Asia-Pacific
Economic Cooperation

Advancing Free Trade
for Asia-Pacific Prosperity

Regional Workshop on Dementia Prevention

APEC Health Working Group

October 2023

Asia-Pacific
Economic Cooperation

Regional Workshop on Dementia Prevention

APEC Health Working Group

October 2023

APEC Project: HWG 10 2021A

Produced by

Ponnusamy Subramaniam
Center for Healthy Ageing and Wellness (HCARE)
Universiti Kebangsaan Malaysia
Jalan Raja Muda Abdul Aziz
50300 Kuala Lumpur
Malaysia
ponnusaami@ukm.edu.my

For
Asia-Pacific Economic Cooperation Secretariat
35 Heng Mui Keng Terrace
Singapore 119616
Tel: (65) 68919 600
Fax: (65) 68919 690
Email: info@apec.org
Website: www.apec.org

APEC#223-HT-04.5

CONTENTS

List of Figures

ACKNOWLEDGEMENT

We would like to express our appreciation to the APEC Secretariat, APEC member economies and the Health Working Group of APEC for their support for this project. We would also like to thank the cosponsoring economies Hong Kong, China; Indonesia; and Chinese Taipei.

Sincerely, we would also like to express our gratitude to the highly valuable contributions of the esteemed speakers, participants nominated by APEC member economies, as well as all other participants from various academic, clinical, policy, governmental, and non-governmental organization backgrounds who attended and actively shared valuable input throughout the workshop sessions. Last but not least, we are grateful and thankful to all who have worked together with us in ensuring that this workshop was a success.

PROJECT OVERSEER

Associate Professor Dr Ponnusamy Subramaniam

Centre for Healthy Ageing and Wellness,
Universiti Kebangsaan Malaysia

EXECUTIVE SUMMARY

Parallel to global population ageing, Asia-Pacific economies are seeing an increase in lifespan as well and at present, 39% of the global ageing population are represented by APEC economies. The number of people with dementia in the Asia-Pacific region is postulated to increase from 23 million in 2015 to almost 71 million by 2050. More pressingly, dementia is recognized as a leading cause of caregiver and economic burden within Asia-Pacific.

There is a need to address this concerning issue, even more so as there are currently no pharmacological treatments available to cure cognitive impairment and dementia. The functional consequences, impact on social behavior, reduced quality of life, financial, medical, and caregiver burden attributed to cognitive decline calls for effective lifestyle modifications and interventions that can improve cognition while delaying cognitive and functional deterioration in older adults. Hence, a workshop was convened in hybrid mode with both physical and virtual attendees on the 23 and 24 May 2023, at Berjaya Times Square Hotel, Kuala Lumpur by the project overseer, on behalf of the APEC Health Working Group. Malaysia as the host member economy chaired the 'Regional Workshop on Dementia Prevention' workshop with participation from 12 member economies namely Australia; Brunei Darussalam; Chile; People's Republic of China; Indonesia; Malaysia; Peru; The Republic of the Philippines; The Russian Federation; Singapore; Thailand; and Viet Nam. Participants were made up of academicians, clinicians from primary healthcare, policymakers, government representatives, and representatives of non-governmental organizations who work with older persons, ageing studies, dementia related or dementia prevention initiatives. The workshop aimed to increase awareness and enhance capacity for dementia prevention, as well as moving towards reducing economic burden of dementia on families, communities, and healthcare system. In addition to providing a platform for networking and working towards meeting social and economic needs within member economies, this workshop sought to foster healthy ageing by identifying best practices in strategies to prevent dementia and promoting healthy lifestyle with a multi-domain approach throughout the life course.

The objectives of the workshop were: -

- To facilitate, bridge and exchange knowledge through sharing of development experience, innovative culturally relevant strategies and evidence-based practice regarding dementia prevention initiatives or approaches within the Asia-Pacific region.
- To build capacity among participants in preventing and/or delaying dementia with focus on empowering healthcare system.
- To review, discuss, and harmonize the multi-domain lifestyle modification approach towards dementia prevention and dementia risk reduction as a guideline for the Asia-Pacific region.
- To identify available resources and services towards dementia prevention, needs and challenges, and possibilities for adaptation or implementation both at local and international levels.

Through this workshop, participating economies were expected to: -

- Create awareness, exchange knowledge, maximize learning and retention, as well as discuss ideas on dementia prevention and risk reduction with cultural or local context across participating economies, policy development, and facilitators and barriers in implementation.
- Cultivate capacity building and empowering members of participating economies with regard to dementia prevention and risk reduction strategies through proposed steps forward.
- Facilitate networking and opportunities for international collaboration towards dementia prevention within academia, healthcare, policymakers and stakeholders of participating economies.

Figure 1: Group picture of workshop speakers and in-person attendees from participating member economies

DAY ONE

Tuesday, 23 May 2023

OPENING SESSION

1.1 Introductory remarks by Project Overseer

The project overseer, Assoc Prof Dr Ponnusamy Subramaniam (Malaysia) provided introductory remarks where he extended a warm welcome and gratitude to the guest of honor who officiated the opening ceremony, esteemed speakers, member economies and all physical and virtual participants for their presence and commitment in participating in the Regional Workshop on Dementia Prevention 2023. He emphasized the importance of dementia prevention initiatives to improve quality of life within ageing societies and consequently benefit overall health, societal, and economic outcomes.

The project overseer also highlighted the important role of the HWG within APEC in supporting the efforts towards dementia prevention and risk reduction to reduce healthcare and economic burden. He iterated the objectives of the workshop, and encouraged member economies to actively participate in the interactive workshops, grasp this amazing opportunity to enhance networking and collaborative work, maximize learning, and knowledge exchange with focus on dementia prevention.

1.2 Welcoming remarks by Organizer - Representative of Vice Chancellor, National University of Malaysia

Welcoming remarks were given by Prof Dr Suzana Shahar - Dean of Faculty of Health Sciences, on behalf of Prof Dato' Ts Dr Mohd Ekhwan Hj. Toriman, the Vice Chancellor, National University of Malaysia. National University of Malaysia is the organizer of the workshop, and she thanked APEC for funding and supporting this workshop under the APEC Project HWG 10 2021A. She welcomed all participants and thanked them for their efforts in being a part of this workshop. Prof Dr Suzana shared the current ongoing efforts of the Center for Healthy Ageing and Wellness, National University of Malaysia, towards prevention of cognitive decline and promotion of healthy ageing, such as *cosmos caudatus* ulam supplement development for cognitive function enhancement, multi-domain interventions such as WE-RISE™, and the AGELESS trial in collaboration with the WW-FINGERS network.

Also, she emphasized the importance of research in dementia prevention, dissemination of evidence-based knowledge, translation of research into practice, and the need to dispel myths and misconceptions surrounding age-related health. In addition, this workshop serves as a beacon of knowledge with input from esteemed speakers and experts from the field participating in the workshop. Finally, she emphasized that while dementia presents with formidable challenges, opportunities such as this workshop may be step forward to forging the path in enhancing dementia prevention and risk reduction efforts via networking and collaborative work within the member economies.

1.3 Opening ceremony remarks by representative of Minister of Health, Malaysia

Dr Mohd Azman Ahmad Yacob – Director of Medical Development Division officiated the opening of the workshop representing Dr Zaliha Mustafa, the Minister of Health, Malaysia. He opened by thanking APEC for the opportunity to bring together member economies in such an event seeing as dementia is a public health concern even more so in the Asia-Pacific region which has the higher population of ageing societies. Malaysia is postulated to be an aged economy by the year 2030 which is seven years away, to which Dr Mohd Azman posed the question 'Are we ready?'. He shared that there is an increase in geriatric patient load and that 'seamless integrated care' is an ongoing effort in several health clinics which have health services such as memory clinic and also comprehensive geriatric assessments to identify early signs or risk of dementia and enable early intervention. However, he articulated the need to continuously work towards early detection of dementia and dementia prevention to help families, society, healthcare and the

economy, especially within the lower-middle income economies and lower socioeconomic population where dementia is more prevalent. He stressed the importance of dementia prevention to prolong independent functioning and reducing years lived with disability and that it takes multidisciplinary efforts.

He acknowledged the APEC priorities and efforts in advocating and support for healthy ageing specifically 'Healthy Economies in an Ageing World'. He hopes that with the current tools and knowledge regarding dementia prevention, it can be infused into the community and that the community will be empowered to have more awareness, prioritize their health, and make informed lifestyle choices for dementia prevention and risk reduction and strive for economic stability. Finally, Dr Mohd Azman said this workshop is a valuable platform for member economies to share best practices and explore collaborative opportunities in strengthening preventive healthcare and dementia risk reduction. By leveraging scientific evidence and cultural relevance, Dr Mohd Azman wishes this workshop serves as a catalyst that towards optimizing dementia prevention strategies tailored to the specific needs and available resources in the diverse APEC member economies.

DAY 1 - PLENARY SESSIONS

1.4 Overview on Dementia Prevention; Modifiable and non-modifiable factors & its benefits

Professor Dr Kaarin Anstey, Director of Ageing Futures Institute, The University of New South Wales, Australia.

The speaker's plenary session was rich in evidence and knowledge regarding the current state of dementia, its risk factors, commonalities with other chronic diseases, risk assessment and approaches to risk reduction. She started the session with the global prevalence of dementia which are:

- All cause dementia: 697 per 10,000 persons
- Alzheimer's disease: 324 per 10,000 persons
- Vascular dementia: 116 per 10,000 persons
- Lewy Body: 33 per 10,000 persons
- Fronto-temporal Dementia: 11 per 10,000 persons

Additionally, approximately 20% of older adults over 70 years have mild cognitive impairment. Next, the speaker shared the benefits of slowing brain ageing, preventing accumulation of neuropathology as outlined below:

- Reduced incident dementia cases
- Increase cognitive capital
- Improve quality of life for individuals
- Reduce caregiver burden, health and care service costs
- Increase capacity for productive ageing
- Possibly increase time spent in paid employment

Regarding the risk factors of dementia, the speaker shared current update evidence citing The Lancet Commission Report on Dementia prevention, intervention and care, the World Health Organization Dementia Prevention guideline and more. Non-modifiable risk factors are genetics, sex at birth and region of birth, whereas modifiable risk factors are divided into policy/social level – education, air quality, accessibility to health, food and social determinants; and individual level – physical activity, dietary practice, management of chronic conditions and lifestyle activities (social, cognitive, physical). She shared that the quality of available evidence regarding dementia and risk

factors is variable and that types of samples vary so evidence from one study may not be applicable to another region, economy, or age group. It also must be kept in mind that time course for prevention is very long.

The economic burden of dementia was also discussed by the speaker and that the burden of Alzheimer's disease and related dementias is expected to grow rapidly with population aging, especially in low- and middle-income economies in the next few decades. The economic burden of dementia was an estimated USD2.8 trillion and expected to increase to USD4.7 trillion by 2030, USD8.5 trillion by 2040 and that by 2050, low- and middle-income economies would account for 65% of economic burden as compared to 19% in 2019. Hence it has been simulated those interventions that delay the onset of Alzheimer's disease by 5 years would lower prevalence of the disease by 41%, reduce dementia disease associated cost by 40%, and extends life by 2.7 years for those who eventually develop dementia.

Community and population level interventions defined as measures applied to populations, groups, areas, jurisdictions, or institutions should aim towards changing the social, physical, economic, or legislative environments to make them less conducive to the development or maintenance of the modifiable life course risk factors. In overview, interventions have been found to be highly cost-effective and/or cost-saving, particularly those targeting smoking, educational attainment, and physical inactivity. Individual and population level approaches were also shared by the speaker. Individual level approaches include targeting interventions to identify individuals at high risk of disease. They are then to be educated about their risks and supported to take steps to reduce it. Population level approaches involve interventions that aim to reduce everyone's risk by a small amount across society, rather than just targeting small populations who are at high risk.

The speaker concluded her session with several key points. First, a large proportion of dementia and cognitive decline is modifiable based on evidence from observational and RCT studies. She reiterated that modifiable lifestyle factors include physical activity, diet, smoking, unhealthy alcohol consumption, low cognitive engagement. On the other hand, treatable medical factors include depression, sleep apnea, diabetes, high cholesterol, chronic kidney disease, hearing loss, traumatic head injury (through prevention) obesity, and vascular risk factors. The effects of risk factors appear to be additive, indicating the value of addressing multiple risk factors. Lastly, risk reduction for promoting brain health is cost effective and has many benefits for healthy ageing and that both individual and population level approaches are needed to achieve risk reduction.

1.5 Multidomain approach on dementia prevention program

Assistant Professor Dr Francesca Mangialasche, Executive Director, Brain Health Institute, WW FINGER Global Scientific Coordinating Center; Division of Clinical Geriatrics, Karolinska Institutet, Sweden.

The speaker first introduced herself and stated that she will be delving deeper into the interventions, what is known and what direction we're heading to for the risk reduction and prevention of dementia. She shared the statistics that 416 million persons which equates to 22% of the 1.9 billion people aged 50 and over worldwide, are in the Alzheimer's disease continuum. She shed light on the recent updates of novel, encouraging results from clinical trials for anti-amyloid, disease modifying drugs for Alzheimer's disease namely Aducanumab (USA, UAE) 2021, Lecanemab (USA) 2023, and Donanemab, 2023 which are antibodies that can be administered and help in removing brain amyloid, which is a hallmark of Alzheimer's and may slow cognitive deterioration. The antibodies have been tested on people with early dementia and prodromal Alzheimer's and has reduced amyloid burden while improving cognition. The speaker shared her view that there is no silver bullet to treat dementia. Even though the disease modifying drugs may not be the final solution, it might be part of the solution in dementia prevention or risk reduction. However, that raises the issues of availability, eligibility, administration of monthly intravenous therapy, periodic MRI and radiologist consultation to detect side effects. So, it still raises the question of whether prevention should be only lifestyle modification, or can this component be coalesced taking into consideration how the infrastructure of that system would look like in terms of cost.

She also shared findings regarding the poor awareness of the public and healthcare practitioners who mostly assume that dementia is a normal part of aging, and it needs to be addressed at all levels. Misconception must be broken to make prevention implementation possible. She shared trends of reduced dementia occurrences that were mostly conducted in Western societies which showing that the newer generation of older people have less than expected occurrence of cognitive impairment and dementia. She highlighted that these economies have experienced improvement in lifestyle, improved education levels, better vascular care with improved survival rates, and this brings the focus on the importance of societal interventions. On the other hand, in Asian studies, there is an opposite effect where there is higher occurrence of cognitive deterioration and dementia which could imply the role of socioeconomic differences. This trend becomes more complex as we are a 'heads down generation' who are constantly staring at screens. This could mean that future generations are less likely to engage in physical activity, and real-life social interaction. Nonetheless, digital interaction keeps everyone connected even in geographically isolated area. Furthermore, healthcare can be provided via digital interaction for education, measuring cognition and risks, deliver interventions, and monitor efficacy. There is a need for more evidence on digital solution evidence, but it is now a part of our daily life and it needs to be measured.

To find the at-risk people can be done with clinical testing by searching for brain pathology through spinal fluid or blood testing. However, it is not a scalable approach. On a larger scale, measuring modifiable risk factors are more feasible with the available tools and easier to monitor over time. She also stated that there is a need to reflect on how to engage people in the conversation on how to decide that it is time to assess the risk and dementia prevention potential. This is even more important now that the biomarkers of phosphorylated tau protein are emerging which can tell the likelihood of developing Alzheimer's disease as compared to other pathologies. While more validation is required, there is a need to prepare as the development pace is rapid and may soon be a more scalable option. There is a need to be prepared for requests of such assessments and how to discuss the results.

She emphasized that every person across the life course is exposed to multiple risk factors, and there is no 'one size fits all solution'. There is a need for tailored approach and identifying the optimal time window to engage in preventive interventions. She then introduced the multi-domain Finnish Geriatric Intervention Study to Prevent Cognitive Impairment and Disability (FINGER) trial which involved healthy diet, exercise, cognitive training, social activities, vascular risk monitoring and regular health advice over 2 years. It was delivered in a stepwise manner and had both group and individual counselling to provide social engagement and tailored service. Findings of the study showed high adherence to intervention, with only 12% of dropout over 2 years, and no serious adverse events. Hence, it has shown feasibility as a multi-domain intervention and demonstrated that it is possible to bring in older people and create positive change of lifestyle towards dementia prevention, which is sustainable over time. The overall response of the intervention was positive with cognitive benefits, 20% lower risk of cardiovascular events, 30% lower risk for functional decline, 60% lower risk of chronic illness, better health related quality of life and health-economic benefits. There was also evidence to support that the multi-domain lifestyle intervention did benefit people who are at genetic risk of dementia – the APOE4 carriers or higher AD polygenic risk score. Hence, genetic risk factor should not be looked at as a dead end, that there is hope with lifestyle interventions. The FINGER model was also found to be helpful in secondary prevention of cardiovascular conditions.

She then shared the World-Wide FINGER Network (WW-FINGER) which is the first global network of multi-domain trial for dementia risk reduction and prevention which involves 50 economies comprising of researchers, clinicians, and advocacy groups from all over the world. It is a platform for learning and knowledge exchange that can be transferred for community sharing of best practices in the area of research. She also shared that WW FINGERS hopes to shorten the time taken for research findings to reach the society by sharing development or information as it emerges within the network. Next the speaker spoke about the development of FINGER 2.0 which will introduce a pharmacological intervention. In a feasibility study conducted among participants with prodromal Alzheimer's disease, the multi-domain intervention was provided with modification to the nutritional domain where the participants were supplemented with medical food. Overall retention rate (90.3%) and adherence to the intervention (62 to 95%) was observed to be high and encouraging, and participants said the social component was the most important component in their view as it helped in terms of motivation and goal-setting. Next, she shared the MET-FINGER which is combination of metformin and lifestyle intervention for dementia prevention as metformin is a potentially cost effective

and scalable intervention across economies. The study aims to create a proof-of-concept model for combining pharmacological and non-pharmacological intervention in multinational platforms. She further added on of the need to focus on new technology and digital solutions to monitor and reduce risk.

Following that she spoke about the importance of precision medicine and combination therapy for increase efficacy of multi-domain approaches and that it is never too early or too late. Regarding implementation, the speaker stressed that societal changes are needed to see a change in community mindset towards taking responsibility of their own health practices. She also explained how it is important to involve patients and the public to further understand the facilitators and barriers to implementation of lifestyle interventions prior to dissemination. She recommends that all stakeholders must come together in making prevention of dementia an area of focus within economies and digital platforms can be used to educate, and reduce stigmatization around dementia.

She concluded with some key messages - that multi-domain holds promising results in terms of effectiveness and feasibility, FINGER model should be further optimized for adaptation in different target population and settings, the next generation of trials should consider combination therapies (lifestyle + pharmacological + digital solutions) and that public and patient involvements are vital to successful prevention trials and implementation projects. Lastly, she recommends future research to account the impact of COVID-19 on risk profiles and prevention opportunities.

1.6 Presentation on ongoing dementia risk reduction within participating APEC economies

Participants representing the 12 member economies were invited to share an overview of dementia status and dementia risk reduction strategies, plans, practices and policies or information relevant to the workshop theme from their respective economies.

Australia

Presented by: Mr. Robert Day

The representative shared the prevalence pf dementia in Australia whereby approximately 401,300 people are living with dementia, while 27,800 people under 65 years are living with younger onset dementia. Dementia is the 2nd cause of disease burden and death for Australians and is the leading cause of death for females. The cost to annually manage disease burden of dementia is AUD3 billion. The representative shared that 43% of dementia disease burden in Australia is attributed to 6 specific modifiable risk factors – overweight/obesity (20%), physical inactivity (12%), impaired kidney function (8.4%), high blood glucose (7%), mid-life hypertension (3.2%), and tobacco use (2.2%). He highlighted the success in tobacco control measures which has significantly decreased tobacco use which is advantageous in the risk reduction of dementia.

Regarding dementia risk screening and assessment practice in Australia, there is currently no dementia specific screening program. Detection and diagnosis are managed by a combination of primary care physicians and specialist memory clinics and this process takes an average of 3 years.

Dementia policies in Australia:

- Latest National Framework for Action on Dementia concluded in 2019
- Royal Commission into Aged Care Quality and Safety (2021)
- Developing a new National Dementia Action Plan (2022-2023)

Current dementia specific programs are:

- National Dementia Support Program which provides a 24/7 helpline, information, counselling and peer support.
- Pathways and training for primary care

- Dementia specific respite
- Building aged care capacity – Training, dementia friendly design and reactive behaviors.

He also shared a single overarching preventive health strategy - National Preventive Health Strategy. The focus areas include:

- Reducing tobacco use and nicotine addiction
- Improving access to and the consumption of a healthy diet
- Increasing physical activity
- Increasing cancer screening and prevention
- Improving immunization coverage
- Reducing alcohol and other drug harm
- Promoting and protecting mental health

He concluded by sharing ongoing government funded projects namely the Brain Track App, Dementia awareness survey and Moving Pictures; as well as research and civil society led projects – Let's Chat, Island study, Wicking Institute MOOCs and Maintain Your Brain. These projects are aimed to to improve detection of cognitive impairment and dementia, as well as dementia care and brain health in the primary care context.

Brunei Darussalam

Presented by: Dr Amal Nadzirah Rosli and Ms. Siti Munawwarah Awang Tarif

The representative shared that an estimate of 1,574 people are living with dementia in Brunei Darussalam and 291 people are diagnosed with dementia according to the government's electronic health records. While there is no specific dementia policy, there are related policies in place:

- National Action Plan for Older People (currently being reviewed).
- Brunei Darussalam Multisectoral Action Plan for the Prevention and Control of Noncommunicable Diseases (BruMAP-NCD) 2021-2025 with a mission to prioritize and improve prevention, early detection and management of NCDs and its risk factors, and aims to reduce the probability of dying between ages 30-69 years from NCDs by 10% by 2025.
- Brunei Darussalam Mental Health Action Plan 2022-2025 which aims to further strengthen mental health system, policies and programs in a more coordinated, structured and cohesive manner involving health and non-health sectors

Risk factor reduction guidelines available in Brunei Darussalam are:

- National Dietary Guidelines for Healthy Eating Brunei Darussalam
- National Strategy for Salt Reduction Brunei Darussalam
- Nutrient Criteria of Foods and Beverages with the Healthier Choice Logo
- National Physical Activity Guidelines for Brunei Darussalam

The existing clinical guidelines on non-communicable diseases were also shared namely the Brunei Darussalam National Hyperlipidemia Guidelines 2022 and Brunei Darussalam National Hypertension Guideline 2019. The representatives also shared that there is currently no dementia risk screening implemented clinically. Completed cognitive screening in the community is conducted in-collaboration with Davos Alzheimer Collaborative (DAC). Dementia assessment is conducted by primary healthcare and referred to specialist clinic. This assessment includes identification of subtype, staging and referral to allied health professionals.

A study has been completed where screening of older people/ or those with risk factors for dementia was conducted to identify the presence of risk factors and potential symptoms of dementia. Findings unearthed that the

most common risk factors were hypertension (65.7%), high cholesterol (53.2%), diabetes mellitus (35.6%), overweight (28.4%) and kidney disease (17.3%). The most common warning signs or symptoms of dementia were misplacing things (42.6%), memory loss or forgetfulness (32.5%), visuospatial difficulties (24.2%), mood and behavior changes (20.8%).

The representatives also shared ongoing efforts and future plans for dementia risk reduction strategies:

- Reconciling available components of risk reduction according to guidelines
- Strengthen vascular and metabolic risk monitoring
- Continuous health promotion and education programs
- Continuous collaboration with stakeholders:
    - International network – Finnish Geriatric Intervention Study to Prevent Cognitive Impairment and Disability (WW-FINGERS) network
    - NGO such as Demensia Brunei on training for dementia caregivers
    - University – research and monitoring
- Encourage technological innovation
    - Identify culturally and locally suitable cognitive training apps

To conclude, the representatives shared the challenges faced in Brunei Darussalam and possible solutions:

Challenge	Solutions
Low level of health literacy on dementia	Strengthen socialization and marketing on dementia amongst public
Lack of compliance to guidelines and risk reduction programs/strategies	- Improve individual and stakeholders buy-in - Incorporate programs / strategies into whole-of-economy approach
Segmented risk reduction components	- All components to be integrated, structured and planned systematically - Coherence in policies
Lack of sustainable financing on dementia risk reduction strategies	Improve stakeholders buy-in
Lack of resources on dementia risk reduction strategies/programs	Encourage age-friendly community

Chile

Presented by: Dr Carolina Delgado and Dr Andrea Slachevsky, Faculty of Medicine, University of Chile

The representatives described the demographics of Chile with a population of 8,430,408 people and that despite being an upper middle-income economy, the socioeconomic inequality is very high. Chile is facing an advanced epidemiological transition, with an increased life expectancy, increase in the population over 60 years, and over 80 years, making Chile one of the economies in Latin America and the Caribbean with the most aged population. This has contributed to the increase in years lived with disability mainly in the poorest segment of the population. Dementia is one of the causes of years lived with disability, principally in women. The current prevalence of dementia is 7% among those aged over 60 years, 7.7% in women and 5.9% in men. There are 250,000 dementia cases and this is expected to increase by 200% by 2050.

Nearly 50% of dementia cases are attributed to modifiable risk factors. The highest risk factors are hearing loss, obesity, hypertension, and lower education, followed by excessive alcohol consumption, diabetes mellitus, physical inactivity, depression, and smoking. Lower education is a key factor as it is associated with higher systolic blood pressure, diabetes mellitus and higher multimorbidity which also contribute to increased risk of dementia. The representatives also shared that regarding efforts towards dementia prevention, there is no specific dementia program

in place however there is preventive annual examination for people aged 60 and over including assessment of cognitive, biomedical and functional status. There is also Elige Vivir Sano which is a multilevel system for prevention and healthy lifestyle, and public health policies to curb smoking and avoiding unhealthy diet. Furthermore, Chile is part of the LATAM FINGERS under the WW-FINGERS network. The representatives also shared two dementia policies Dementia Plan 2017 and Dementia AUGE-GES 85 2019 which entailed explicit health guarantee for diagnosis and management.

To conclude, the representatives stated that possible action to be taken would be to tailor public health policies and strategies for women and for the underprivileged and deprived populations. They also emphasized the need for dementia prevention in continuum. Lastly, they suggested the incorporation of technology and seeking the support of community leaders to solve gaps in implementation seeing as there is currently low action rates and low adherence.

People's Republic of China

Presented by: Dr Ju Jieyang

The representative first shared the government institution commission agenda for health and development – the Outline of Healthy China 2030 Strategy (October 2016) and China's 14th Five-Year Plan and 2035 vision (March 2021). She described that in the year 2009, the People's Republic of China started a new round of health sector reforms to provide health care and financial protection to the entire population. The reforms were part of a commitment to universal health coverage. As reforms unfolded, the Healthy China blueprint was launched in the year 2016 focusing on 'from treatment to health'. Its strategy is consistent with the Sustainable Development Agenda. Later in 2021 the 14th 5-year plan and 2035 vision blueprint were released. In health priority the plan will see a full-scale continuation towards Healthy China. The first aim is to build a strong public health system. Secondly, intensifying health system reform, thirdly improving health insurance system for all, and lastly promoting areas such as fitness for all and healthy lifestyle. The representative stated that the government has made significant investment in service delivery. Now, the service package has been expanded to better meet prevention and care needs. However, with the population aging rapidly and life expectancy rising to previously unseen levels, a growing number of families are caring for seniors with dementia.

She introduced the People's Republic of China's government policies focusing on aging and dementia prevention. The government has released several strategies focusing on targeting on health activities are carried out for the elderly and their caregivers. For example, the inclusion of family members to promote healthy lifestyles and improve their health literacy. This enabled the society to form an understanding and impression of early prevention and early diagnosis of dementia in an aging society. She further shared that the National Health Commission of China has assigned 15 provinces to carry out pilot works on the prevention and intervention of disability and dementia in elderly and have launched psychological care projects for the elderly in 1672 urban and rural communities across the economy. The projects provide psychological and cognitive assessments for 580,000 elderly people, classified intervention and referable services. Multidisciplinary healthcare personal is encouraged by the government to use different methods such as free clinical consultation, memory clinics and other means to strengthen the acknowledgement of people, to improve patients and family members' awareness of the diseases and to promote prevention, early diagnosis and early treatment.

She concluded by sharing that the People's Republic of China also participate in regional and global work in dementia prevention. In 2019, a joint declaration on the provision of necessary appropriate, comprehensive and continuous medical and long -term care for the elderly, including efforts to improve equity and medical and long -term care services were made to as part of the endeavor towards achieving universal health coverage. Inclusive services for the elderly are already in place towards promoting, preventing, and providing basic care services including effective approaches for mental health, especially for those living with dementia.

Indonesia

Presented by: Dr Amelia Nur Vidyanti and Dr Paulus Anam Ong

The representatives first shared that the prevalence of dementia in Indonesia is relatively higher as compared to other economies with reports from three areas of Indonesia (Bandung – 29.2%, Yogyakarta – 20.1%, Bali – 32.6%). Next, they introduced the dementia risk screening/assessment algorithms in Indonesia that is conducted in primary, secondary, or tertiary health care. At primary (Level 1) health services (PUKESMAS), the individual is screened for dementia symptoms, undergo clinical examination (cardiovascular, neurological assessment and utilization of AD8 or MMSE), if abnormalities are detected, they are then referred to a neurologist (Level 2 Health Service) or Memory Clinic (Level 3 Health Service). If not, they are to be reassessed in 6 months. At Secondary (Level 2) Health Services, referrals from Level 1 (PUKESMAS) are then directed to clinical examination for physical, psychiatric (Geriatric Depression Scale), cognitive (ADS, MMSE, CDT, and MOCA-INA) and laboratory (lipid profile, renal function, liver function, blood sugar, electrolytes CT scan) assessment. If abnormalities are detected, they are referred to the Memory Clinic (Level 3 Health Service), if not they are to be reassessed in 6 months. At tertiary (Level 3) Health Services, referral from Level 1 or Level 2 are assessed for clinical examination as in Level 2 with addition of liver function, folic acid, vitamin B12, thyroid function, ECG, and other specific tests as indicated. If dementia or MCI is detected, MRI/CT-Scan EEG, or lumbar puncture is administered as indicated. If dementia is detected, the type of dementia is then determined. If it is MCI, they are to be reassessed in 6 months at Level 3.

Following that the representatives raised the issue of limited studies and translation of research to practice in dementia risk reduction in Indonesia. However, previous research from Indonesia population, found that stroke patients with lower brain-derived neurotrophic factor level (BDNF) would likely to have post-stroke cognitive impairment which led to dementia. Therefore, an approach by using physical exercise to increase BDNF level and improve the cognitive performance has been applied in clinical practice and community service.

Next, Indonesia Dementia Policy and Risk Reduction Strategies were shared. Seven action steps to manage (promotive, preventive, and curative) Alzheimer's and other dementia as a risk-reduction strategy:

1. Campaign on public awareness and promotion of healthy lifestyle
2. Advocacy on human rights for people with dementia and their caregivers
3. Ensuring access and information of quality services
4. Early detection, diagnosis, and holistic management of cognitive disorders and dementia
5. Establishment of professional and sustainable system for strengthening human resource
6. Establishment of a cognitive health program as the main factor in achieving a smart life in the economy based on the life course approach
7. Implementation and application of research on cognition and dementia

The representatives also shared the dissemination process of dementia risk reduction practice in Indonesia that has been implemented by government in each level, i.e., central government through related sectors, provincial and district/city governments through related offices. Additionally, Alzheimer's Indonesia, an NGO and member of ADI, has been actively participating in raising public awareness, doing research, providing information, and advocating health policy related to dementia in Indonesia. Lastly, monitoring and evaluation on the technical aspects of the program at the implementation level is performed by the Commission for Elderly, universities, professional organizations, and NGOs. The outline of stakeholders involved in implementation and Dissemination of Dementia Risk Reduction Strategies/Practice in Indonesia was also shared beginning with the Government, to community (NGOs, academicians, professional organizations, elderly organizations, businesses, community groups), Kemenko PMK, and is then translated to programs or activities including cross-programs, cross-sectors and community empowerment.

They also shared the source of funding from dementia risk reduction practice – APBN (state budget) and APBD (local budget), international agencies, NGOs and community, private sectors and businesses. They highlighted that budget allocation for elderly health and rights from the Central Government, Provincial Government, and District/City Government needs to be increased and funding from international agencies should be sought more seriously and

intensively. The problems faced in implementation is the increase of prevalence in hypertension, diabetes mellitus, stroke, obesity, and physical inactivity, due to sedentary lifestyle, 'invasion' of unhealthy meals, and poor knowledge levels of dementia.

Finally, they shared solutions that improved efficiency in dementia risk reduction strategies/practice:

1. Raising awareness of dementia through webinars, talks, and counselling related to dementia
2. Mobile applications related to health and lifestyle (including nutrition and activities) such as Gizi Nusantara
3. Government funded elderly friendly village managed by the local officers in collaboration with healthcare professionals, and website/application for providing information for elderly (SILANI)

To summarize the representatives recapped that there is a need to raise awareness surrounding lifestyle modification as a good strategy to reduce dementia prevalence, more translational research and funding are needed to improve dementia risk-reduction strategies and for an economy action plan on dementia in collaboration between government, NGO, and professional stakeholders.

Malaysia

Presented by: Dr Ho Bee Kiau

The representative shared the Malaysian experience in overview of dementia status and risk reduction strategies beginning with the fact that Malaysia will become an ageing economy by 2030 where 15% of the population will be accounted for by older persons. The overall prevalence of probable dementia in Malaysia was reported to be 8.5%. The representative voiced that there is a need for an economy-wide dementia action plan as Malaysian elderly are at high risk of dementia. Older persons with 1 risk factor of dementia have increased risk of dementia by 1.2 times, 2 risk factors increase the risk by 1.7 times, and those with 3 or more risk factors have increased risk of dementia by 2.2 times over.

She next shared the Revised Dementia Action Plan 2023-2030 by the Ministry of Health which encompasses:

- Empowering Healthy & active communities
- Strengthening a sustainable healthcare & social support system for dementia
- Research, innovation and information sharing on dementia
- Strengthening monitoring and evaluation of health program for person with dementia

The framework of integrated, person centered care for people with dementia, caregivers and preventive measures was outlined by the representative. At primary health care level, older persons aged 65 years and above, with cardiometabolic risk factors, smoking history, obesity and memory complain is referred and screened for early detection of dementia. Those at risk are channeled to participate in promotive and preventive activities at community level. Those with mild cognitive impairment will receive non-pharmacological treatment – cognitive stimulation therapy, designing purposeful and meaningful activities, and psychoeducation. Those with moderate or severe dementia are directed to domiciliary or palliative care services. There is also a one stop center comprising of specialized memory clinics and general specialist clinic where referrals from private medical sectors and other specialist clinics are taken in. It first begins with a comprehensive multidisciplinary approach (pharmacist for medication, memory nurse, geriatrician, and other allied health members). Patients with mild dementia are directed to the aforementioned non-pharmacological treatments, while those with moderate or severe dementia will receive non-pharmacological and pharmacological treatments, domiciliary or palliative care services, or hospital/community-based services.

The representative also shared issues and challenges in the community including poor awareness and knowledge, ageism and stigmatization of dementia, avoidance or delay in seeking healthcare, inadequacy/inaccessibility to services and facility. There is also lack of trained human resource, and support staff incompetency in addressing behavioral or lifestyle change, and lack of coordination between stakeholders. She concluded that multi-domain lifestyle

intervention is vital in the efforts towards reducing the risk of dementia and integration, coordination and collaboration between public sectors, private organizations, & NGOs is crucial.

Peru

Presented by: Dra Mariella Guerra

The representative described that in Peru where older adults aged 60 and over make up 12.7% of the economy's population. The prevalence of dementia in Peru was established at 9.4% in urban strata and 6.5% in rural strata, with dementia being more prevalent among women than men. She further shared that 56% of dementia cases in Latin America are attributed potentially modifiable risk factors across the life course which is much higher as compared to high income economies. The identified factors were at early life - low education level, midlife – hypertension, obesity, hearing loss, and later life – smoking, depression, physical inactivity, social isolation and diabetes mellitus. She stressed the importance of addressing modifiable risk factors in Latin America.

In Peru, there are risk factors of dementia which are within the 'poverty dimension'. She delineated that 15% of the population are experiencing chronic malnutrition which is linked to obesity, and 36% of houses are without access to drinking water. Additionally, 25% have no health insurance and are unable to seek healthcare services when needed. In terms of low education level, 1.3 million Peruvians aged over 15 lack reading or writing skills and they cannot be evaluated or screened due to limitation in outcome measures. More critical, 27.5% of the population are experiencing income poverty. Head injuries are also a vital risk factor in Peru as the statistics show 7 out of 10 Peruvian women are victims of violence (any type of violence) with 30% experiencing physical violence including head trauma. In terms of excessive alcohol consumption, there is 10% of alcohol dependance, and 30% of alcohol abuse in Peru.

The representative described that there is a proportion of health personnel including doctors who are not aware or trained in the issue of dementia, translating problems in prevention, diagnosis and treatment in Peru. Hence there is a need for training to be conducted for the general community including health care professionals, caregivers and members of the general public. She also shared that there is no economy-wide plan for dementia and that dementia is not recognized as a public health priority in Peru as of yet. Lastly, she also shared that anti-dementia drugs are not feasible for prescription in Peru due to its high cost and absence of central funding.

The Philippines

Presented by: Dr Katherine Ann San Diego and Ms Julie Rose Dimaguiba

The representatives began by sharing population statistics of the Philippines and the prevalence of dementia which was 10.6%, almost twice the crude estimated prevalence of dementia in Southeast Asia (5.8%). They also shared the trends in neurology research which has increased tremendously over the last decade. Regarding the economy's current and total health expenditure, its per capita health spending has increased from 2019 to 2020. Additionally, there is still significant reliance on out-of-pocket spending. As of the latest data by the Philippine Statistics Authority, the average annual family income is PHP313,000 and the average annual family expenditure is PHP239,000, of which only 2.7% is being allocated for health. The Longitudinal Study of Ageing and Health in the Philippines (LSAHP) showed that 60% of older persons reside with one child, 9% live with their spouse only, 13% live alone and 61% had children living nearby. They hypothesized that there may not be a keen sense of urgency from the government regarding ageing needs since most older persons were residing with one of their children or had children living nearby.

The representatives shared the findings of a scoping review tackling the current status and gaps in dementia care in the Philippines. Consistent with the findings of earlier scoping reviews on the status of various neurological disorders within the economy, gaps in dementia care include limited published local data, high healthcare costs, inadequate health financing, and limited manpower and training. In terms of manpower, the representatives shared that there is only 1 neurologist per 221,000 population, 1 psychiatrist per 263,000 population, and 1 geriatrician per 703,000

population, majority of whom practice in the National Capital Region, highlighting the lack and uneven distribution of healthcare professionals trained in providing care for persons with dementia. To conclude they iterated that moving forward, dementia care in the Philippines can be improved by increasing awareness on the problem of dementia, lobbying for increased healthcare coverage, ensuring availability and affordability of the necessary diagnostics and therapeutics, and providing adequate training programs for healthcare professionals and caregivers especially in rural areas. Addressing these gaps can allow elderly Filipinos with dementia to attain the quality of life they deserve.

The Russian Federation

Presented by: Dr Svetlana V. Shport

The representatives shared that the prevalence of dementia Is expected to rise from 2 million people in 2022 to 4 or 5 million people by 2050, given the increase in ageing societies by proportion and life expectancy. In the Russian Federation, there is a comprehensive interdisciplinary and interdepartmental program for prevention, early detection, diagnosis, and treatment of cognitive disorders in the elderly and very old persons until the year 2025.

This comprises of:

- Timely detection of non-dementia forms.
- Improvement of care for persons with dementia.
- Stages of organizing care for patients with cognitive impairment:
  I. Pre-medical
  II. Primary medical care
  III. Specialized care
    - Memory impairment units in the medical network;
    - Provision of care in the Federal and Regional scientific centers;
  IV. Long-term medical care and assistance (long-term residence homes and wards in multi-specialty hospitals, social care at home).

At pre-medical stage there are information boards/monitors devoted to means of prevention and early detection, printed materials on prevention and early detection, schools for patients and caregivers in medical or social institutions, federal and regional information public health campaigns, and the use of mass media or internet sources for knowledge dissemination. Moreover, family or caregivers are taught to pay special attention to specific complaints and utilize caregiver administered or self- administered cognitive assessments.

They further shared that at medical stage, the objective is to increase the duration of healthy life for the elderly, increase the accessibility of medical and social care, taking into account their needs. There is also a questionnaire in place for persons aged 65 years and above designed to detect chronic non-infectious disorders, risk factors, and frailty in the course of prophylactic examination. Regarding cognitive function, a detailed look is taken at complaints and anamnesis, targeted examination of the patient, and assessment of the clinical presentation. According to the results –subsequent tactics for examination besides the outpatient facility is determined. Identified symptoms are also taken into account at the time of prophylactic counseling.

The representatives also outlined the training process at each stage as outlined below:

I. **Pre-medical stage**
   - Training programs for medical psychologists

II. **Primary medical care**
   - Continuing education on specialized topics for nurses and medical doctors of various specialties
   - Training primary care medical doctors to use the screening scales, to identify and correct the modifiable risk factors.

III. **Specialized care**
   - Programs for professional retraining in geriatrics, neurology, and geriatric psychiatry

IV. **Long-term medical care and assistance**

- Programs for training specialists in care-giving, social workers
- Educational programs for social workers and family members

They also shared the memory clinic which is a rehabilitative ward for day-time care for the elderly with early manifestations of cognitive deficit – mild cognitive impairment (MCI). The 6-week neurocognitive rehabilitation program consists of cognitive training, therapeutic physical activity, psychotherapy and pharmacological therapy.

Lastly, the representatives enlisted several needs to improve dementia care:

The Suggestions for improvement:

- Setting up of federal psycho-geriatric centers
- Provision of highly qualified hi-tech care
- Development and carrying out of scientific research and translation to clinical practice
- Realization of interdepartmental interaction
- Development of professional education programs at various levels, and education programs for patients and caregivers
- Setting up of dementia registry

Singapore

Presented by: Dr Kwong Hsia Yap

The representative of Singapore shared intervention and updates of the ongoing The SINgapore GERiatric Intervention Study to Reduce Cognitive Decline and Physical Frailty (SINGER) which is a part of the WW-FINGER network. SINGER is a two-year randomized controlled trial that aims to evaluate the effectiveness of multi-domain lifestyle interventions in reducing cognitive decline and physical frailty in at risk elderly in Singapore. The SINGER study will recruit 1200 senior participants who are at risk of developing cognitive decline and dementia. Participants will then be grouped into self-guided intervention (SGI) or structured lifestyle intervention (SLI). Assessments will be conducted at baseline, 12th month and 24th month.

SINGER has been adapted from the FINGER (Finnish Geriatric Intervention Study to Prevent Cognitive Impairment and Disability) to the Singaporean context and comprises of:

- FINGER based Exercise program
- FINGER recommended Cognitive training
- FINGER diet with a few local adaptations
- Local adaptation for vascular risk management

The intervention includes fairly healthy seniors who may still have some modifiable risk factors of dementia. The SGI group will receive online resources in form of videos and reading materials on cognition, diet management, and exercise. Yearly monitoring of vascular risk factors is carried out at assessment follow ups. The SLI participants will receive cognitive group talks (Zoom platform), computerized cognitive training and exercise (from supervised to independent training), group and individual diet talks (Zoom platform) and vascular risk management by yearly monitoring and direct management of vascular risk factors by study clinicians. The study is carried out in partnership with regional and district agencies, economy-wide movements, private organizations and community and social organizations. The representative shared the feedback which was mostly positive regarding the ongoing interventions with most stating it is easy to understand, confidence to go from supervised to independently carrying out tasks and improved knowledge.

The representative ended her session by sharing the relevance of SINGER in contributing to risk reduction efforts. First, it will provide evidence for efficacy of lifestyle interventions with local adaptations and evidence for cost-effectiveness. It also fosters partnerships with community, public and private stakeholders enabling avenues for

implementation and dissemination. Lastly, it also enables upscaling and translation of research to real life practice in the community.

Thailand

Presented by: Dr Arada Rojana-udomsart and Dr Nithirat Boontanon

The representatives begun by sharing that the geriatric population represent 18.8% of the total population in Thailand. In 2015, a Thai public health survey found the prevalence of dementia to be 8.1% among the elderly (6.8% in male, 9.2% in female). However, in 2023 the percentage of service recipients with dementia in public health service was only 0.1% (57,686 people). They also shared the proportions of patients and types of dementia registered at the Neurological Institute of Thailand. Alzheimer's disease was the highest, followed by unspecified dementia, vascular dementia, Parkinson disease dementia, and lowest – frontotemporal dementia.

They further shared that some measures have been taken to transform research into policy:

- Control and prevent non-communicable diseases – Diabetes and hypertension control in middle aged and elderly population
- Smoking and alcohol reduction - Tobacco Products Control Act and Alcohol Control Act
- Depression management - Screening and treatment of depression, especially in the elderly people
- Social engagement - Promoting senior citizen clubs and elderly schools in the community
- Promotion of physical activity - The KAOTAJAI project and health promotion budget

The dementia prevention policy in Thailand is divided into two parts, promoting and preventing physical deterioration in the normal group; and to provide care services to prevent progressing from MCI to dementia and to ensure continuity of care for dementia patients. The policies are not limited to dementia but provide comprehensive health services to all elderly people in the economy.

2023 – The Year of Thai Aging Health:

P&P	• Making a 6-dimensional Wellness Plan (Good nutrition, Good physical activity, Good brain, Good mood, Good oral health and Good environment) • Promote health activities in the senior clubs • Geriatric diseases screening for all elderly people
CARE	• Brain stimulation program for people with MCI • Establishment of geriatric clinics in all hospitals (Focusing on supporting 3 important diseases: depression, dementia and falls) • Long term care in communities

The representatives also shared several ways seniors have been encouraged to participate in cultural events. First the Songkran festival - the act of pouring water on elders during the Songkran festival holds significant cultural value in Thailand as it promotes social participation and reverence for the elderly. Next, religious activities - elderly people regularly participate in social activities through their respective religious practices. Also, community volunteering - active elderly volunteers in the community, serving as village health volunteers or offering community assistance, exhibit improved physical and mental health. The stakeholders involved in dementia risk reduction strategies are village health volunteers, health personnel, local administrative organizations, communities and civil societies. Lastly, the representatives concluded that dementia care in Thailand encompasses health promotion, disease prevention (physical activity, managing depression, reducing alcohol, smoking cessation, social inclusion wellness plan), screening and diagnosis (Mini-Cog, MMSE-Thai, MoCA, geriatric clinics), treatment (MCI – Brain stimulation program; Dementia – geriatric clinics, social services, long term care services) and continuation of care at home and in the community.

Viet Nam

Presented by: Dr Nguyen Tran To Tran and Dr Nguyen Thi Thanh Binh

The representatives shared that older adults aged 60 years and above make up 12.8% of the Viet Nam population and dementia is prevalent at 5% to 9.4% within the community and 24.3% in hospitals. They then shared that the dementia risk screening and assessment practices in their economy. Screening tools used include the Mini-Cog, Mini Mental State Examination, and Montreal Cognitive Assessment. Other assessments administered are medical history and clinical examination, laboratory tests for biomedical profiles, CT scan, MRI, assessment of neuropsychiatric symptoms, and functional status. In terms of translation of research to practice for dementia risk reduction, there is future plans in place to dementia screening in older patients at primary care level. There is also a need to explore the required knowledge and skills of dementia caregivers and to build interventional programs. Regarding dementia policies in Viet Nam, the representatives shed light on the first Viet Nam National Dementia Conference in 2018 which established dementia as a health priority and Viet Nam's First National Dementia Plan. They further added that dementia policies may be published in 2025.

At present, the WHO guideline for risk reduction of cognitive decline and dementia is being referred to and dementia risk reduction strategies are carried out by neurology and geriatric specialties. This will soon be implemented in primary care settings. They also shared on-going efforts for dementia risk reduction such as promoting dementia awareness via social media and conducting studies on dementia and caregivers (in collaboration with international institutions - Vietnam Alzheimer Network Project). Future plans for dementia risk reduction also include more social media programs involving people with dementia, caregivers and social services, and increasing capacity for dementia diagnosis and care through medical education, dementia clinics, and local health services. Stakeholders involved in implementation and dissemination of dementia risk reduction strategies or practice are government agencies, professional societies, academic institutions, healthcare providers, and mass media. The representatives shared that in 2015 the cost related to dementia was USD960 million and is expected to be USD1.75 billion by the year 2030, and up to 60% of unpaid family caregivers. The current problems faced in implementing dementia prevention strategies with the community is lack of dementia knowledge and are unaware about dementia clinics. In terms of healthcare providers, there is a misconception that dementia is an untreatable disease, lack the capacity for diagnosis and treatment, and lack of support systems such as nursing homes and social workers. The representatives suggested that dementia policies with emphasis on screening, diagnosis and management, and also health and social insurance could improve efficiency in dementia risk reduction implementation. Raising awareness and increasing support for care services would also benefit the current needs pertaining to dementia.

DAY 2- PLENARY SESSION

2.1 Cognitive continuum, screening instruments and early detection of vascular cognitive impairment.

Associate Professor Dr Nagaendran Kandiah, Director, Dementia Research Centre (Singapore), LKC Medicine.

In overview, the speaker shared valuable insight into cognitive continuum and pathobiology, screening tools focusing on multilingual population, early detection of vascular cognitive impairment, a case discussion and findings from Dementia Research Centre (Singapore). The trajectory and key differences from normal ageing to subjective cognitive decline, mild cognitive impairment and finally dementia were discussed. The speaker also highlighted that patient are increasingly presenting to the clinic at the stage of subjective cognitive impairment and mild cognitive impairment which emphasizes the need for tests that can detect milder forms of cognitive impairment.

An insight into understanding pathobiology and the important role it plays in prevention of dementia was explained. This included biomarker profiles and categories and the progression of amyloidosis over the course from

pre-clinical stages of Alzheimer's disease to severe clinical stages. The gold standard biomarkers for AD through PET scan and cerebrospinal fluid was also illustrated. He stressed that early detection of MCI provides the best opportunity to prevent dementia.

Next, he shared reasons for late diagnosis of cognitive disorders. From public perspective there is a need for more awareness on early diagnosis and young onset of disease. For primary care barriers there is a lack of diagnostics and care training, infrastructure to perform case findings and lack of time-priority on chronic conditions namely diabetes mellitus and hypertension which needs bundled care. At tertiary centers, diagnostics are non-structured and non-uniformed and there is inadequacy of management due to lack of common care algorithms.

Screening of cognitive symptoms include episodic memory, attention span, executive function, visuospatial function, dysphasia and agnosia. Behavioral symptoms include frontal symptoms – interpersonal behaviors, change in character and disinhibited behavior; and psychotic symptoms – delusions, hallucinations and night time agitation. Individuals aged 65 years and over, with family history of dementia, post-stroke patients (specific attention to mild stroke) and patients with vascular risk factors (diabetes mellitus, chronic hypertension and hyperlipidemia) are prime candidates to undergo cognitive evaluation. Screening tools, scoring, interpretation of assessment and availability in multilingual populations were discussed for the AD8 dementia screening interview, Mini Mental State Examination (MMSE), Montreal Cognitive Assessment (MoCA), Mild Behavioral Impairment Checklist (MCI-C), and Visual Cognitive Assessment Test (VCAT).

The speaker shared ongoing efforts in the Dementia Research Centre (Singapore) which aimed to identify biological mechanisms in Asians that results in cognitive disorders, develop diagnostic modalities and pathways for early detection of prodromal dementia and dementia, and to develop intervention strategies to prevent dementia. Approaches include prodromal dementia cohort with neuropsychological quantification, cutting-edge neuroimaging and state-of-the art blood-based biomarkers (BIOCIS), digital platforms and artificial intelligence, as well as biomedical engineering.

To conclude, the speaker accentuated the need to detect earliest stages of cognitive impairment, SCD and MCI for early recognition, the need for sensitive screening instruments for multilingual, multicultural societies, the need to incorporate cognitive evaluation with biomarker quantification, and that cerebrovascular disease presents with executive and behavioral symptoms, representing an entity that is potentially reversible.

DAY 2 – INTERACTIVE WORKSHOP SESSIONS

Wednesday, 24 May 2023

2.2 Harmonization of the multi-domain approach to dementia prevention & risk reduction.

Lead & Moderator: Dr Resshaya Roobini Murukesu, APEC research contractor.

One of the objectives of this dementia prevention initiative was to develop an educational packet which outline recommended strategies targeting the modifiable risk factors of dementia. The packet includes current evidence regarding a multi-domain lifestyle approach aimed to reduce the risk of cognitive decline and dementia. This educational guideline was developed taking cultural context into account to facilitate implementation for dementia risk reduction strategies in the Asia-Pacific region. Hence, in this harmonization workshop, the current output of the multi-domain educational packet for dementia risk reduction and prevention was shared. To gain perspectives from the member economies regarding their current dementia prevention climate, the workshop was interactive and gained input to strengthen this packet for implementation, with emphasis on cultural relevance and feasibility within the APEC economies. The workshop was also a platform where member economies shared their experiences, successes and challenges in the respective domains of dementia prevention. All three invited speakers also engaged in knowledge sharing and discussed interesting findings of evidence with the participants.

The workshop first shed light on the encouraging evidence regarding effective lifestyle modifications and interventions and the potential to improve cognition while delaying cognitive and functional deterioration in older adults. Next the multi-domains included in the educational package which outline the recommended strategies for the modifiable risk factors of dementia namely cognitive oriented interventions, exercise and physical activity, nutrition and diet, vascular risk management, and social engagement were presented and then discussed. Most participants had some knowledge regarding a multi-domain approach, as the concept was discussed in Day 1 of the workshop during the plenary sessions. Participants shared some ongoing programs or efforts for lifestyle-based interventions. However, several challenges and needs were raised tailored to the needs of their respective economies. Beginning with a positive note, several economies shared their experience and ongoing dementia prevention activities. Some are in resonance with evidence-based recommendations such as community-based projects, and addressing the cognitive, physical, nutritional, vascular risks and social domains. A few examples shared were intergenerational activities which include children or grandchildren, use of traditional games, incorporating local music, dance and songs for interventions, and engagement via community centers dedicated to ageing societies.

However, there is still a need for more culturally and linguistically sensitive interventions which would be more relatable or adaptable to local context. The participants also agreed that dissemination of public education materials such as the multi-domain educational packet should be in layman local languages to enable more effective transfer of knowledge. Burdened healthcare systems were also highlighted. There is a lack of human resource in many healthcare systems. Health workers in primary healthcare are currently faced with multiple challenges in patient management. A suggestion was to train allied health volunteers, family members, social workers or peer leaders to facilitate dementia prevention activities. Another predicament was that at present most of the interventions are carried out in primary health clinics. These clinics may not be accessible to all especially those in rural areas or who have mobility challenges such as transport, functional disability or financial restrictions. Furthermore, only individuals who are already facing impairment are entitled to such interventions. From a policymaker standpoint, the issue raised was that while the evidence for multi-domain is encouraging, what is lacking is information regarding the cost of developing or disseminating such strategies. It is imperative that future research include costing or cost-effectiveness models to convince policymakers in order to translate research findings into implementation at public health levels.

At the end of the harmonization workshop, it was hoped that these recommendation strategies (Figure 2) will facilitate implementation for dementia risk reduction in the APEC regions. The participants were in agreement and

supported the multi-domain approach but also there is much to be done for efficient intervention adaptation, implementation, and sustainability within the respective economies.

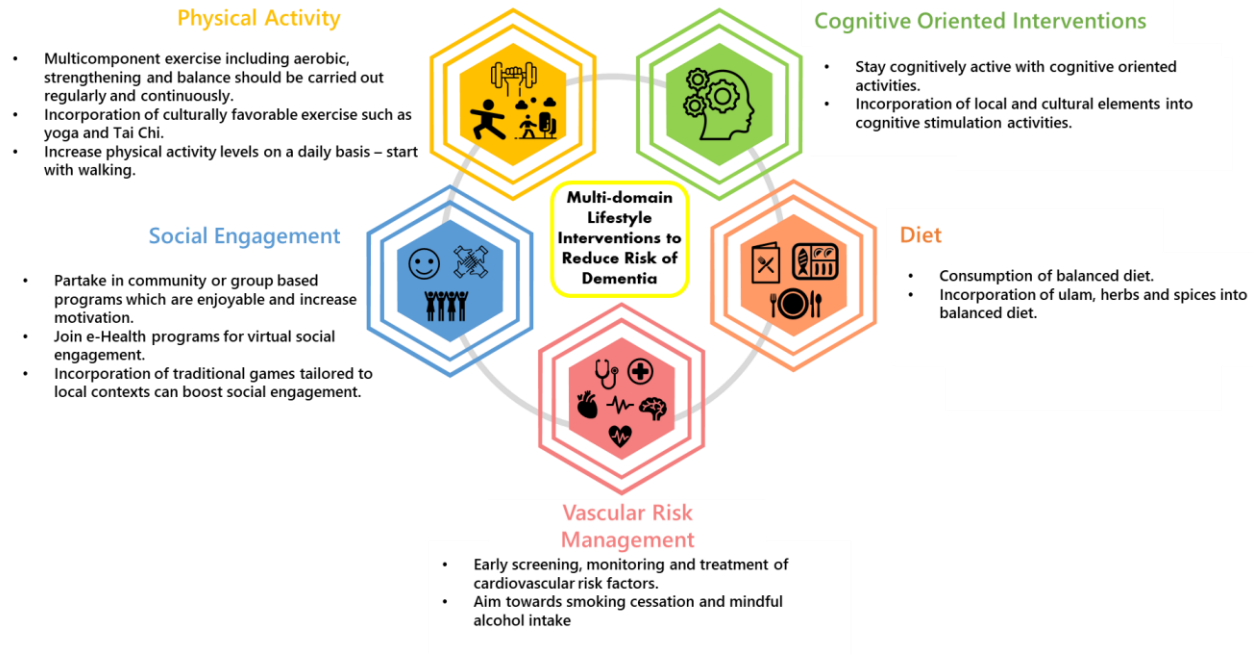

Figure 2: Recommended strategies to increase cognitive activity levels to reduce risk of cognitive decline and dementia.

WORKSHOP SESSIONS LED BY EXPERT SPEAKERS

Subsequent workshop sessions on Day 2 were led by the expert speakers. The format of the workshop - participants were asked to form three groups based on their affiliations. These three groups were made up of clinicians, researchers, and policy makers. The speakers provided themes for discussion for their respective sessions and a representative from each group was asked to present a summary of key points.

2.3 Socioeconomic inequalities – Addressing challenges for implementation

Lead: Prof Dr Kaarin Anstey

Prof Dr Kaarin stated that the purpose of the workshop was to give everybody an opportunity to explore a lot of the comments and discussions that have come up, particularly in relation to implementing risk reduction within local contexts and economies with the different challenges. In her session, the following questions (enlisted below) were directed to the three groups to discuss social inequalities and potential barriers and challenges to implementing dementia risk reduction.

1) What are the barriers and enablers to implementing dementia risk reduction for your context?
2) What level of priority is dementia risk reduction being given in your field?
3) Are there any low hanging fruit in your context, i.e., some things that can be done quickly to reduce risk.

Summary of Discussion

Clinician's Perspective

The representative shared that based on discussion within the group, the lower middle income APEC economies are still struggling with essential services. Lower middle-income economies are still struggling with disease control and prevention, infectious diseases including tuberculosis and HIV, maternal and child (under 5) health, maternal mortality and many more. Hence the priority on dementia prevention strategies is still very low in most economies. Next, several economies are lacking in clinical practice guidelines, and direction from administrators on how to go about important areas. This brings the point of policies and budget. Budget is a big issue and is a limitation for strategy implementation. Another issue is the lack of human resources and a lot of multitasking is taking place by healthcare personnel, so the concentration in risk reduction of management of dementia is inadequate.

The representative voiced the need for better integration in healthcare systems to engage primary healthcare and empower them with knowledge to garner interest in dementia prevention. A suggestion was to provide attachment opportunities at university for periods of two to four months to gain knowledge regarding strategies for dementia risk reduction to enhance the service delivery systems and to increase community engagement. Efforts in Thailand were shared where they have 'village health volunteers'. The government provides incentives to the village health warranty where health promotion tasks are outsourced to trained members and do not rely completely on primary healthcare providers hence reducing the burden of insufficient human resource in clinical areas. Dementia risk reduction strategies can be carried out via such routes to increase awareness and empower the community.

Researcher's Perspective

The representative acknowledged that there are more barriers than enablers beginning with insufficient evidence which is culturally appropriate and tailored to lower-middle income economies. Even though there is evidence, it has not been translated into recommendations for implementation in terms of when, on whom, and at what point in lifetime. Second barrier was translation to policy which they felt is the biggest challenge in terms of political will and funding. With the ongoing struggle in low-middle income economies to deal with existing health challenges, it is unclear if the ageing population and/or dementia are a priority, which hampers translation of risk reduction strategies into policy. Third challenge or barrier is the lack of end user support, is the community keen to receive preventive interventions for dementia? This could be due to lack of awareness of dementia as a preventable condition. Consequently, there is not a felt need for dementia to be prevented in the community. Some existing evidence is not holistic in terms of addressing comorbidities and conditions and there is a lack of awareness not just within the community but also among stakeholders including primary health care, and policymakers. The lack of awareness at all levels needs to be addressed and the lack of clarity on how to implement strategies as well. Another challenge raised was the insufficient sharing of resources. The representative said there is an issue where the knowledge or tools received by researches from proceedings such as conferences or workshops are not shared with the relevant bodies, and that there is a gate keeping mentality which dampens the implementation of prevention strategies. They felt that the nature of dementia as a syndrome may also be a challenge in implementing prevention as the effectiveness of such strategies are not demonstrable as quickly as other conditions, hence it is not convincing.

There is also a lack in locally tailored interventions which would be culturally feasible. For example, evidence recommends Mediterranean diet for cognitive health but it is not culturally or economically feasible for generality within lower-middle income economies. There is also a need to bring in the industry because researchers may not have the best tools to market their findings in a way that would capture the public attention and interest. A suggestion was to pair up with marketing industries to bring about good interventions tailored to local needs and suitability such as targeting nutraceuticals.

Additionally, current available dementia prevention interventions are medical and not addressing the social science aspect of it. Multidisciplinary research in terms of prevention and behavioral elements of prevention are not often addressed thus sustainability of such interventions cannot be evaluated. Another barrier is that when high risk

population are targeted for prevention and screened, there is no capacity to provide care post screening. There is a need to bring multiple stakeholders who are working in the dementia space to support dementia prevention strategies. The low-hanging fruits would currently be to disseminate and implement feasible interventions and holistic health screenings at community centers such as the Senior Citizen Activity Centers which are available in Malaysia.

Policymaker's Perspective

The representative acknowledged the barriers raised by the clinician and researcher groups regarding shortages in workforce, manpower, finances, and infrastructure which are a common challenge in every economy to different scales and proportions. They feel that the myths around cognitive decline and dementia being part of normal ageing is a really big barrier, both to the government taking action and the individuals wanting to seek help. Stigma surrounding dementia and the perception that it's a form of mental health disease, or 'craziness', just demonstrates a lack of education. Health literacy is a mutual challenge and particularly for parts of communities that have lower education. Ageism is another stigma being faced and a focus on health interventions that are to be implemented in younger stages of life are seen as a barrier. Poor detection and diagnosis of cognitive decline and dementia is also a challenge. A suggestion was to work with other governmental agencies that are willing to work across silos to make a change. The regional dispersion of services is a challenge, particularly for some of the member economies that are represented at the workshop, that are very large geographically and where services might not be equitably available around the region. There is also a challenge with multilingual, multicultural communities and the need to make services accessible to all parts of the community.

In terms of enablers, there was discussion of the possibility in terms of private -public partnerships, but that would require some seed funding from government to facilitate. Policymakers also talked about naming dementia as a priority in the health system and driving change through that. The potential benefit of working with media to change perception and reporting, and also working with trusted community leaders, religious leaders within member economies working with NGOs or civil society organizations that are trusted by the people was also spoken about. With respect to the second question, a lot of member economies already have guidelines in place around diet and physical activity however the challenge lies in getting people to adopt them and maintain those changes. Behavioral science could be viewed as an enabler. Empowering older people to exercise and claim their own rights in terms of their health care needs, and incorporate cognitive screening into physical screening as an enabler.

In terms of the level of priority, they felt it is fairly low across the board in terms of dementia specifically. So, while there is an interest in preventative health generally, but specific investment or action on dementia are not available just yet. There is also competition for interest amongst policy makers, even in the health space in terms of infectious disease, other forms of non-communicable disease, mental health, and that being a challenge in terms of priority for dementia. A low-hanging fruit, from policymaker standpoint would be public information campaigns to address the stigma and build awareness and health literacy and different health promotion activities that could be undertaken. There was a sense that vascular dementia might warrant or be a space for earlier intervention because it's an easier disease to treat. Drawing on the example from Singapore, of using clinical guidelines to drive greater adoption focus in primary care on detection and treatment of dementia.

Speaker's Remarks:

The speaker hoped that the excellent output from the workshop would be collated as it may help raise the priority of some of these issues and given a common voice to things like putting dementia on a health priority list, addressing stigma and ageism related to dementia, and improving dementia literacy; and that some of the efforts can be undertaken at governmental level.

2.4 Impact of the COVID-19 pandemic on dementia prevention strategies

Lead by: Assistant Professor Dr Francesca Mangialasche

Assist Prof Dr Francesca began her workshop session by reiterating the topic discussed on Day 1 specifically about how although the COVID-19 pandemic is now resolved as a major global acute crisis, it is still lingering around in terms of the consequences for people the suffered from COVID-19 and also for those who were exposed to extended periods of restriction and isolation measures. This being a more pressing issue for the older persons population as they were most vulnerable not just to morbidity and mortality, but also mobility and social distancing restrictions. She then shared several questions (enlisted below) and asked each group to pick one that they felt spoke more to them and that it would be insightful to understand each group's point of view.

How to deliver preventive interventions for dementia in post-pandemic landscape?

1) Which new factors have emerged as risk/protective factors for dementia? Both related to COVID-19 disease and pandemic related restrictions.
2) For already established risk/protective factors for dementia, what major changes can be expected or identified?
3) Policies related to older adults during the pandemic: How can they evolve?
4) Digital tools: Can they be leveraged to deliver and monitor dementia risk reduction?

Summary of Discussion

Clinician's Perspective

The representative from the clinician group stated that in their opinion, COVID-19 was a double-edged sword in terms of risk and protective effect for the elderly population. It has been observed within the community that people are not shying away from areas comprising of large crowds including hospital and clinics. Hence, a lot of usual clinic appointments have been missed and consequently people stopped taking medications even though they have exhausted their supplies. The subsequent after effect is now an increase in non-communicable diseases which are poorly controlled and adds on to the risk of dementia in the general population. Another observation was that most people who were infected with COVID-19 are suffering from neurological disorders. Neurological complications had occurred during period of infection and a large number of patients are still dealing with neurological symptoms that did not resolve post COVID including mild cognitive impairment.

On the positive side, the representative shared that the elderly are taking on technology better than before. Those who used to shy away from using devices such as smart phones are not engaging in social media and keeping socially connected with apps such as WhatsApp, Instagram and TikTok. These platforms enabled the formation of small pockets for communities to share health-related information and keeping socially engaged much more than pre-pandemic times. This may contribute to preventing dementia in terms of risk reduction., Furthermore, the more tech savvy the older population are, the keener they are to take part in virtual healthcare. The community are now more forthcoming in utilizing technology and virtual platforms such as Zoom to access virtual talks which can be helpful in raising awareness of dementia. Communication between healthcare personnel and patients are improved as well. However, it may also lead to spending more time indoors and hinder physical socialization or physical activities, that comes again as a risk factor of dementia.

In terms of digital tools and how it can be leveraged the representative shared how clinicians have tried moving on to digital platform, such as virtual memory clinics. Unfortunately, some tools are difficult to carry out virtually such as scoring of outcome measures such as Mini Mental State Examination (MMSE) and Montreal Cognitive Assessment (MoCA). Visual and hearing impairments also impede on the quality of digital health delivery. As a suggestion, the

representative put out the idea of exploring alternative scoring methods for outcome measures such as shorter versions of assessments that can be implemented and carried out by clinicians.

Researcher's Perspective

The representative stated they decided to work on question 2 -for already established risk/protective factors for dementia, what major changes can be expected or identified? The first factor that can influence the future of research implementing dementia risk reduction strategy was online food services. The representative said that online food services are experiencing a surge in demand since the pandemic and these foods may be high in sugar and salt and can also contribute to physical inactivity, hence increasing the risk for obesity and dementia. Next was social isolation, whereby those who were living with family may have had social interaction as a protective factor however those who lived alone without social circles may have been more vulnerable to social isolation and increased risk of dementia. This is where digital literacy comes in handy as it facilitates social engagement, telemedicine and is a platform to create awareness for dementia, its risk factors and modifiable risk factors. However, there is a challenge with telemedicine as people are still not convinced in receiving health services digitally and would prefer physical consultations. This may hinder them from receiving appropriate treatment when they are still afraid of coming to the hospital post pandemic and low compliance to medication, even more so for chronic conditions which can increase risk of dementia. Another point highlighted by the representative was the increased incidence of depression and pseudo-dementia with depression which may contribute to increased risk of dementia over time.

Lastly, the issue of discrimination against the vulnerable older adult population during the pandemic where they were restricted from being in public spaces due to their predisposition to COVID-19. They hypothesized that this may have come off as a protective factor but also a risk factor as keeping them away from social spaces hampered on social interaction which is a risk factor of dementia. The group implored for more research regarding the importance of social interaction and need for social health publications to further understand the impact of social domains on dementia or dementia risk.

Policymaker's Perspective

The representative begun by sharing that in developing economies, depression and social isolation could be a benefit as most older people live in big families and living together during periods of lockdown may have increased familial engagement and improved relationships. However, in developed economies, it was a big issue and there is more demand in mental health systems post pandemic. However, government and healthcare systems are not ready. They also raised the issue of behavioral problems associated with fear of contracting COVID-19 and increase in non-communicable diseases.

They also chorused the issue of accessibility in terms of traveling to hospital and drug compliance, increase in sedentary lifestyle and low physical activity. Regarding policies on digitalization, some economies have found the cost to be high and telemedicine was deemed not very effective. There is also a lack of policy over vaccination, or long COVID post pandemic. It was highlighted that there is a lack of policy in caregivers post pandemic.

Speakers' contribution:

The speaker remarked that the pandemic has changed mental health of people and bring up psychiatric conditions was a very good point. In 2021, there was an excess of major depression globally of 76 million and anxiety disorder of 50 million. She also said that digital solutions must be treated with caution as it can have both favorable and unfavorable consequences where dementia risk reduction is concerned. This is because the current go-to is to look up information on the internet and not everything that is 'Google-ed' may be reliable. Ensuring accessibility to trustworthy sources is something to be reflected upon. Next, she also explained that while the policy and healthcare system were reactive to

the pandemic, it had to be done very quickly, with limited resources and may not have been optimal on all fronts but the best was done given the circumstances. The pandemic has changed the way healthcare system works, accessibility for recipients and there is a need to be proactive as to avoid major adverse events if we were faces with another challenge in the future. To conclude the representative stated that long term needs post pandemic should be addressed beginning with measurements of these needs. Without measurement, action cannot be taken from a policy standpoint.

2.5 Cognitive screening instruments

Lead by: Prof Dr Nagaendran Kandiah

Prof Dr Nagaendran began the workshop session by stating that the discussion will revolve around cognitive screening instruments. He directed questions for each group as outlined below.

Clinician's Questions & Perspective

- What would the main characteristics of a good screening instrument for your patients?
- How do you see digital based screening instruments being incorporated into your practice?

The representative stated that screening instruments have been identified by the World Health Organization as one of the research priorities for dementia. This is because there is currently no good instrument that is suited to the lower middle-income economies. Even in Asia, there is no culturally appropriate screening instrument. They described that screening instruments have to be culturally appropriate, have no educational bias, is succinct in duration to administer (not too long, or too short), can be self-administered or by trained health care professionals and not reliant on medical doctors for administration, and preferably does not require language translation.

In terms of digital-based instruments, not much has been widely used though the group shared several digital-based instruments from their respective economies:

- Chile – Mini Mental Screening Examination Screening via an activity of daily living screening app
- Indonesia – AD8 Dementia Screening app
- Thailand - Informant Questionnaire on Cognitive Decline in the Elderly (IQCODE) & E-Montreal Cognitive Assessment (*in testing stage*).
- The Russian Federation – 10 Question Screening tool

Researcher's Questions & Perspective

- What are the gaps in the research field with respect to developing an efficient screening instrument?
- What kind of research needs to be carried out for screening instruments to be accepted by end-users?

The representative voiced that the gaps in the research field is with respect to developing an efficient screening instrument. Screening instruments should measure more than cognition. It should also evaluate domains such as clinical status, competency, and activity of daily living. Secondly, there is a need for cultural, ethnic and linguistic adaptations. Next, is the training of how to use the screening tools. Training should be conducted regarding proper communication techniques when carrying our screening with older people. Objective cognitive screening tools are also required for people with visual or hearing impairments. Another point was that the feasibility of the instrument needs to be further looked into - Who, when and how would the screening tool be implemented.

Regarding research needs to be carried out for screening instruments to be accepted by end user, the first is implementation and how to administer in different settings and how culturally appropriate is the instrument. Screening tools must include guides on how to interpret results of the outcome measure. Optimally, the screening tools must be validated or be defined as gold standard to be accepted. Screening tools should also be developed to test different levels of assessment and be cost efficient. Clinicians and researchers must work together in co-developing the screening tools because what is feasible in research may not be feasible in clinical settings.

Policymaker's Questions & Perspective

- What qualities would you like to see in a screening instrument, for it to be part of your economy-wide dementia prevention strategy?
- What financial and resource strategies need to be considered when implementing a screening program?

The representative stated that the qualities they as policymakers would like to see in a screening tool include cost effectiveness and to be able to have results as soon as possible – "less budget, quick results". Additionally, the tool must be specific and accurate to reduce time taken in detecting dementia. The screening tool should also be easily administered by self or health personnel, which could also be digitalized. The screening tool should also be developed with mass application in mind which can be adapted to cultural and educational differences. The screening tool must be data driven and that has a continuous system, a structured system from screening to intervention or treatment to data monitoring and evaluations. The system should also be sustainable over time especially in terms of finances and resources to keep the screening program on continuum.

The representative also expressed that there is a need for more conversations to take place between policymakers, researchers and clinicians, such as this in the current workshops. There is also a need for co-development to ensure that research evidence is implemented and put to action.

Speaker's remarks

The speaker said that interesting points were raised in this sharing session and agreed with the need for an integrated cognitive assessment comprising of quality-of-life aspect for early-stage diseases such as Mild Cognitive Impairment or mild dementia since there is currently a lack of such screening tool. Next, he resonated with the need for different levels of assessment tailored to different types of end users. He also asked if perhaps engaging clinicians and researchers from a policy maker perspective would be the right way to go about the development of a sustainable product. The speaker concluded the workshop session with "Research is driven by what is needed on the ground. A lot of times, clinicians see the issues, researchers help solve the issues and policymakers adopt what is best for their economies."

CLOSING REMARKS

Project overseer Assoc Prof Dr Ponnusamy Subramaniam began by stating that the workshop has been very fruitful with an abundance of knowledge and take-home messages especially from the expert speakers. He also commended the 12 participating economies who partook in the workshop not just as participants but as presenters who represented their respective economies, and shared their perspective regarding on-going dementia related efforts in Day 1 of the workshop. He also applauded the interactive and forthcoming nature of all participants who engaged in multi-level discussion during the workshop sessions and broached important topics surrounding challenges in dementia prevention implementation. He hoped that the workshop provided a nurturing platform for sharing, learning, teaching, networking and that there will be continuity within APEC economies towards dementia prevention and risk reduction. The project overseer was delighted that the workshop was able to meet its objective. He looks forward to collaborative support and collating the output of the workshop as a headway towards policy dialogue for dementia prevention and risk reduction within the Asia Pacific region.

Lastly, the project overseer thanked the expert speakers, participants and organizing committee for making the workshop a success and with that the APEC Regional Workshop on Dementia Prevention 2023 was officially adjourned.

FEEDBACK FROM PARTICIPATING ECONOMIES

Following the completion of the two-day workshop, participants were provided with a survey to gather their feedback regarding the workshop. The survey was sent by the Project Overseer on the 24th of May 2023 which was closed on the 30 May 2023. A total of 166 responses were obtained from participating economies of Australia; Brunei Darussalam; Chile; People's Republic of China; Indonesia; Malaysia; Peru; The Philippines; The Russian Federation; Singapore; Thailand; and Viet Nam; 36 from in-person participants and 130 from virtual participants.

The overall responses and feedback from participating economies were positive in majority. As illustrated in Figure 3, participants generally agreed that the objectives of the workshop were achieved, well organized in terms of agenda and topics, relevant to their respective economies, and that the speakers were very knowledgeable. However, several responses from participating economies noted that they wished the workshop materials were distributed more efficiently especially from virtual participants. It must be clarified that some of the materials shared during the workshop were copyright protected and contained information that could not be freely distributed as soft copies, and this was explained to the participants prior and after the workshops. Additionally, some participants also felt that more time was needed for the workshop sessions to give room for further discussion. Suggestions such as hosting a pre-workshop and increasing time for workshop sessions were received, which could be taken into consideration for future undertakings.

It is noteworthy that an encouraging response was observed with respect to increase in level of knowledge on dementia and prevention strategies after participation in the workshop which could be disseminated and implemented in their economies (Figure 4 and Figure 5). This was further explored via thematic analysis conducted on the open response feedback from the workshop survey, and presented as word clouds. Skills and knowledge gained from the workshop included heightened knowledge on dementia, different approaches to prevention and risk reduction of dementia, early screening and detection techniques, the importance for research and policy, evidence-based interventions which could be incorporated into their current practice, and how they could address the needs of the people in their respective economies (Figure 6). Next, when asked how they would apply the knowledge gained from the workshop sessions, participating economies described that they intend to develop work plans for implementation within their localities via organizing training at multidisciplinary and community levels, work towards dementia prevention policy development, sharing learnt best practice strategies for screening and multi-domain intervention towards prevention of dementia, as well as improving communication and collaborative efforts to increase awareness to members of the public regarding dementia and risk reduction initiatives (Figure 7).

Main takeaways from participant response where that the workshop enhanced their knowledge on how to implement effective prevention strategies and improve dementia care in respective economies. They also saw a need for economy-wide strategies, increase in awareness, and improvement in quality of care. The workshop was also a platform for networking, collaboration, sharing experiences, advocacy, reaching conclusions and building recommendations within member economies. Complete details of the open responses from participants can be viewed in the Appendix.

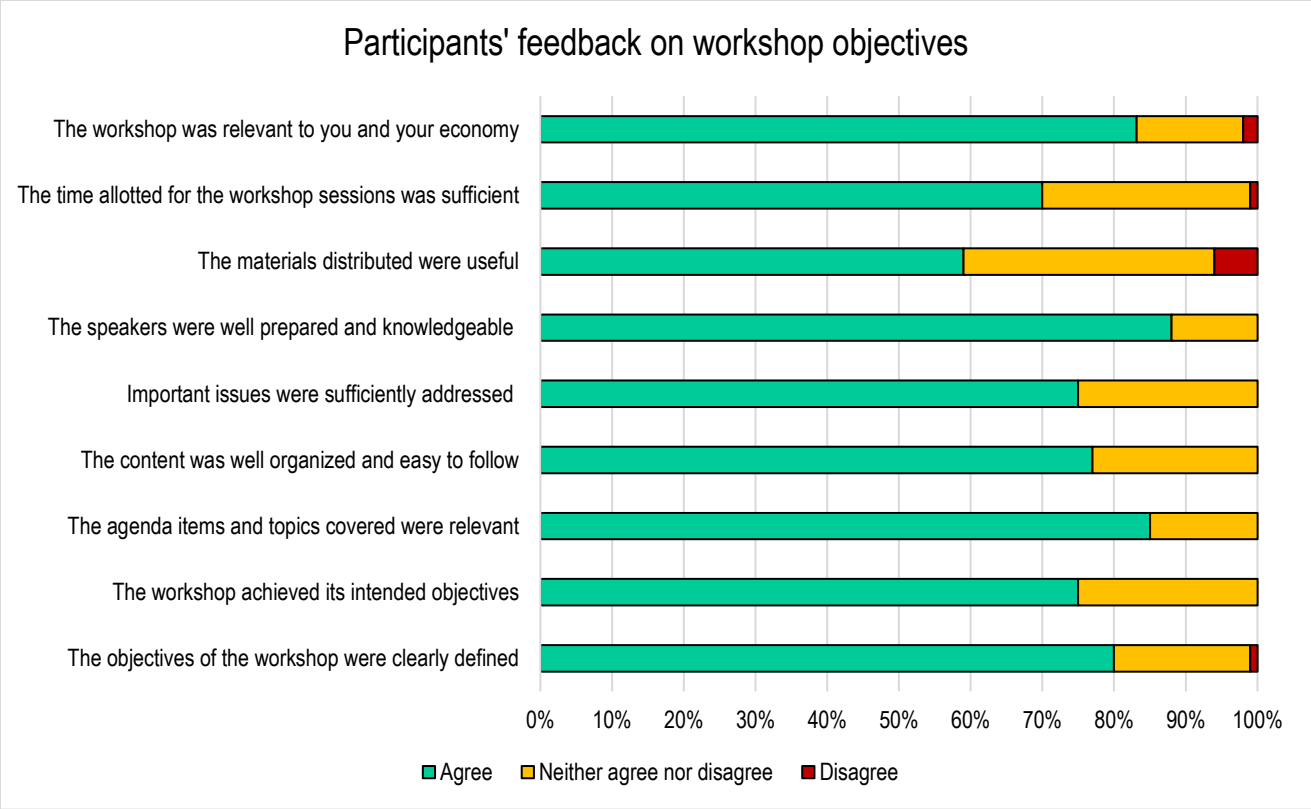

Figure 3: Participants' feedback regarding workshop objectives.

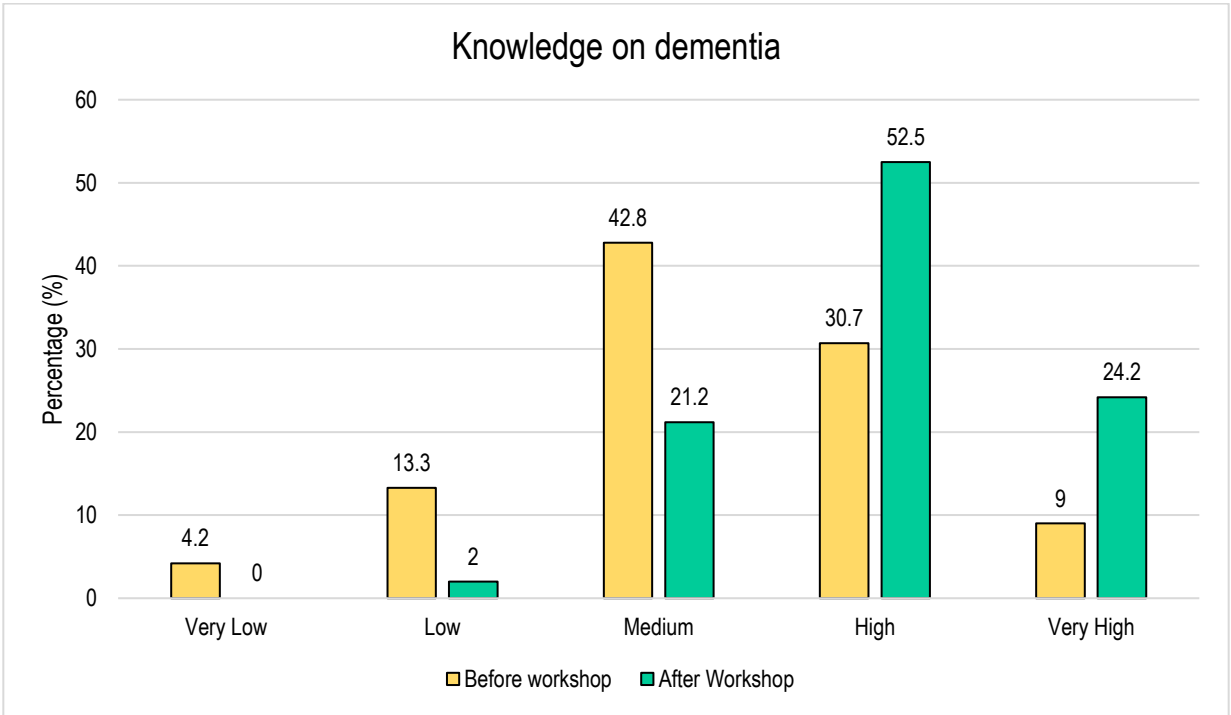

Figure 4: Participants' knowledge on dementia before and after the workshop.

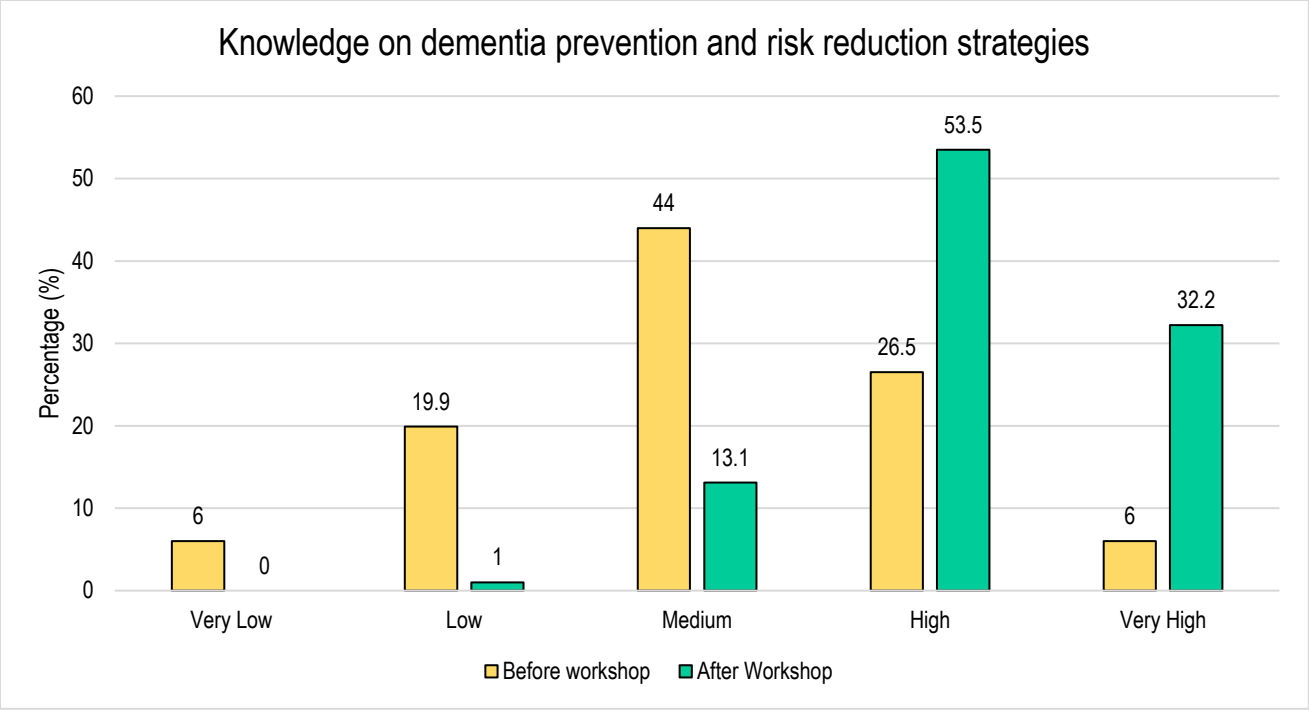

Figure 5: Participants' knowledge on dementia prevention and risk reduction strategies before and after the workshop.

Figure 6: Skills and knowledge gained from the workshop.

Text analysis – words in larger and bolder font indicate higher frequency in qualitative response.

Figure 7: Application of knowledge gained from the workshop.

Text analysis – words in larger and bolder font indicate higher frequency in qualitative response.

APPENDIX

APEC Regional Workshop on Dementia Prevention 2023 - Agenda
23 & 24 May 2023
Berjaya Times Square Hotel, Kuala Lumpur, Malaysia
Co-sponsoring economies: Hong Kong, China; Indonesia; Chinese Taipei.

Day 1	Agenda	Speaker
8.00am - 8.30am	Registration	Organizing team
8:30am - 9:30am	Opening Ceremony	Associate Professor Dr Ponnusamy Subramaniam, Project overseer Professor Dr Suzana Shahar, Dean of Faculty of Health Sciences, Universiti Kebangsaan Malaysia YBrs. Dr Mohd Azman Yacob, Director of Medical Development Division, Ministry of Health Malaysia
9.30am - 10.00am	*Break*	
10.00am - 11.30am	**Plenary Session 1** Overview on Dementia Prevention; Modifiable and non-modifiable factors & it's benefits.	Professor Dr Kaarin Anstey, Director Ageing Futures Institute, The University of New South Wales, Australia.
11.30am – 1.00pm	**Plenary Session 2** Multi-domain approach on dementia prevention program.	Assistant Professor Dr Francesca Mangialasche, Clinical Geriatric Epidemiology, Division of Clinical Geriatrics, Karolinska Institutet, Sweden.
1.00pm – 2.00pm	*Break*	
2.00pm – 5.00pm	**Presentation on ongoing dementia risk reduction practices within the APEC economies.**	All economies
Day 2	**Agenda**	**Speaker**
09:00 – 10:30	**Session 3** Cognitive continuum, screening instruments and early detection of vascular cognitive impairment	Associate Professor Dr Nagaendran Kandiah Director, Dementia Research Centre (Singapore), LKC Medicine, National University Hospital
10:30 – 11:00	*Break*	
11:00 – 01:00	**Workshop 1 – Harmonization of the multi-domain approach to dementia prevention & risk reduction.**	**Lead -** Dr Resshaya Roobini Murukesu, APEC research contractor. All economies, moderators and speakers.
1:00 – 2:00pm	*Break*	
2:00 – 3:00pm	**Workshop 2** ***Themes:*** Socioeconomic inequalities – Addressing challenges for implementation	**Lead -** Professor Dr Kaarin Anstey All economies, moderators and speakers
3.00-4.00pm	**Workshop 3** ***Themes***: Impact of the COVID-19 Pandemic on Dementia Prevention Strategies	**Lead** - Assistant Professor Dr Francesca Mangialasche All economies, moderators and speakers.
4.00-5.00pm	**Workshop 4** ***Themes:*** Screening Instruments for Cognitive Disorders	**Lead -** Associate Professor Dr Nagaendran Kandiah All economies, moderators and speakers.
5.00pm	**Closing of Event**	

Regional Workshop on Dementia Prevention Survey

(HWG 10 2021A)

Organizer: National University of Malaysia
Event Date: 23 and 24 May, 2023
Event Venue: Hybrid (Berjaya Times Square Hotel, Kuala Lumpur and Zoom platform)

*Thank you for participating in the **Regional Workshop on Dementia Prevention & Risk Reduction**. We hope you benefit from this event incredibly.*

We want to hear your feedback so we can keep improving our capacities. Please fill this quick survey and let us know your thoughts (your answers will be anonymous).

1. Which economy did you represent?

   _____

2. Please indicate your level of agreement with the statements listed in the table below.
   (Mark only one circle per row)

	Agree	Neither agree nor disagree	Disagree
a. The objectives of the workshop were clearly defined.	○	○	○
b. The workshop achieved its intended objectives.	○	○	○
c. The agenda items and topics covered were relevant.	○	○	○
d. The content was well organized and easy to follow.	○	○	○
e. Important issues were sufficiently addressed during the workshop.	○	○	○
f. The speakers or facilitators were well prepared and knowledgeable about the topic.	○	○	○
g. The materials distributed were useful.	○	○	○
h. The time allotted for the workshop sessions was sufficient.	○	○	○
i. This workshop was relevant to you and your economy.	○	○	○

3. Rate your knowledge of dementia.
(Mark only one circle per row)

	Low	Very Low	Medium	High	Very high
Before workshop	○	○	○	○	○
After workshop	○	○	○	○	○

4. Rate your knowledge of dementia risk reduction strategies.
(Mark only one circle per row)

	Low	Very Low	Medium	High	Very high
Before workshop	○	○	○	○	○
After workshop	○	○	○	○	○

5. In your view what were the project's results/achievements?
_____
_____

6. What new skills and knowledge did you gain from this workshop?
_____
_____

7. How will you apply the workshop's content and knowledge gained at your workplace?
_____
_____

8. What needs to be done next by APEC? Are there plans to link the project's outcomes to subsequent collective actions by fora or individual actions by economies?
_____
_____

9. How could this workshop have been improved? Please provide comments on how to improve the project, if relevant.
_____
_____

Qualitative responses from participating economies:

In your view what were the project's results/achievements?

Bringing economies together, starting the conversation on dementia prevention at an economy level
Delegates were given access to the latest academic research and learned from each other's' experiences
Plan of action
A better agreement and cooperation
Identifying the gaps
Good
A guideline from Asia-Pacific related to dementia risk-reduction strategy
Excellent
Joint discussion among different stakeholders
Pathway to produce SME in social sciences view
1st step to Dementia risk reduction initiative
Better knowledge on dementia risk reduction strategies, screening tools etc
Very good
Academic aspects are considered successful, but the policy aspect may need further development.
More collaboration
Concentrating opinions of economies and agreeing on goals for the common benefit of people with dementia and the community
Realization how important the prevention is and get to connect with policy makers
Networking and broadening of perspective
Knowledge
Possibility for collaboration
A draft educational packet ready to be shared back home
Exchange of experience
It achieves target on change ideas and tools on risk reduction dementia factor
Networking
Good opportunity to exchange ideas among the region
The most important issue was to learn of the other economies
As above
Networking and stakeholder engagement
Knowledge and how I may do for my community
Excellent
Facilitating knowledge exchange and building relevant connections
Identification of some approaches to move forward with
Understand more about risk prevention
Practical strategies to prevent dementia were emphasized, eg, prevention of obesity; social connectedness
There were useful case studies shared from different regions, a positive sign.
Able to impart new knowledge on dementia prevention and risk reduction
It managed to stimulate a good discussion on the subject and will hopefully help inspire more research in this much needed area
Satisfying
Knowledge and treatment sharing by the different economies give more idea that can be apply in Malaysia
Give more exposure and ideas to other medical personnel to work on procedure to manage dementia cases
Very good. Exposure to knowledge about dementia
Great.
Gather people and sharing knowledge
To work together to combat dementia
Increase awareness in dementia prevention and work related to it
All very good
Once i'm myself can manage proper rehabilitation to patient
Good

Tackling many related issues.
Exploring and integration
Results from the observations of doing
varies activities for the people with dementia
Knowledge and best practices sharing across economies.
Highlighting the vast differences on each economy's progress and the high potential in achieving greater heights in dementia prevention. There seem to be a discrepancy of what is deemed as important amongst the policymakers with the clinicians and researchers.
Experience sharing by different economies
Information and knowledge sharing, hopefully problem solving
Fair to good
Great
Able to succinctly lay out the issues related to risk factors and risk reduction
To reduce the risks of dementia through policy change. Practices of the HCW. And also education for the public.
Improve knowledge and gather information on various practices from other economies
Shed light and more information on disease detection and prevention strategies that may be useful on a community and primary care level
Towards patient needs
For me, gain some knowledge
Memory clinic
It tackles at least the small issue or loophole that might help the dementia patient that has been overlooked before.
Comparison of current status of healthcare for the demented elderly patients
Presented an overview on how to go about in making policy on preventive measures for dementia.
Update on evidence-based approach and intervention on dementia
No comment
Shed light in different economies' dementia status and current projects and policies
Bringing people from various economies and skills together for discussion
Lifelong awareness and services integrated with socioeconomy
To leverage the management based on different skill.
Awareness is there
Good
Sharing what most other economies do and how we can work together moving forward
The protocol and guideline for dementia prevention.
Help me in my knowledge
Bring together various input of knowledge and interventions from all around the world.
In all aspects
It has brought together different perspectives from other regions.
Yes
People's recognition for caring for dementia patients
Help people know better about how to reduce the possibility of getting dementia
Great hopefully
Some were good some were inconclusive
Nil
Implementing practice in public health
Reduce secondary complication from dementia.
Useful and updated information related to dementia was shared
Good

What new skills and knowledge did you gain from this workshop?

Knowledge of challenges faced by economies
Practical ideas that we can consider in furthering dementia prevention efforts
Screening, detection of dementia and evidence based for policies formulation and implementation
Therapies in different regions and cultures
There is a need to get people to come out of their silos and work together, rather than glorify their own silo
Knowing other economies' condition in dementia prevention action
Prevention strategy
The causes and problems of dementia and how to prevent it.
Leaned among needs and opportunities in LMICs
Biomarkers
Importance of collaborative work
A lot of networking and collaboration, practical screening tools and risk reduction strategies
Knowledge in screening tools and sharing of best practices from other economies
Participation and transfer knowledge to practice
More insights into dementia prevention
Giving the opinion and discussing with specific group
How other economics manage this issue
Perspectives from other LMICs
Asia vision
Insight into dementia care from other economies, beat practices that can be adapted
Analysis
It was interesting to listen to the organization in other economies and try to apply
Stage of dementia, how to prevent in early risk from dementia
Understand common needs in dementia
Introduced to new screening methods and techniques which may be applied in my own clinical practice as well as research gaps which may be addressed
Some new ideas of public health policies
Many thoughts, opinions and suggestions from the global platforms
Cross-economy comparisons of challenges in prevention
Dementia prevention, how to connect other people
New insights in dementia risk reduction
Knowledge on the most up-to-date evidence around dementia prevention
Better understanding of the broad field of risk reduction
Understand more about risk prevention
Finger Program? Curious if this will be applicable here
A user-friendly technology can be useful in coping with people suffering from Alzheimer.
More screening instruments for cognitive disorders, multi domain approach for dementia risk reduction, cognitive training and stimulation etc
Research methodology and approaches to preventive research. More research is needed on this subject
Recognizing risk of dementia
Proper assessment, screening, intervention and treatment for dementia cases
Very updated assessment, procedure and intervention that can be implemented in working area.
I learned more about dementia and risk
Latest data
Cognitive assessment
A lot
Importance of dementia prevention and strategies discussion
About patient dementia
Treat patient
Effects of processed food might affect dementia
Different perspective regarding dementia
it helps strengthen the memories of people with dementia doing activities that interacts with other people

Knowledge on multi-domain lifestyle interventions.
More exposure on the implementation of the FINGERS program
efforts in other economies in dementia prevention
Preventive measures and current researches, efforts and struggles faced in APEC member economies
Approach, tools and management
Insight and ideas
More detailed knowledge re: risk reduction for dementia
The use of biomarkers in early detection of cognitive impairment. Which will in turn allow for early detection and prevention
The various interventions in other economies
Reduced dementia risk
Preventive strategies in the community level and importance of educating primary care physicians
New techniques in handling dementia
A little on some of the signs to look for and basic diagnostic tools
Knowledge about patient's problem
Cognitive, social and also others ways of managing the dementia patient based on their environment and economy
Improved my knowledge on policy making.
Multi-domain approach to dementia prevention
Reinforced current skills
Dementia management still is a developing area of Geriatrics and Neurology
Improved knowledge on prevention of dementia
clinical outcome measure
Different perspective from different economy.
To have wider insights on financial
Dementia Prevention & Risk Reduction
Especially thrilled about the MBI - a concept totally new to me!
The protocol and guideline for dementia prevention.
How to educate caregiver on dementia prevention
Cultural difference with regards to geriatric challenges as well feasibility and effectiveness of interventions in different economies
Assessment skills are helpful
Awareness about Subject Cognitive Decline and the need to pay attention to this aspect.
knowledge, latest information on research related and updates
Some methods to keep the quality of life of older people with dementia
Some methods for reducing the risk of getting dementia such as healthy lifestyle, more physical exercises and eating healthy food
More aware on environment in preventing dementia
Dementia ax & mx
Handling dementia
There are Successful Practices in Dementia Prevention and dementia screening tools;
Risk reduction strategy for patient
1) Affirmation on active participation, maintaining healthy lifestyle to overcome burden of dementia. 2) urgent need if data of lifestyles, food intake in malaysia 3) urgent need for expertise in detecting mild functional impairment at community level. 4) process of adapting n grading activities tailored to individual needs.
Dementia risk factors and its prevention
New knowledge about dementia

How will you apply the workshop's content and knowledge gained at your workplace?

Look at policies and collaborations with workshop participants
Develop policy options to support greater focus on dementia detection and risk reduction in primary care and to support wider use of multi-domain risk reduction strategies in a community setting
Harmonized plan of action, content of trainings
Develop work plans
Indulging more in Policy changing research
Validating screening tools and getting involved in the community dementia care more.
Develop work plans and summon the higher ups to be give more attention to this fiels
I will share my knowledge with other social workers
Improve work on ww-fingers
Improvise content modules.
More collaborative work
Organize TOT training and planning and implementing risk reduction strategies
Develop new policy and programs
Develop measure for dementia risk reduction, building capacity of health personnel for dementia management
Yes, in research
Develop program/plan for dementia preventing
Develop work plans
Not too applicable at the moment
New initiatives
Draft strategies, collaboration with policymakers
Develop new policy initiatives
Develop work plans
Develop more activity and program in senior citizens activity center (pawe)
Develop work plan
As previously answered
organize information
Develop more appropriate communication strategies for clinicians and caregivers working with the elderly.
These findings will be highly relevant to our National Action Plan for Dementia.
develop work plans
New program and input for research
Continue to contribute to advocacy and policy development
re-assess an action plan for moving forward across intervention levels
develop work plans/strategies
Organize a Geriatric Unit/Committee for the people of Makati City, and hopefully Community-based Prevention and Management of Dementia will be supported
I am as a Program Manager will apply all the set of knowledge into practice through training workshops of students, caregivers and families.
Provide trainings for carers of people with dementia, work with different societies to develop policies on dementia care, organize congress for medical and allied practitioners on dementia care
We have started an online cognitive stimulation programme for seniors 'Memory Cafe' we also have education programmes in schools called 'mind it' to help students inculcate brain healthy lifestyle.
Increase awareness
Develop engagement and enhancing elderly community that come to the health clinic covering all aspect with help from multidisciplinary team in clinic. Nowadays, all elderly that come to physio department in health clinic will be participating in group classes such as wellness elderly class.
Encouraging elderly group classes to be planned and held as a department monthly programme joined by multidisciplinary team.
By demonstrate it to my colleague and tell them and public about dementia. So they have awareness about dementia
Develop new strategies
Organize training
develop work/ plan for dementia prevention strategies

I can practice my knowledge to my patients have dementia
Develop new procedure
Treatment planning
Organize training
Organize training and develop work plans/ strategies
Develop personalized multi-domain lifestyle interventions.
I am in supervision with other clinicians from the Association of Contextual Behavioural Science (ACBS). This would be a great discussion topic for our supervision session.
improve public awareness.
More readily to educate patients, caregivers, and the high-risk population.
Has helps me to develop strategy, plans and tools
More training
Public awareness and discuss with clinicians - the theme for this year World Dementia Month is Risk Reduction so will take the opportunity to socialise this information
For training of HCW involved in using suitable tools for detection of early cognitive impairments, particularly the community health side
Improve the interventions provided locally using the information gather during this workshop
Education
Include dementia in the med school and allied health curriculum. Develop training for primary care providers to emphasize screening of MCI and dementia at their level
Private personnel. Increase my awareness to look out for early symptoms for friends or family members
develop new policy initiatives
develop proper training program for the elderly with early sign or patient with dementia. Public awareness on understanding and taking care person with dementia
develop work plans strategies such as conducting a multidisciplinary approach
Develop strategies on how to reduce dementia risk.
Organize trainings and develop work strategies among our interdisciplinary team that manage geria patients
develop work plans/strategies that is adept for our economy
develop work plans/strategies
On the ground, work together with local resources (like pusat aktiviti warga emas) for cognitive stimulating activities
start to used outcome measure in services
Develop work plan in different area.
Be proactive n empower our society on prevention
working on plans and strategies
Develop some programmes - multi domain in clinic
Develop work plans/strategies
Caregiver education
Adapt and apply different interventions in psychotherapy sessions with geriatric populations
In caring of dementia patients and to apply in my research work
Incorporate some of the into talks and training programmes run via NGOs
develop work plans
Encourage older people to be in a lifestyle which makes them less vulnerable to dementia such as the diet structure, exercises
I would encourage old people or old patients getting more interaction with people around and more social activities, eating healthier food and having better emotional status
Develop plans
Develop work plans
Workplan
These will be the development of new plans for the Prevention of dementia and the active introduction of skinning into the primary medical network
Involving more aspects other than pharmacological way in my management of patients
As an occupational therapist in academic, I will look into valid and reliable evaluation on functional status through activities and good evidence procedure of implementing activities within community.
Prescribe to client with or at risk of dementia

What needs to be done next by APEC? Are there plans to link the project's outcomes to subsequent collective actions by fora or individual actions by economies?

Develop a communication or paper with recommendations
I think there could be value in documenting local/ culturally relevant prevention measures that have been tried to support wider adoption. There may also be possibility for cooperation between economies to validate screening / assessment tools in multiple cultural and linguistic contexts.
Screening strategies among the member economies
Develop more regional cooperation
Check for progress
Earlier invitation to the team of each economy
ASEAN-FINGER study
Any issues that affected people in large such as mental health problems
Give visibility to this conversation and bring it forward
Mental health issues
Follow up workshop
Should have continuous networking between APEC member economies
Platform for all economies to share and update on project or program
Policy proposals should be made from evidence bases to inform executives and enable policy formation in each economy.
Yes, common barriers and strengths have been identified - proposed solutions applicable to all APEC
Support economies in difficulty, advise on dementia policy of each economy
Follow up may be next 6 months
Need to have more collective initiatives
Distribution of the information
Project collaboration probably
To regroup and see how effective those drafts were
Individual actions
Knowledge about how to handling elderly that have symptoms of dementia in institution (RSK)/homes
Include dementia prevention as a priority in public policy. Develop a common apec prevention strategy
Funding
Plan cost effective research in implementation
Longer term collaborations, setting up common ground strategies and sharing notes will definitely help in addressing this much needed area.
connect researchers among economies
Check for progress every 4-5 years
I do not know.
Follow-up meetings can help, then eventually sharing of best practices
There is strong links between knowledge and practice. So, in next APEC case studies from different regions must be shared.
Provide linkages with different organizations involved in dementia care, disseminate the project outcomes to organizations who would be interested
Have to work on that we are still at an initial stage in our economy
Suggestion to provide section in website for the visitor to see example of operating procedure for dementia cases done in different economies, such as event, program etc.
Suggestion to provide link or any video for the website visitor to view the past presentation as future references.
To convince government for dementia action plan
preferably physical attendance and small group discussions
Establish transnational workgroups on dementia risk reduction. establish data sharing platforms across APEC member economies.
A cost analysis/sharing on the feasibility of implementing the ideas gained in this conference to be tabled to policymakers of the respective economies
Policies
No comment
Policy
I think collective effort and collaboration will be useful.

Collaborations with different industry
To follow up and document the best practices in each economy and disseminate the document to the economies
Annual reports, linkages of agencies so that we can regionally cooperate, program development that can link agencies or institutions where we can send personnel for training
Outcome measure
For Malaysia, maybe work closely with Malaysian Congress of Geriatric Medicine
No comment.
Encourage participation of more southeast asian populations in the research about dementia
no comment
More workshops like this to discuss strategies and advances in Dementia
I hope APEC can appeal to policy makers of the various economies to create an environment that facilitates
Since taking issue to the policy maker need huge collaboration, by begin offering assessment tools may potentially to give more evidence on importance of involvement the policy maker since Malaysia are going to old population. Better to have prevention program than cooping and recovering the issue develop by dementia population.
To discuss the progress.
Keep current effort n work on implementation
Would be great if we can have a regional database that we can contribute to
I'm not sure
Conduct more relevant workshops specifically focusing on training healthcare professionals with knowledge and skills to address geriatric related concerns
Hopefully, can share our research outcome
Definitely much effort needs to go into this.
Links with PG students for research collaboration
Organize more learning opportunities for healthcare staffs and caregivers
Organize some activities or classes to old people to raise their awareness of dementia
Please have an update or fora by economies
Conduct active workshops to share best practices
Include review from multidisciplinary pool of evidence.
Continue organizing more related continuing professional development activities
Still in discussion

How could this workshop have been improved? Please provide comments on how to improve the project, if relevant.

Maybe provide list of attendees and email addresses,
My only small suggestion is that I could have prepared better if the draft education paper had been distributed before the workshop.
More time and topics
A pre-workshop survey might be helpful
More time allocated for discussions
Involves more economies' clinicians, researchers, stakeholders. So, it should be a team from each economy, so that they could apply it to their economy.
A continuation workshop/meeting related to Asean-FINGER
For the next workshop, shall involve more social workers also
It was great
More sharing session
Overall good
More time for workshop to be done
It should set clear goals that require policy proposals or academic or policy drives to aim clearly and get participants who match the mission.
Provide the issue that would be discussed earlier
Work in groups like the last day
Next time maybe more on workshops are distributed evenly
More discussion of individual plans
Define more clearly a final output that could be share with stakeholders and government
None to mention
Plan goals for short and medium action plans
Well done.
It was an excellent event. Time keeping could be a bit better, I guess. Group sessions (always not easy), but perhaps groups could be included in the information pack or in name tags and a clear indication of location of groups. So, time is not wasted dividing into groups.
I have no comments
It would have been great to be able to see the educational packet but I understand copyright rules limited this.
There could be more in-person participants if transportation is provided
This was wonderful initiative; it can be more effective with in person. It is strongly recommended that people working with dementia must be sponsored to attend so that be more beneficial for their communities.
It would be nice if there would be a regular meeting with the different organizations involved in dementia care in the Asia Pacific region, (maybe quarterly meetings ?)
The goal for program had been achieved. Hopefully this conference can be done yearly as more changes can be occur in future
Recommended to organized as yearly event
No comments
Time management
For online participant to check in and check out every session was too troublesome. Kindly provide an easier way. thank you
Better audio, some speakers their voice does not sound very clear
Organizing more workshop like this
Online participants should be able to interact with in-person participants and vice versa. Audience and within breakout groups should comprise of online and in-person participants.
Notes and materials not provided for online participants
Appropriate with the current settings
Technical issue. Quality of slides projection
Advanced considerations of questions in workshop. Maybe have an output document as an outcome from meeting. The online participants may also participate in discussions, which can be made via breakout rooms for zoom.
Online participation of the workshop is limited. Particular the discussion part.
More participants especially from the non-governmental organization

Better attendance method. Soft copy of the some of the materials, since packets were only handed out to those physically onsite.
Should try to follow schedule on time
improve knowledge and experiences
Organize in different states
include online attendees to activities
No comment.
Facilitator/platform for online participants during the workshop
Include online participants in the breakout groups
Perhaps consider how interaction may be improved for virtual participants? Especially on second day
May look into some practical and hand on project
More involvement with online participants.
More ideas in implementation
Technical issue
Hands on workshops with some evidenced based interventions would have been great! Integrating some available gamifications app that are available to be used in our local settings.
For me, i would like if i can get handouts as I'm online participant. I can refer to handouts for future
More discussion on hands-on interventions that are applicable across older adults around the world.
It is perfect, keep it up
Have more hands-on activities to encourage participation. Indicate at the onset who are the target participants.
Not much on this. perhaps the location can move around other places in Malaysia such as Johor Bahru, Penang.
Could it be possible to share ppt slides to participants in advance?
Sharing ppt slides in advance, if possible, then I think it's helpful for audiences to have better understanding of the topic
Improved on time management
A follow up on APEC regarding Dementia
Overall good
Everything was organized at the highest level.
Well, done to spark interest and awareness.
Overall is good