know that there is a strong association between disability and poverty. And so if people with disability are not supported, whether that's through voucher systems or health insurance schemes, or other social security types of benefits with financial support, then that can be a barrier to them accessing services and can mean that health conditions don't get treated until sometimes they're quite serious. So these are important barriers to health services that are experienced across our region.

So what do we do about them? There's a lot more information in the tool kit that Dr. Zakoji highlighted, but I'll just speak to two ways that we can deal with providing health services to people with disability and WHO recommends this twin track approach to providing health services.

So yes, it is appropriate sometimes for there to be disability specific projects or initiatives. So that might be things like mobile outreach services that go to communities to try and bring services to people with disability, rather than expecting them to come into the service, especially when we know that there is often not accessible transport in people's communities. It could be disability specific projects. For example, by providing particular communication to people with disability, it might be campaigns to try and ensure that all people with disability have had their vaccinations for COVID, for childhood vaccinations, for example.

But in addition, all of our health services need to be inclusive. So it's not just good enough to just have disability specific projects. We also need all of the services that all of us access for our healthcare to be inclusive and accessible for people with disability. And so when you bring those two things together, it means that people with disabilities can access health services and information on an equal basis with others. And this would be in accordance with article 25 of the convention on the rights of people with disability, which the countries in our region have largely signed onto. And therefore the governments have made this commitment that they are going to ensure access to healthcare for people with disabilities.

So you might ask where do you start? And sometimes health services that we have worked with are a bit overwhelmed because they think, oh, this building was built 30 years ago, and it doesn't have a ramp and it's not very accessible and I don't know what to do about that. And it's going to be too expensive, but actually the most important place to start is with attitudes. And so working with disabled persons organizations in your community and countries in this region, there are fantastic disabled people's organizations who can work with you to try and address the gaps in services, and what opportunities there might be to address barriers.

People with disabilities can be trained to be fantastic trainers themselves. And in work we did in the Philippines with women with disability, all of the training we delivered to health workers was done jointly with women with disability and having them, those women in the room telling their own stories of discrimination and prejudice was very powerful in shifting the attitudes of health workers who didn't realize that they were being discriminatory or didn't quite believe it when we said that there was a lot of prejudice amongst health workers until women were able to tell their own stories.

So working with people with disability to address those attitudes, negative attitudes and discrimination, but also to work with people with disability to identify what knowledge and skills health workers need, because health workers often haven't had any training at all in relation to disability. And so it can be quite panicked sometimes in how they might go about providing good quality care to a person with disability. So a lot of my work is in sexual and reproductive health, and sometimes health workers who provide sexual and reproductive health services don't know, they're anxious about providing services to a woman in a wheelchair, for example, or with someone with severe mobility limitations about how do I do this?

But actually there are very practical skills that we can provide to health workers about how they can do an internal examination for example, of someone with a significant scoliosis of their spine. These things are doable.

People with disabilities are also very valuable as experts in reviewing health service policies and practices, because they will have that lived experience that provides insight into where there might need to be changes in policies and practice. So this can be in relation to things like the financial barriers that people experience at services. It might be that in a country you have a card or some other way of identifying people with disability that should mean they get priority access to services, but in practice, people with disability may well be able to say that doesn't really happen. And here are all the barriers I face in trying to get to actually access the services and information I need.

So starting with attitudes goes a long way to then shifting all of the other barriers that I've talked about before, because once you've changed people's attitudes and they recognize and are really committed to upholding the right of people with disability to access healthcare, then they can be some of the best advocates for disability inclusive health,

The next step, and something that can be done easily and reasonably cheaply, it's not as expensive as people think, is addressing physical barriers. So certainly when new buildings are being built, they should be built following universal design principles that promote the design of

facilities and services that are accessible to anyone, whether they have a mobility impairment, a sensory impairment, whether they have intellectual disability or a disability that means that they can't cope with a lot of noise and stimuli. These things can be dealt with in the design of facilities and buildings.

But it's also possible to retrofit older buildings. Not all things can be fixed cheaply and easily, but some things can be by putting in things like ramps, railings, grab rails in toilets, stools over the seats of toilets to make sure that they're a higher height and potentially getting things like height adjustable examination couches in clinics. So that someone who might be able wheelchair user, for example, or have some other mobility impairment is able to actually get onto the couch to be examined for their health condition.

And the best way to identify the physical barriers in a health facility that you might need to overcome is to do an audit with people with different types of disability, by walking through or wheeling through or trying to find your way when you have a visual impairment through a facility with the facility manager. And so in the tool kit that Dr. Zakoji referred to, we give an example of a checklist where you might have three or four people with disability, with different types of disability, going with you through a service to try and specifically look at the barriers at the service. It might be that the reception counter is too high, or it could be that the attitude of the security guard puts people off and prevents them from coming in. It might be about the toilet not having a grab rail so that people can't get on and off the toilet. So there's lots of very practical things that can be done relatively cheaply to address those kinds of physical barriers.

When thinking about communication barriers, are the information materials that you have available, available in a range of different forms in plain simple language with pictures that are accessible to people who might have difficulty hearing or speaking or reading or writing or understanding. And this is where a partnership with disabled people's organizations is very valuable in terms of access to sign language interpreters and other communication specialists.

But also thinking about the pictures in your health promotion campaigns, do they include images of people with disability? Are they included in how we think about and see our population? And are the staff in the facilities able to adapt their communication to be inclusive so that everyone, of everyone that they see who comes through the door in their health service, so not using complicated language with lots of jargon, but speaking clearly and directly to people with different types of disability.

So I will finish here, but this is the tool kit that Dr. Zakoji referred to. When I developed the slide, the website still wasn't available, but it is now. So please do feel free to check out the tool kit that also gives information about inclusive health information system, rehab services, and importantly for this region, health services in emergencies. Thank you very much and thank you to everyone behind the scenes for organizing such a smoothly run seminar. It’s terrific.

Health Promotion for PWDs in Thailand: What we've learned from the CBR program?

Sirinart Tongsiri, Vice Dean, Faculty of Medicine, Mahasarakham University, Thailand

Thank you very much. And thank you very much for NRCD for having me today. Let me introduce myself again. My name is Sirinart, which is quite long. So just call me Siri for short. My background is a medical doctor and I was trained to be specialized in physical medicine and rehabilitation. At the moment I'm working at the Faculty of Medicine, Mahasarakham University, which is located in the Northeastern part of Thailand, one hour from Bangkok. My place looks quite far, but by my location, I am very close to community. So I think I have learned a lot from persons with disability who are living in community. Listening to the presentation of Dr. Zakoji and Dr. Vaughan, I have learned a lot already. And I think I can identify my works with the presentations. And I think my presentation contributes or supports what Dr. Zakoji and Dr. Vaughan have presented. So I would like to share my screen.

So my presentation today is the health promotion for persons with disability in Thailand and what we have learned from the CBR or community-based rehabilitation program. The aim of this presentation today is not only sharing our experiences, but also we would like to express our concerns in these issues as well.

At first, I would like to touch on the definition of health promotion and the benefits for persons with disabilities. I think this is the same as our previous speakers mentioned, and also the same as our audience understand. But I would like to repeat it again that this is our operational definition about health promotion.

Then I would like to share with you what we have found when we conducted a community-based rehabilitation project in Thailand. And I think the findings from the groundwork can then bring to more understanding if you would like to implement the health promotion program for persons with disabilities, what should we do and what should be concerned and what should be done for the next steps?

So for the definition of health promotion, the definition of health promotion is to build the capacity of individuals to be able to control or improve their health. And, of course, the benefits of health promotions for persons with disabilities, the most important thing is that it can prevent the secondary complication for persons with disabilities, for example, diabetes, obesity, hypertension because if this complication happens, it could easily on top of all the difficulties that existing for person with disabilities and also their families as well. So I think it is worth looking at it and then doing something to prevent it.

Five years ago from 2017, we started our CBR programs. At that time, we would like to learn the situations in communities, how persons with disabilities live there, what are the services that the local community provide for a disabled person? And we'd like to also collect data of person with disability data based on the ICF or the International Classification of Functioning, Disability and Health as well.

And we also would like to mutually develop the CBR program all together with the local organizations, started from medical sectors and also we would like to cooperate with social service sectors as well. So we would like to see if we can have all of them working together. At that time, we worked with five districts, five provinces in Thailand and from each province we were working with only one district because it can manageable and it was feasible for research project to conduct like that.

We would like to thank for the funding from the Thai Health Promotion Foundation and also Collective Change Foundation in Thailand who are the main funding agency to support our work. By using the ICF framework, I think this is the key conceptual framework for working with person with disabilities because what ICF gives is the ICF is the classification system, saying that the functioning of person with disabilities is the interaction between body function and structure and also with the environmental factors as well. This is very important to understand because otherwise, people tend to think that person with disabilities have to take care of themselves. It's their responsibility to get access by themselves or only by their family members.

I would like to highlight that environmental factors is very important as well, such as the building facilities, policies and attitude of service providers as well. So I think this is the most important thing to disseminate the information to local organizations, perhaps they have to know this first.

And then when we move to collecting data based on ICF framework, we set up the workshop before going out in the field and starting to collect data. We arranged for the workshop to promote understanding between service providers and persons with disabilities. So this meeting or this workshop is the gathering of the staffs and also persons with disabilities to work together. And by this workshop, we can improve the attitudes of staff toward persons with disabilities. And also we can improve the attitude of persons with disabilities towards the service providers as well.

So I think communication and attitude can be improved by these activities. And we did that by using dialogue and disability role play. So at that time we have learned a lot and it was quite a very good time, now many of them become friends.

Then after the workshop, we believe that, okay, now they have understanding of difficulties, persons with disabilities encounters. Then we started with the ICF data collection. What is the

questionnaires, how to collect data and how to analyze the data. From the data, what we have seen is that this is one of the questions we ask about underlying disease or their health conditions. It is very interesting to see that 36% of persons with disabilities they reported that they have hypertension and some of them have diabetes, stroke or heart diseases.

The interesting points are also 10% of them do not know that they have underlying disease or not. And 39% say that they do not have any underlying diseases. So I think this data may not correct because how they would know if they're not having tests, if they have never been to health facilities? So this is a large gap to fill here in terms of trying to start to search for their underlying diseases.

The other data that we would like to share is the data on the difficulties level in activities of daily living or ADL. Most of them say that they do not have difficulties in washing, dressing, eating urination, defecation. However, there are some proportions of them who still have difficulties. And by having these difficulties, it prevent them to be able to do some physical activities or some exercise. So we do not have the data of not having exercise, but we have this data which can imply that they tend to lack of physical activities leading to lack of health promotion.

When we ask the needs, what do you need to improve your quality of life and person with disability said that assistive devices such as canes, crutches or wheelchairs are essential. Other needs are employment and also monthly money allowance. So this need showing that person with disabilities need basic supports for their everyday life. And we hope that when their need can be fulfilled, then we can move to the next step to the health promotion services.

The next step of our project is that so when we have data, we analyze it and then we return data back to the local communities. And that time they can learn with each other and most of them, they participate in our workshop already. So they have good attitudes. They have understanding. Now the data are in your hands. They can start with systematic programs to improve quality of life. And we hope that the programs can meet the needs of persons with disabilities.

So what we have learned from our project is that basic needs of persons with disability should be met first, and the service for basic needs are by itself, touch upon health promotions. In terms of prevention of secondary complication, then access to healthcare is one of the keys toward health promotion.

The second one is that to ensure the capacity to control health of oneself, or to control health by person with disability themselves, it is not only capacity of person with disabilities, but also the capacity of health care providers and social service providers should be improved as well.

And the third one is that if health promotion measures are neglected, also we will definitely encounter with more of preventable complications. So what should be done next? In Thailand, we have the Empowerment Act, 2017. With this act, persons with disability service center is recommended to establish. Now there are approximately 2,500 centers. These centers are responsible to promote quality of life of person with disabilities, to organize services from multiple organizations, which is according or in line with CBR Matrix and also I think the inclusivity or the disability inclusiveness should also be mentioned as well.

So I think the tool kit is very important and very interesting. I will present the tool kit for them next time when I have meeting. So to promote the attitude of service provider, I think we should see the same pictures like this, that taking care of persons with disability is not task from medical sector only, but we have to think about all social determinants of health that affect health of person without disabilities. That person with disabilities should be taken care of by these determinants of health as well. So if we can persuade multiple sectors to see, or to picture persons with disability within the same picture, then we can gear the services into the same direction.

So in summary, I would like to say that to be able to provide health promotion for persons with disabilities, we have to take into account, both demand side and supply side, and also person with disabilities service center should be promoted to be a key organization to coordinate services in order to provide holistic care, to meet the needs of person with disabilities. And also the supply side, capacity building staff attitude, the modification of the building and the modification of services should be prioritized. For the demand side, person with disabilities, they have to realize their rights. They should be empowered and they should self directed by themselves to promote their own health. But of course their basic need should be fulfilled first.

For the disabled people, disabled person organization, or DPO, should coordinate with the supply side and also to empowerment person with disabilities to be able to get help, get service from the local organization sectors as well. Therefore, to provide health promotion, it is not only about health but all social determinants of health must be improved.

Before ending my presentation, we would like to thank our person with disabilities and their family to allow us to have the opportunity to learn a lot from them. Our colleagues from five provinces, all the funding agencies, the Collective Change Foundation, the Thai Health Promotion Foundation, the Faculty of Medicine, Mahasarakham University, Dr. Wachara Riewpaiboon and also people from NRCD, Japan who help to support me to be able to present this. And if you have questions, you can just ask or contact me by my email. Thank you very much.

Simulan Na! Beginning and Continuing the Road to Healthy Lifestyle for Persons with Disabilities in the Philippines

Frances Ann B. Carlos, Medical Specialist III, Department of Rehabilitation Medicine University of the Philippines - Philippine General Hospital, the Philippines

Good day, everyone. Thank you for the kind introduction and thank you to Dr. Mori and the National Rehabilitation Center for Persons with Disabilities, Japan, for organizing this event and for inviting our country to take part in this sharing. So let me just share my slide.

So my presentation will provide some examples of how the policies mentioned by Dr. Zakoji, Dr. Vaughan and Dr. Tongsiri are experienced by persons with the disabilities in the Philippines.

In 2019, I saw a team of persons with disabilities run the Spartan Race, and I thought, how did they start? How can we encourage other persons with disabilities to be more active? I had the opportunity to meet two members of the team, blind marathon runner, Mr. Aga Casidsid and amputee mountaineer Mr. Mon Anievas. I asked what their message is for other PWDs who would like to get into physical activities and Aga responded in Filipino, they should start now. Mon and Aga are two of the more than 1.44 million persons with disabilities in the Philippines. And for every five persons with disability, one was aged zero to 14 years, three were in the working age group of 15 to 64 years old and one was aged 65 years and above.

According to the National Disability Prevalence Survey in 2016, almost half of individuals aged 15 and over have moderate level of disability. And around 12% of Filipinos aged 15 and older experience severe disability. Meanwhile, according to the WHO UNDP report in 2019, non-communicable diseases, which include diseases such as cancer, heart disease, diabetes, stroke, and chronic respiratory diseases account for 68% of all deaths in the Philippines. And premature deaths from non-communicable diseases are largely caused by unhealthy behaviors, specifically tobacco use, unhealthy diet, physical inactivity, and harmful use of alcohol.

Physical inactivity has been identified as one of the leading risk factors for non-communicable diseases in the Philippines. And in 2015, an estimated 43% of adults were not sufficiently physically active. The same report recommended investing in cost effective interventions that will target the mentioned unhealthy behaviors. And it was found that next to salt reduction, the physical activity package has the next best return on investment saving 58,000 lives, over 15 years.

Given that adults with disabilities are three times more likely to have non-communicable diseases and knowing that aerobic physical activity can help reduce the impact of these chronic diseases, this discussion is very timely. In this report, we look at the different levels from the individual to the national support for PWD wellness. Beginning at the individual level or the demand side as Dr. Tongsiri mentioned earlier, we should recognize that persons with disabilities are heterogeneous. They have different motivations to be physically active. They

have cited reasons such as curiosity, boredom, the need for challenge. Some also mentioned the need to be more functional and improve overall health.

And finally, one of the most common reasons is that they wanted to share the knowledge they have learned with others and contribute to the community. Similarly, they use different ways to monitor their progress. For example, one disabled person mentioned that she didn't measure her baseline weight or BMI values, but instead was rewarded more by the subjective feeling of improved wellbeing.

Another respondent said that he liked challenging his own personal records. Persons with disabilities also have different interest and capabilities and an active lifestyle can be achieved by trying different things and seeing what works. As one of the PWDs mentioned, we can also do that just in a different way. One such inspiration is Julius, together with his partner Rhea, who pursued dance sport. At the level of the individual, the challenge is to start somewhere. So would it always be one day or day one?

For one of the PWDs who is also a physiatrist, Dr. Ligaya, it started with three simple steps. First, she committed to a start date. Second, she got a physical fitness coach and worked out at home through Zoom. And third, she bought a water bottle to make sure that hydrating was easier for her.

Finally, probably the most important component is the empowerment and individual belief that they can do it. And this was positively influenced by finding models and inspiration that say yes, it can be done. For example, Mr. Anievas cited Terry Fox, the Canadian athlete with hip disarticulation as his inspiration. And with technology, it has been easier to find role models from around the world.

We now move on to social support. The Filipino family is known for being tight and nurturing. Some parents are encouraging while some are protective, but the key is to involve the parents. This is a perfect opportunity for parents to be healthy as well while bonding with their children. Group physical activities also facilitated the formation of communities and support groups. It becomes a venue to find people, both among disabled persons and abled individuals of similar interest. It eventually turns into an extended family and support group.

Such activities also help wide end advocacy by establishing linkages with other organizations. For example, that the Tapak Outdoors, which is a local shoe company, strongly supports PWD advocacy activities and amputees may also order customized shoes from them. Similarly, the Nomad Terra Crawlers were just a group of friends who love the mountains. They started with a question, can persons with disabilities also do this? They tried and invited one blind friend to join and after the success of that hike, they got in touch with the resources for the blind, amputees eventually joined. It grew and got more support, and for them, the first message is to show the world that disabled persons can do it. But ultimately the goal is for the PWDs to be independent.

The most important ingredient in establishing these relationships was trust. And the persons with disabilities, especially for challenging physical activities, want to know that you have the

best intentions and that we respect their abilities, providing the right amount of push and at the same time with realistic expectations from them.

Moving on to the health sector, health professionals have a major role in promoting physical activities among patients with disabilities. Adults with disabilities are 82% more likely to be active if their doctor recommended it. Doctors and other health professionals can use these five steps to increase physical activity among adults with disabilities. First, remember that physical activity guidelines are for everybody. Then ask about their level of physical activity, discuss barriers, recommend activity options, and refer patients to resources and programs.

Locally, the Philippines Department of Health had launched the Philippine national guidelines and physical activity in 2010. The physical activity prescriptions are based on the different forms of physical activity and opportunities they present themselves, which may include activities of daily living or recreational activities. However, it does not include guidelines specific to persons with disabilities. Some institutions are active in organizing awareness campaigns, including our very own Philippine General Hospital. One example is a department of rehabilitation medicine in Mindanao, Philippines, where they conduct PWD awareness activities regularly through lay forum and group physical activities open to all disabled persons.

The Philippine Academy of Rehabilitation Medicine or PARM also has a program known as PARM M.O.V.E.. M.O.V.E stands for Making Ourselves Vigilant to Exercise, has been running for more than a decade and creates a venue for awareness and physical activities for both disabled persons and abled individuals.

Finally, we look into the initiatives at the national level. Since 1992, the Philippines had a Magna Carta for disabled persons, which included free use of government recreational or sports centers, as well as the government's provision of training in sports and physical wellness for PWDs. The country's department of health also aligned its health and wellness programs for persons with disabilities, with the universal healthcare through the global disability action plan.

We also have the National Council on Disability Affairs, which is mandated to act as the lead government agency in upholding the rights of persons with disabilities. And through the years, they have organized activities and partnership with other organizations that encourage physical activities among disabled persons, such as the Philippine Para Sports Summit and Sports Clinic for students with disabilities.

The country also has the PHILSPADA or the Philippines Sports Association for Differently Abled Athletes. And currently the organization is preparing for the Asian Para Games in October.

Given all of these initiatives, what have been some of the outcomes experienced by the individual disabled persons? They reported that getting into physical fitness has improved their wellbeing and self confidence. Physically active persons with disabilities also share their knowledge and skills with their fellow disabled communities. Most of them also encouraged other abled persons, such as their friends and neighbors to be physically active as well.

Lastly, some of them have expressed that it has helped them get through the COVID pandemic. We identify the current drivers that facilitated promoting physical activities. One of the most frequently cited was technology, particularly as an adaptation during this pandemic. It has made connecting to other people easier and it also enabled people to do virtual activities such as group Zoom workouts, or the virtual team really organized by the Normad Terra Crawlers participated by some persons with disabilities. Corollary to the effects of technology, there has been increasing awareness, both among persons with disabilities and abled persons.

And finally, there is a growing number of established communities, government institutions, and organizations dedicated to promoting physical wellness among the disabled group. However, there are still barriers which include gaps in addressing the basic needs of persons with disabilities, presence of hindering infrastructures and environment, lack of financial resources and gaps in implementation of policies. As seen in the results of the 2016 Disability Prevalence Survey, almost half reported the transportation, neighborhood and places for socializing and community activities were very hindering. In the same survey, 30% of persons with severe disability needed more modifications in the community. 19% needed more assistive products for seeing and 16% needed more modifications at home.

Moving forward, we need to continue collaboration among the different organizations, sectors and institutions. We also need to strengthen promotion of physical activity through national level mass public awareness campaigns. More data should be gathered and we need to continue practicing evidence-based policy making. And we should keep in mind that persons with disabilities are heterogeneous to better account for their specific needs.

Finally, we should strengthen implementation of policies to address inclusivity and meet needs of persons with disabilities, such as providing disability friendly structures, financial support, and maximizing technology. So before we end, remember to START now. S for Self-belief and Social support, T: Try different things, A: find Activities that you enjoy, and R: Resources that are available, and T: just Take that first step.

I would like to thank the following for their invaluable contributions to the support, and thank you very much for your kind attention and thank you for the organization NRCD event. Thank you very much.

Incorporating exercise into daily activities prevents lifestyle-related disease and promotes health

Yukiharu Higuchi, Chief Exercise Therapist, Remedial Gymnastics, Center of Sports Science and Health Promotion, NRCD, Japan

Thank you very much. And all of the speakers, previous speakers, thank you very much for your wonderful presentations. And I would like to talk about the incorporation of the exercise into the daily activities. And especially I will focus on the effectiveness of the exercises.

I would like to introduce myself. Within Japan, I am quite unique. For persons with disabilities, through exercise and sports and recreations, I promote their health. And this is the work of exercise therapist.

So this is the topic of the presentation. First, current health status of persons with disabilities and effects of regular exercises and health promotion program in a draft version and utilization of exercises and introduction of innovative approaches will be the contents.

First, the current health status of persons with disabilities in Japan. For this report, we had the cooperation of Saitama Rehabilitation Center, Yokohama Rehabilitation Center, Chiba Rehabilitation Center and Rehabilitation Service Bureau of National Rehabilitation Center for persons with disabilities and Shonan Aftercare Association. And also I would like to express my heartiest appreciation to the persons with disabilities who contributed to this research.

And the 1,145 persons with disabilities were the subjects for a BMI survey. 40% of them had either underweight or obese. And 1047 persons with disabilities had the genders specified. And compared to the healthy volunteer or healthy people, the obesity ratio was quite high for persons with disabilities in both genders; male 43.8% and female 25.4%.

Next, it shows the implementation of exercises and its relationship with the BMI focused on spinal cord injury people. And 44 was in a group of implementation group and then 43 was non-implementation. And without exercises, the BMI was peaked in 50s, and then as people get older or the years after injury will be prolonged, health damage due to the lifestyle related diseases may be predicted. And also, or if they have regular sports and exercises, the weight is stabilized. And therefore, in other words, without exercises or sports, the health damages will be increased.

And also some people have difficulty of having a weight measurement in a regular basis. And therefore regular weight measurement is the first step for health promotion. And of 100 spinal cord injury patients were the subject of the checkup of the lifestyle related diseases conditions and as you can see, most of the people with spinal cord injury living in the community are at high risk of developing lifestyle related diseases. And based on these conditions, we also researched the effects of regular exercises. And this is the regional corporation model project in corporation with the rehabilitation centers I just mentioned.

And there is a correction in the slide. The exercise program for duration, it says one hour and 20 minutes, but it should read at least 20 minutes at a time. So this is a correction.

So for this program is composed of intervention in exercise, nutrition, and lifestyle, especially focused on exercises. Therefore, the frequency of the exercise is at least once a week and at least 20 minutes at a time. And intensity of the exercises will be equivalent to 50% of VO2 max, so called the aerobic exercise called Nikoniko pace exercise is given. And also our general condition is slightly intense on the rating of a perceived exercise. And based on the conditions of injuries and diseases, the types of events and exercises were determined.

And for our nutrition program, we will raise the awareness of dietary habits of the participants and also with the classroom style and seminar format, the information and educations are given. In lifestyle program, the weight measurement, and also the raising awareness of daily activities for individual intervention and also information given in a classroom or seminar format for group in intervention. The intervention period was three months. And this is the results.

First, I would like to show you the changes in anthropometric items based on the disability. For example, people with traumatic brain injury, visual impairment, motor dysfunction using wheelchair, motor dysfunction able to walk, intellectual disability, and developmental disorders. Black one is after the intervention. And as you can see, depending on the disabilities, the efficacy of the intervention differs. And next, this shows the changes in serum lipids before and after intervention. With the same five groups, the TG and HDL cholesterols were measured, and same as anthropometric items, the effect were depending upon the disability levels.

Next. So amongst the participants, those who showed the duration of the exercises were the subject for further analysis. And weight loss and the reduction of the serum lipids were shown. And if the aerobic exercise was more than 150 minutes per week, the weight was lost approximately by two kilograms and body of fat percentage was reduced approximately by 1%. NTG was reduced around 40 milligrams per deciliter. Therefore, 150 minutes per week aerobic exercise is quite efficacious.

And this slide shows the results of lifestyle related questionnaire survey of the participants. And the major changes are as follows, changes in anxiety about activities of daily living was decreased and also changes in perceived health was improved. And as well as the increased activity in life and the social participation, and we believe this kind of changes will further improve the social participation and activities. And to our surprise and joy through this exercise, they formed a club for voluntary sports activities, and they have been happier than ever. And this shows the survey after exercise intervention for people with visual impairment.

And the question was as follows, are there any improvements you would like to see in the exercise intervention program and especially the highest percentage, 57.9% showed opportunities to interact with other people undergoing the exercise intervention program. And the active exercise program will lead to an active lifestyle. And also in addition to that, many of the visually impaired people would like to have interaction with people having the same disabilities. And this is quite important and intervention of sports activities and exercises will lead to a peer support program.

And next, I would like to show the draft version of health promotion program. And this is one of the collective or the group program. They enjoy the converse with their peer members and also by having enough, sufficient exercises and towards the same target, they enjoy the interaction. As you can see the intensity, duration and contents of the exercises are mentioned on the slide.

Next. This shows examples of individual program and the health guidance, and also small group nutrition guidance were given. On the right top panel shows the aerobic exercises and also bottom three photos shows the muscle training. So most effective way is to combine aerobic exercises and muscle training.

Next. And now I would like to show you the utilization and innovative use of exercises according to the disability characteristics. For example, the paralysis of upper extremities or lower extremities or trunk of the body, based on the residual function and the muscle strength, we will have load adjustment for the exercises. And for lower limb, continuous low stimulation for paralyzed skeletal muscles. The actually whole body exercise would be possible, and so whole body circulation was improved and also the blood pressure was stabilized through those exercises.

And this shows the innovations in rules and tools for exercises. For those electric powered wheelchair users, based on the preference they can choose what they enjoy. As you can see on the photos, the person is using the exhaled breath enjoying billiard. And the next.

For health promotion, and also functional approaches are made. On the left photo, you can see the table tennis played by rolling under the net. This is done in Japan, especially for the visually impaired people. And this is the innovation using sound table tennis. And on the right, those who can stand up will have this exercise to improve the whole body constitution. And on the right, this is the table tennis using exhaled breath. And this also improves the respiratory function as well.

And next, this is group game exercises. And this is also innovative approach for exercises. Left hand side is a cervical spinal cord injured people and wheelchair usage was a basis of this innovation and this is the giant ball soccer. And on the right, those who have upper limb dysfunctions. And a hand billiard is the case, using the hand to roll the balls.

And this slide shows the points to keep in mind when instructing exercise, according to the disability characteristics. Higher brain dysfunctions, visual impairment, and physical disability, are the basis for disability characteristics and example of exercise intervention and professional consideration, whether it is necessary or not are tabulated in the matrix format. And in case of visual impairment, they are not able to see, and also they cannot perceive surrounding situation, therefore they are worried about the movement. However, with the special, environmental consideration, they will be able to move, but without any worry.

And also we consider about the environmental recognition level, not only recognition, but causative disease and complications and taking medicine or not, and so forth.

And also, I would like to show you exercise programs that they can perform at home. Stretching and step aerobics, and also on the spot step and balance training, standing on one leg and also squatting for muscle training. This is a series of exercises. The use of stretch mat or joint mats, even the visually impaired person can grasp the position and direction, therefore they can practice the exercises with the ease of mind.

And this is the pair program. And on the spot walking or guided walking, or tandem walking. For example, usage of the poles and towels, they can use your muscles in a own pace. And as you can see on the right bottom photo, by using poles, this allows the visual impaired people to independently create their own rhythm.

So having those into a consideration, we can incorporate exercises into their daily life and which will be leading to an active lifestyle. And also we'd like to moderate the aerobic exercises sufficient to improve their health. And with the muscle training, they can improve and maintain a movement and activity function. And also it can prevent the deterioration of activity function. And also the through recreation and sports, they practice fun health promotion and maintain activity function. But before starting those exercises, you need to consult with your doctor or exercise experts.

So based on our activities, we come up with the future challenges and the effectiveness of the exercises differ based on the disabilities. Therefore, we need to create exercise standard program for each disability, and also awareness raising activities related to the health promotion for in and out of Japan will be necessary so that the people with disabilities understand health promotion necessity. And as was mentioned, because of the environmental issues, the people with disability may not be able to sufficiently have exercises. Therefore environmental improvement for health promotion is necessary by using the IT technologies and cooperation of regional basis. And in Japan, still we need to nurture leaders and supporters for health promotion. And this is an urgent need for fostering those leaders.

Last but not least, there is a high barriers for people with disabilities to access to the health promotional measures. Therefore the nation and local communities have to develop the measures for health promotion, which is easily accessible to the persons with disabilities. Thank you.

Discussion among presenters, Q&A

Facilitator: Koji Tomiyasu, Director, Center of Sports Science and Health Promotion, NRCD, Japan

Tomiyasu: Thank you very much. I am an internal medicine doctor. Well, thank you all very much to all the other speakers and to all the audience who joined us with this international seminar 2022.

Well, today during the seminar, I appreciate your being punctual. Some of you finished even faster, earlier than 20 minutes. So we have plenty of time for a discussion. Therefore I would like to hope that we will have a very fruitful 25 minute discussion time with you all.

First of all, I would like to review what we heard. From Dr. Zakoji of WHO, the including the inclusion policies and what kind of approaches have been made by WHO were shared. And then after that, Dr. Vaughan gave the medical health services and information should be equally provided or equally available for people with disabilities and without disabilities and for persons with disabilities there is even additional health services required. And from Dr. Tongsiri, we learned what they learned in Thailand from the community based rehabilitation, all the proposals, all their needs that have been raised by the persons with disabilities in Thailand were raised. Since 2007, Disabled Service Act or Disabled Service Center was established in Thailand. And I, myself personally, would like to learn more about that. And then, that was followed by Dr. Carlos, and we learned that necessity of physical activities and importance of utilization of technology and in addition to other elements. And then in the last presentation by Mr. Higuchi, we learned a lot from his experiences and the recommendations from the exercise therapy perspective.

Now, since we have a lot of people joining us online. We would like to have a very fruitful and productive discussion and so far we have not yet received any particular questions from the audience. So maybe I can start off with a question from me to all of you speakers.

So today we focused on physical activities so that we can prevent the diseases and also so that we can promote health in persons with disabilities. From Dr. Tongsiri from Thailand and Dr. Carlos from the Philippines, I think that we can learn in Japan. And my question may be a little broad but as we see the advancement of medicine and our public services, our public health, our average lifespan is getting longer and longer. This means that we have more people, more elderly people and more persons with disabilities in cared by elderly people or cared by older people. And also we have the low birth rate. So it means that more and more elderly, more and more persons with disabilities cared by elderly or cared by other people.

And so all these wearable devices and other technologies are really required for us to be available. Now, do you have any thoughts or ideas regarding that? I mean, what we can expect from these technologies. Dr. Zakoji, maybe you can start.

Zakoji: Thank you very much for a very provocative question. I am not pretty much sure what kind of granularity of information I can provide you with, but as a father of a 15-kilogram cerebral palsy daughter, it's even not easy for me to hold her the whole day long. I suffer from severe backache every day. So I do understand that the importance of such kind of innovation, especially the assistive technology is going to increase across the region as we observe the population ages.

And it's not only for the care of the elderly, but also I trust that there is a possibility that those technologies can increase the variety of the activity that people with the disability can actually do, not necessarily for the care of those people, but for their own pleasure. And the one example that came to my mind was that one of our friends in Japan climbed to a mountain, even though he was not able to walk on his own, but there was assistive technology to help him to climb the mountain. So I think that those kinds of possibilities are one of the examples that maybe we can be optimistic about. I don't think I have answered your question very to the point, but I stop there. Thank you very much.

Tomiyasu: Thank you. Dr. Cathy Vaughan please, the same question.

Vaughan: I think there is a lot of potential with wearable technologies, particularly for older people. And as you mentioned, older people with older carers, so to support carers as well. I think the point actually Dr. Zakoji made about the importance of carers is something we haven't talked about a lot today, but is central.

I think with wearable technologies though, there are, I guess, limits to what they can do. So it's also that combined with accessible services, maybe in the home, so services providing outreach, services making sure that older people can get into services, and that the wearable technologies and so on are not invasive of privacy because there's sometimes a balance between ensuring safety for older people, but also not treating older people like children. And so I think this can be a risk there, but I myself have an older parent who wears a wearable technology because he lives on his own. And if he were to have a fall, we want there to be alerts. And I know it gives both him and us a lot of peace of mind. So there's definitely a place for wearable technologies. And I think there will continue to be advances there that will support them. Thank you.

Tomiyasu: Thank you very much, Dr. Tongsiri, what do you think?

Tongsiri: Thank you very much for all your question. This is very interesting. For the technology to help our family members to take care of person with disabilities and also for elderly, older adults. We still quite have limitation on developing the kind of advanced technologies. But what we have is that when we get the basic assistive devices, we have to adapt the devices according to the physical health or the functions of person with disabilities. And this adaptation is made locally. And I think it's very brilliant idea. And I think more and more research should be come in place to back up the safety, also the affordability of these technologies as well.

And I think the issue of affordability should be taken into account. And then with not only the technology, but we have like the new services for elderly people who are living in communities.

It's like what we call is long-term care services with care manager and care givers as well. So I think this can be very active now at the moment. Thank you.

Tomiyasu: Thank you very much. Now I would like to ask Dr. Carlos from the Philippines, the same question.

Carlos: Thank you for that question. Actually in the Philippines only 5-15% sadly have access to assistive technology. So it's still limited. However, we're trying to prioritize tele-rehabilitation, which is the virtual consultation, virtual performance of physical therapy, occupational therapy, and other services. And now initiatives have been started to improve, provide affordable. So as Dr. Tongsiri mentioned, it's important for our country affordable wearable devices. So we're working for example, with the College of Engineering and the rehabilitation medicine to develop a device that can monitor, for example, the vital signs, while PWD or elderly are performing either exercises. However, at this point it's still in the development stage. Thank you.

Tomiyasu: Thank you very much. Now then what do you think Mr. Higuchi?

Higuchi: Exercising that they were not able to do before. With technology, I think that technology is given one option to these people with disabilities, but whether they would accept it or not and also whether they say the level of technology is really meeting their needs. That is something that we have to ask or that we have to identify. Are we using it to treat disability or we using it for their daily living, or are we using it for prevention? The assistive devices are not yet fully used in Japan either. So affordability would be one big issue for Japanese people as well. Thank you.

Tomiyasu: Thank you very much. And about the prices or affordability is maybe the restriction or limiting factor. And by the way let me digress from the discussion, for example, wheelchair itself is very expensive and some people cannot afford a wheelchair and TED Amos Winter who spoke, and a $200 wooden made wheelchair was introduced by TED. And the same with other countries in Japan, for example, the donations may be possible and the public agencies would be supplying. And now not all of them are enjoying wheelchairs who need them, therefore, wearables, pervasive wearables may be difficult. However, for the future as Dr. Vaughan mentioned, we should not give up. Thank you. So amongst the panelists or speakers, do you have any questions to each other? Mr. Higuchi, please.

Higuchi: I have a question to all of you. Seminars and the individual programs to increase knowledge and the skills were mentioned by each speaker in their presentation. If you have a specific curriculums or the programs I would like to know, could you share with me?

Tomiyasu: Which speaker would you like to ask or all of them? Okay. All the speakers. Do you have something that you can share? Dr. Zakoji, can you comment on this?

Zakoji: Thank you very much for the question. Unfortunately I do not have a specific example at hand that I can share, and I think the experts are more in a better position to provide tangible examples, perhaps. Thank you very much.

Tomiyasu: Dr. Vaughan Please.

Vaughan: I have some examples that are specific to Australia, but that's not necessarily helpful. And I think one of the key things is to make sure that curriculum or courses are appropriate for the local context. I certainly know and I will know that Dr. Carlos will have more information about examples from the Philippines, but working with colleagues in the Philippines, I know of examples where people with disability have co-facilitated programs with researchers from either De La Salle University or the University of the Philippines to build capacity, yes of health workers. That's one example I can think of, but I can also think of an example of working jointly to run training for department of transport staff to try and increase accessibility of transport.

I think one question I would have to other panelists is about how we build capacity of professionals, whether that's health workers or architects or education providers to work in a more inclusive way with disabled people's organizations. I think one thing I got from all of your presentations was that disabled people's organizations are this huge untapped resource in the region. And we need to develop better skills for listening to people with disability and learning from them. And I wonder if there's a course that anyone knows on how to do that, and if not, maybe we should think of developing one.

Tomiyasu: Thank you very much, Dr. Tongsiri, do you have any thought on that?

Tongsiri: Right. Thank you very much. For the health, I mean, for the physical activities of exercise, specifically for the person with disabilities, I have very limited experiences. But what I have as I presented in my slides, I have a workshop that is developed for health service sectors. At first, we are recruiting only staff from health sectors, how to improve quality of life. Then we find out that health sector staffs are not enough. And at that time, I would like to increase or improve the universal design concept for health sectors.

Okay. Of course we understand, but how we can actually build the facility or how we can actually modify the home for persons with disabilities to improve their functions or to decrease fall risks. Now that's give me an opportunity to walk next door to the Faculty of Architecture in my university. And I've learned a lot from him. And he said that he's an architect. He just look at the space, is it beautiful? Is the color alright or ventilation is good, but he doesn't see persons.

But to medical sectors, we see only our patients, but we do not care about that environment. So that's why we sit together and then we talk and then we learn, then we develop the training course that recruit both medical doctors and also builders, and also local organizations. They sit together and they learn the same things. And at that time, it's very fascinating so developed from there. We have more training courses for the universal design concept. And also this can incorporate with health promotions as well. And from this and from our panelists, I think next time I am going to add up some exercise for persons with disabilities as well. Thank you.

Tomiyasu: Thank you very much. So same question, Dr. Carlos would you please answer to the same question?

Carlos: Thank you for that question. I agree with Dr. Vaughan that it should be contextualized and individualized, depending on what's important for the country, the personality and the interest of the individual disabled. But I guess one of the important factors we don't have a specific curriculum or course that we can recommend, but as she mentioned earlier, the disabled organizations from when I've spoken with the different disabled persons, support group was very important for them and doing the activities in groups, helps them, even if just through Zoom, virtual activities, it keeps them motivated.

And after this pandemic, they're actually looking forward to doing it in person or face to face. Meanwhile, for Dr. Vaughan's question regarding the capacity building, unfortunately, the Philippines were still in the process of doing researches if our hospitals are inclusive enough, not only the infrastructure, even if, for example, persons with hearing impairment, are there enough staff who understand sign language? So it's not just about the infrastructure, but the capacity building itself. And at this point we're still in the data gathering process on the needs of the community. Thank you.

Tomiyasu: Thank you very much. In Dr. Carlos's presentation, I remember seeing some pictures of like a hiking or trekking. Thinking of physical activity, would they take into consideration potential risks like getting sick or feeling not good. Do you have doctors or nurses to go with them in that case?

Carlos: For the one I have presented, it initially just started with a group of friends who just wanted to invite a friend, a common friend with a visual impairment. So that's just how it started. Then eventually the medical community joined in. So in some of their trekking, there were doctors, medical students and nurses wanted to join the trekking group. However, it's not a formal, it's a pretty informal organization, but they do simulation activities prior to conducting the hike. So they train them before going into the mountains themselves to better prepare the PWDs as well as their guides. Thank you.

Tomiyasu: Thank you very much. Now we have a question in the chat and I'm reading it. So please be patient with me. The question is to Mr. Higuchi and Dr. Carlos. For persons with disabilities, they have to have exercises and exercise is more important, especially for persons with disabilities. And for social participation, they may have the opportunities for exercises, but they miss exercises. And however they may participate in the society through employment. Which is more important, social participation or exercises? Dr. Carlos, please.

Carlos: I think the social participation first, because for example, in our experience locally, they just start to get curious first. They want to see what's going on. So they don't have to like finish the whole race, finish the entire physical exercise program, but when they see others enjoying it, so the Philippines is a pretty social community. So when they see that others are enjoying it, they get encouraged. So for example, from the experiences of the other PWDs, even the abled person. So it's the other way around, it's not the abled individuals telling them to exercise. It's the PWDs or the disabled persons encouraging others to join them. So I think the social participation will be an initial step in encouraging them to physical activity.

Tomiyasu: Thank you.

Higuchi: Thank you very much. I agree with Dr. Carlos. They shouldn't be lonely or segregated. Based on their preference, if they need physical strength, the exercise may be given. If a device can be used, the device will be used. And also human hands will be important. They should not be lonely or segregated in the community. Thank you.

Tomiyasu: Thank you very much. Doctors or speakers, do you have any additional thought or additional comment on this? If not, okay, I would like to raise another question. Those of you who are involved with the disabled persons issues in Japan, I'm interested in launching a workshop that Dr. Tongsiri launched in 2007. You mentioned that you had some difficulties and problems, but would you share what experiences you had to launch the service center back in 2007? Are you on mute Dr. Tongsiri?

Tongsiri: Oh, yeah. Sorry. Can I have the question again? I'm not sure I understand it correctly. Sorry. What is the question again?

Tomiyasu: Well, if I remember right, you launched a workshop or a service in 2007 and further you launched the use of the service center for persons with disabilities. And in the beginning, I know how did you actually make it happen? What kind of difficulties did you have in order to keep it going? What issues do you have?

Tongsiri: Yeah, thank you very much. At first like I said, even me myself, I think in terms of very fragmented service. I'm a medical doctor, so I deal only for medical issue. Also for the social sector or local organization, they are very well prepared for helping disabled people. If you are having illness or you're sick, just go to the hospital. It's not my job, but it's my job to intervene or suggest you to go to the hospital. Then when they are in the hospital, I give them medication. And then, oh, how about my home modification? Oh, it's not my job. Just go to local organization.

So person with disability has to be, walking back and forth and they are getting confused and most of them are poor, so they cannot commute back and forth to facilities. So I think what I've learned, and I think it should be disseminated more is our job. It's the holistic care. We have to see the same picture, but then you have your own expertise. You have to deliver at your professional, but we have to do our professional leading into the same direction. Before doing that, we have to sit together, communicate with each other and also communicate with persons with these disabilities as well. And I think by doing this, I can ease my difficulties from the beginning and then I think in the future, I may encounter with other difficulties in terms of budgets, in terms of mobilizing funding or the budget to work with person with disabilities because the policy of the budgeting is still fragmented. So I have to work toward, on the holistic use of the budget as well. Thank you.

Tomiyasu: Thank you very much. The continuation, for example exercise or physical activities, the introduction is different things with the continuation throughout the lifetime. So continuation and maintenance throughout the lifetime is very important. Do you have any advices or the findings through your activities, how to make sure that they will continue and not only Dr. Tongsiri, but the other participants, I would like to hear from your thoughts. But first, Dr. Tongsiri, please.

Tongsiri: I think we have to differentiate between physical activity and exercise. To me, I think physical activity is more important in the beginning. The number of 150 minutes a week, I think that is the first target. And because if I go out and say to persons with disabilities about that, okay, now you have to get start exercise. They may think that I am not being able to walk. How can I do exercise? Something like that. So I think the terms to use the understanding or the just move your body parts or not stay still, and let them think that it is not that difficult and we do not train you to be in Olympic next year, something, but then just physical activities.

Then I think make it fun, make it improve. And using technology like this, like Zoom or example from Dr. Carlos is very, very precious. And I would like to also share with my colleagues. So I think that that's all for me. Thank you.

Tomiyasu: Thank you very much. Dr. Carlos, do you have any thought on this?

Carlos: I think in our country, one of the main problems for sustaining is as mentioned by Dr. Tongsiri earlier to address the social determinants of health. So if other priorities go in first before prioritizing their personal physical activities, it would be hard for them to continue it. So the social determinants of health should be addressed first. And secondly, as mentioned by Dr. Tongsiri, I agree, it should be fun. We could use technology, for example, some of the disabled persons I've spoken to stop training because of the pandemic. So they lost their momentum in doing their exercises. But when there were offers to do virtual workouts in groups, so that's when they were able to start it again. Thank you.

Tomiyasu: Thank you very much. Dr. Vaughan, would you please answer to the same question?

Vaughan: I totally agree with Dr. Tongsiri and Dr. Carlos. And I also think as well as fun workout type exercise, which is really important and particularly important for cardiovascular health. There's also opportunities to try and get people moving more by helping people work out how they can do things that are useful to them around the house, so functional movements. So it might be helping people work out strategies for moving their body to hang up the laundry or to assist their partner with the cooking, or work in the garden.

So things that give people pleasure, but also that allow people to participate and contribute to their home life or to their community life. I think gives a sense of satisfaction and pride as well. So I think there's a real place for working with physiotherapists and other allied health professionals who can help think through strategies for functional movement that allow people to contribute and be part of their community.

Of course, in this region, that was one thing I was going to say before is that we have a huge shortage of allied health professionals across the region. And so I think that's the something, all governments and all of us in the region need to be advocating for is more training of people with specialized skills not just in working with people with disability, but especially in working with people with disability. Thank you. Arigatogozaimasu.

Tomiyasu: Thank you very much. Dr. Zakoji, do you have any final comment?

Zakoji: Thank you very much. I am cognizant of the time running out, but just 30 seconds. I can't agree more about what has been discussed by all the panelists and I think the siloed services by the healthcare workers or the prejudice among the healthcare workers, an absolute gap in the number of the allied healthcare workers, those are all the challenges that we have to tackle together. And this is not officially confirmed yet, but we are aiming to produce our regional action framework for the health workforce in the Western Pacific region, hopefully in 2023.

So we do hope that we can integrate those very important disability inclusion competencies into the curriculum for all types of healthcare workers, particularly if we provide the primary care services. Thanks very much for this opportunity and your great input.

Tomiyasu: Thank you. Those of you who participated, I know us and who contributed to the other session on Zoom virtual and I will really appreciate all these speakers and panelists for answering all the questions, provocative questions sometimes. And I also would like to thank the audience for joining us today. Thank you.

Closing Address

Nobuhiko Haga, Director, Rehabilitation Services Bureau, NRCD, Japan

I would like to thank you all very much for joining us at this International Seminar on the Approach to Keep Healthy Life for Persons with Disabilities. Dr. Zakoji, Dr. Vaughan, Dr. Tongsiri, Dr. Carlos, and Mr. Higuchi, and also Dr. Tomiyasu who facilitated the discussion, thank you very much for everything.

In fact, the theme of this international seminar is something that we wanted to focus on or talk about back in 2020, but because of the COVID-19 pandemic, the event had to be canceled. And then in last year, 2021, we had a web seminar on rehabilitation and COVID-19. Finally we could talk about this approach to keep healthy life for persons with disabilities this year. I am much honored and so glad that you all joined.

It is very well known and also we researched that those who have disabilities, not only musculoskeletal, but those who have visual, sensory, psychiatric, or intellectual disabilities may have less physical activities in daily life. And this can lead to secondary disorder risks. Today's speakers said that we need to have some evidence accumulated so that we can take action on that.

The Science Council of Japan issued a proposal back in 2014 which is about physical activity and well-being in the super-aged society. And the proposal emphasized the importance of constructing a system to prevent secondary health problems caused by reduced physical activities in persons with musculoskeletal disabilities. In Japan, the law on eliminating disability discrimination was enacted, following the Convention on the Rights of Persons with Disabilities. We now are required to take the appropriate action and also reasonable accommodation for those with disabilities. Although we are still faced with the COVID-19 pandemic, I think that we would like to keep working on resolving all these issues. Thank you very much.