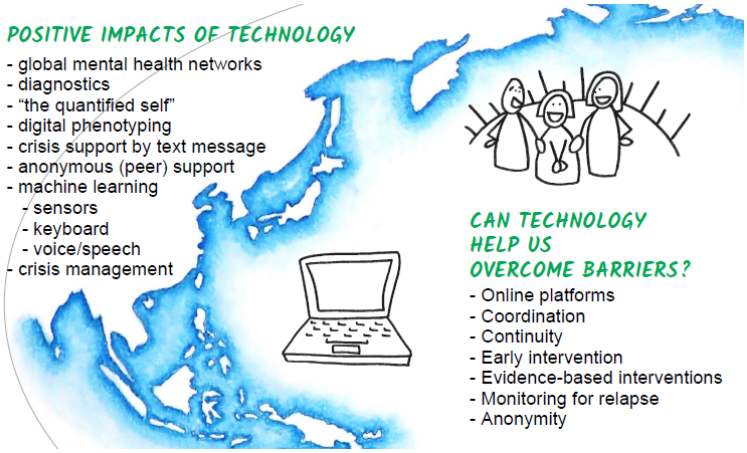
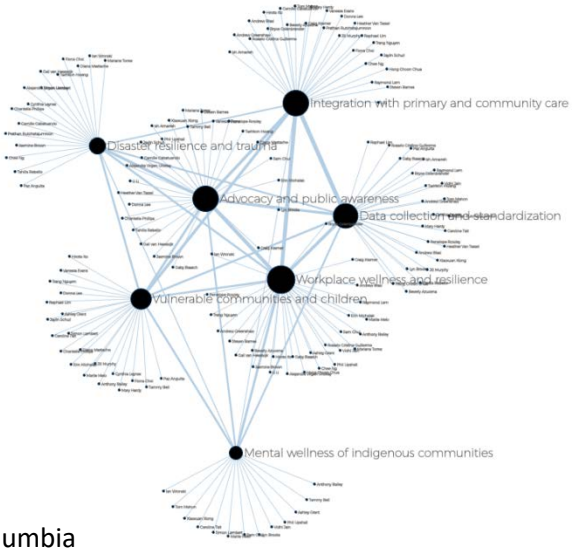
Digital Hub for Mental Health

APEC INNOVATION IN ACTION:
BUILDING THE DIGITAL HUB FOR MENTAL HEALTH
REPORT OF PROCEEDINGS OF EVENT





ORGANIZED BY:

The University of British Columbia

University of Alberta

Mood Disorders Society of Canada/La société pour les troubles de l'humeur du Canada

APEC Digital Hub for Mental Health

June 27-28, 2017 – Vancouver, Canada

Funding in part provided by the Public Health Agency of Canada (PHAC)

UBC a place of mind

UNIVERSITY OF ALBERTA

Mood Disorders Society of Canada
Société pour les troubles de l'hume

Digital Hub for Mental Health

APEC INNOVATION IN ACTION:
BUILDING THE DIGITAL HUB FOR MENTAL HEALTH
REPORT OF PROCEEDINGS OF EVENT

ORGANIZED BY:
THE UNIVERSITY OF BRITISH COLUMBIA
UNIVERSITY OF ALBERTA
MOOD DISORDERS SOCIETY OF CANADA/LA SOCIÉTÉ POUR LES TROUBLES DE L'HUMEUR DU CANADA

APEC DIGITAL HUB FOR MENTAL HEALTH
JUNE 27-28, 2017 – VANCOUVER, CANADA

a place of mind

UNIVERSITY OF ALBERTA

Mood Disorders Society of Canada
Société pour les troubles de l'hume

Funding in part provided by the Public Health Agency of Canada (PHAC)

CONTENTS

Executive Summary

The 2017 'APEC Innovation in Action: Building the Digital Hub for Mental Health' meeting held in Vancouver, Canada June 27th- June 28th served as the official launch of the APEC Digital Hub for Mental Health. The Digital Hub serves as the coordinating centre for APEC's work in mental health, bringing together government, public, and private sectors to share, develop, scale up and evaluate innovative evidence- and practice-based programs. The overarching mission of the Digital Hub is to strengthen the mental health and wellbeing of individuals and communities across the Asia-Pacific region in support of sustainable economic growth.

A key objective of the meeting was to identify the action steps required to ensure on track implementation of the APEC Roadmap to Promote Mental Wellness in a Healthy Asia Pacific and to advance progress in the seven focus areas identified in the APEC Mental Health Initiative 'Report on Strategic Needs in Mental Health', namely: 1. Vulnerable communities and children; 2. Indigenous communities; 3. Integration with primary care and community-based settings; 4. Workplace wellness and resilience; 5. Advocacy and enhancing public awareness; 6. Disaster resilience and trauma, and; 7. Data collection and standardization. Diverse presentation formats (e.g., keynotes, plenaries, panels), interactive activities (e.g., workgroups, networking) and methods (e.g., graphic recording, live polling, surveys, data visualization) were utilized to achieve the meeting objectives.

Concrete action steps identified during the meeting included: 1) A commitment to progress development across all seven core focus areas through core partner led committees; 2) Continuation of technical development consultations, partnership development, and capacity-building during a Colloquium in Viet Nam on the 22nd of August 2017, and; 3) Development of an APEC Position Paper on Workplace Wellness and commencement of a Workplace Wellness and Resilience multi-year initiative plan.

Looking ahead, the Digital Hub is uniquely positioned for success. As an inter-governmental organization built on collaboration and public-private partnership, APEC has extraordinary convening power, a reporting structure directly to political leadership and a dedicated focus on capacity-building, particularly for developing member economies. It provides an unprecedented opportunity to enhance recognition among the highest government leaders, health and non-health officials, academic institutions, community organizations and the public of the importance - and potential impact - of strengthened and strategic investment in mental health to support economic growth.

Introduction

Background to the APEC Digital Hub for Mental Health

Global economies have recognized the value of strengthening mental health. The tremendous societal impact of mental disorders left unaddressed - for people facing mental health challenges, their families, communities, and society more broadly - is well established. The World Economic Forum estimated the Global cost of chronic diseases at over US$47 trillion between 2010 and 2030 of which US$16 trillion will be attributed to mental disorders. Mental health conditions account for 37% of all healthy life years lost from chronic disease, yet annual Global spending on mental health remains below US$2 per person. Although evidence-based, effective and innovative treatments and interventions are available, millions of people worldwide continue to lose health, quality of life, and life itself due to mental disorders and economies suffer as a result. The APEC Digital Hub for Mental Health, the coordinating centre for APEC's work in mental health, was established to help redress this situation in support of sustainable and inclusive economic growth for the Asia-Pacific region.

Since recognition by APEC of mental health needs in the 2014 APEC Leaders Declaration, positive reaction has been swift, with APEC Ministers quickly endorsing the APEC Roadmap to Promote Mental Wellness in a Healthy Asia Pacific (2014-2020),[1] and calling for implementation of Roadmap goals. This initiative was established in clear alignment with other APEC health initiatives (i.e. APEC Healthy Asia Pacific 2020[2]) and the World Health Organization's Mental Health Action Plan (2013-2020).[3] Subsequently Strategic Needs Assessments (SNAs), based on submissions from 15 economies, formed the basis of the APEC Mental Health Initiative Report on Strategic Needs in Mental Health. In this context, seven common priority areas of mental health development (with the greatest potential for critical impact) were identified by APEC economies:

1. Vulnerable communities and children;
2. Indigenous communities;
3. Integration with primary care and community-based settings;
4. Workplace wellness and resilience;
5. Advocacy and enhancing public awareness;
6. Disaster resilience and trauma, and;
7. Data collection and standardization

In April 2016, APEC joined as a strategic partner with the World Bank Group and World Health Organization in the first high-level, international summit on the issue. The program, titled Out of the Shadows: Making Mental Health a Global Development Priority, was attended by representatives from a majority of the APEC member economies as well as the Executive Director of the APEC Secretariat, Dr. Alan Bollard, who joined with the leaders of other international organizations to highlight the economic costs of inaction in strengthening mental wellness for the region.

---

[1] APEC Roadmap to Promote Mental Wellness in a Healthy Asia-Pacific: http://mddb.apec.org/Documents/2014/MM/AMM/14_amm_014.pdf
[2] The Healthy Asia Pacific 2020 Roadmap: https://www.apec.org/~/media/Files/Groups/HWG/Healthy%20Asia%20Pacific%202020%20Roadmap_final.pdf
[3] World Health Organization Comprehensive Mental Health Action Plan 2013-2020: http://www.who.int/mental_health/action_plan_2013/en/

Subsequently, in November 2016, we launched the APEC Digital Hub for Mental Health ('Digital Hub'), with projects organized around the core focus areas identified in the Strategic Needs Assessment. The Digital Hub is developing as the coordinating centre for APEC's work in mental health, bringing together government, public, and private sectors to share, develop, scale up and evaluate innovative evidence- and practice-based programs.[4, 5] Our core mission is to strengthen the mental health and well-being of individuals and communities across APEC in support of sustainable economic growth. The Digital Hub is emerging as the online catalyst that will foster awareness, share information and experiences, build capacity and enable health implementation scale up: promoting innovation and system performance evaluations via multi-lateral and diverse public-private partnerships. A fundamental value of the Digital Hub is recognition of the necessary role of people with lived experience of mental disorders as consumers and equal partners in this process. The Digital Hub's physical footprint is at the University of British Columbia, which serves as the host institution, within a consensus-based leading partnership with the University of Alberta and the Mood Disorders Society of Canada (MDSC). The engagement of core partners across APEC is integral to Digital Hub activities and clearly essential for its growing success.

The digital platform supporting the work of the Digital Hub is developing with a sequential, iterative approach. Our foundational website was launched in 2016 and we have transitioned this rapidly into development of an innovative and secure portal for the sharing of knowledge, data and expertise that is responsive to the evolving needs and priorities of partners and member economies. In the final stage, the APEC Digital Hub will emerge as a fully operational platform with interlinked mental health databases and unprecedented Asia-Pacific online collaboration capabilities. The fully-fledged Digital Hub will be a leading global innovation platform with dedicated health specialists and data scientists collaborating with public and private sector partners to define and advance digital solutions for the advantage of APEC, its member economies and society.

Overview of APEC Innovation in Action: Building the Digital Hub for Mental Health

The 2017 'APEC Innovation in Action: Building the Digital Hub for Mental Health' meeting was held in Vancouver, Canada on June 27th- June 28th as the official launch of the APEC Digital Hub for Mental Health. Specific **objectives** of this meeting were:

1. Identify the action steps required to ensure on track implementation of the APEC Roadmap to Promote Mental Wellness in a Healthy Asia Pacific and to advance progress in the seven focal areas identified in the Strategic Needs Assessment;
2. Provide a forum for networking opportunities in support of strengthening current partnerships and identifying new partnerships;
3. Yield design principles to inform the next (immediate) phase of development of the Digital Hub technology platform, while also providing the foundations for a roadmap towards the future;
4. Showcase recent advances in digital technology innovation in mental health.

Diverse presentation formats (i.e. keynote presentations, plenary sessions, panel discussions), interactive activities (i.e. networking, workgroup sessions, Twitter dialogue) and methods (i.e. graphic recording, live polling, surveys, data visualization, video content production) were incorporated to help

[4] Ng CH, Goodenow MM, Greenshaw AJ, Upshall P, Lam RW. APEC Digital Hub for Mental Health. The Lancet Psychiatry, Volume 4, Issue 3, e3 - e4: http://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366%2817%2930034-2/abstract

[5] Ng CH, Goodenow MM, Greenshaw AJ, Upshall P, Lam RW. Inclusion of Mental Health into Global Economic Development: A First Step. British Journal of Psychiatry International, in press.

meet Objectives 1-3. A key activity was the delivery of six 2.5 hour workgroup sessions in focal areas identified in the APEC Mental Health Initiative Report on Strategic Needs in Mental Health:

1. Integration with primary care and community-based settings;
2. Workplace wellness and resilience;
3. Advocacy and enhancing public awareness;
4. Disaster resilience and trauma;
5. Data collection and standardization;
6. Vulnerable communities and children AND Indigenous communities (nested together for program flow).

Each workgroup was led by a Digital Hub taskforce member with facilitation by a representative of the Digital Hub Executive Committee. A detailed facilitation guide was collaboratively developed prior to the meeting, informed by the principles of Appreciative Inquiry, using elements of the Collaborative Engagement Canvas tool developed by information technology partner *PubliVate*.

Specific objectives of the focal workgroups were:

1. Conduct an environment scan of current and potential new partners in focal areas;
2. Identify promising new practices or projects for scale up which have emerged since the Strategic Needs Assessment;
3. Yield design principles to inform the next (immediate) phase of development of the Digital Hub technology platform, while also providing the foundations for a roadmap towards the future;
4. Prescribe key action steps for the seven core focus area committees, constituting current and prospective partners.

INTRODUCTIONS AND PLENARY PRESENTATIONS

In introduction to the meeting, Executive Director Dr. Raymond Lam reminded attendees of the magnitude of the opportunity afforded by the Digital Hub in terms of positively impacting mental health in the Asia Pacific. Worldwide, he stated, mental disorders afflict over 500 million people; by 2030, they will account for US16 trillion per year in costs. This equates greater costs than for diabetes, cancer, and lung diseases, combined. He then provided a comprehensive overview of the background, mission and priorities of the Digital Hub. With a clear roadmap to improve mental health in the region now in place, and a system established – the Digital Hub – through which to articulate this vision, now is the time for galvanization and concrete action. He described how the Digital Hub is already building impressive momentum. For example, Canada-China Digital Hub partners have been shortlisted for a major 5-year funding opportunity (offered through the Global Alliance for Chronic Disease, GACD and National Science Federation Council, FSFC) to scale up effective measurement-based care for depression in Shanghai. He further announced that the outputs from the Digital Hub's inaugural meeting would be put into immediate work in the near future at the upcoming APEC Digital Hub for Mental Health Colloquium to be held in Ho Chi Minh City, Viet Nam on August 22nd 2017.

The Honourable Dr. Jane Philpott, Minister of Health of Canada, while unable to attend the conference in person, was pleased to provide opening remarks by video. On behalf of the Government of Canada, she endorsed the first international conference for the Digital Hub; recognizing that the event brought together governments, private sectors, and other non-governmental partners, who in total represented 2.8 billion people living in the 21 APEC member economies. Minister Philpott emphasized the need to address mental health challenges and to explore innovation in improving mental health:

"Mental illness affects both our populations and our economies; mental illness undermines productivity. The World Health Organization estimates that it costs 1 trillion USD annually and is the leading cause of lost economic output. When people are well they can work, be productive, and contribute to the economy while living healthy and meaningful lives".

She applauded the efforts of the Digital Hub that will increase awareness, understand risk factors, improve access to quality mental health services, and to redress the stigma associated with mental illness. These efforts, she continued, coupled with international commitments to exchange knowledge and best practices will coordinate our global response to strengthen capacities and build resilient communities. She stated that Canada shares a number of challenges and opportunities with other APEC member economies, affirming: *"together we can take a collaborative approach to reducing stigma, strengthening resilience, and preventing mental illness."*

Plenary Sessions

Will Technology Transform Mental Health Care?
Dr. Tom Insel, MD, President, Mindstrong Health

Dr. Thomas Insel opened the second day of the meeting by asking: "*why have we failed to bend the curve and improve the mental health of our populations*?" He explained that progress is hindered because the majority of people who are in need of mental health services still remain without access to care. In addition, for people who do have access, relatively few receive optimal care. Instead, treatment is frequently delayed or sub-optimal, and mental illness stigma remains a pernicious problem. Dr. Insel described technology as the remedy to the challenges in access, quality, and stigma. In particular, given ubiquitous smartphone use – especially within the Asia Pacific region, he explained how smartphones can revolutionize the mental health arena. Notably, Dr. Insel explored how machine-learning could use data from smartphone users, such as that from device sensors and keyboards, and from users' verbal outputs to create unique, digital user-phenotypes. These passive, objective, continuous, and individualized measurements could then for instance, facilitate relapse and symptom detection, improve diagnostics and treatments, and augment clinical trials and other population health efforts. Next, he illustrated how equitable, effective, and efficient digital mobile technologies could be by drawing on case-specific examples. Although Dr. Insel acknowledged that we are at the infancy of using digital technologies in mental health, he concluded that the combination of sensors, big data sets, and machine learning will transform how we measure and respond to mental health challenges.

IBM – 100 Years of Innovation in Canada
Sanjeev Gill, Director, Research & Innovation, IBM Canada

Sanjeev Gill, Director of Research and Innovation for IBM Canada, opened by highlighting the exponential growth in data and technology, noting the massive potential for APEC member economies to harness the global paradigm shift occurring in the development of innovative digital solutions. He then described the history and transformation of IBM as a champion in research and innovation, especially given their advances in artificial intelligence (AI). Mr. Gill explored the future frontiers of AI within the health sector, and then offered examples to illustrate what contributes to successful, collaborative, and innovative partnerships. He emphasized that as governments, academia, and industries all have specific strengths and capacities; synergistic partnerships between these partners, as epitomized by the Digital Hub, will be imperative.

Current Perspectives of Mental Health in Asia: Implications for the APEC Digital Hub Future Directions
Dr. Chee Ng, Professor, University of Melbourne, Asia-Australia Mental Health, WHO Collaborating Centre in Mental Health

Professor Ng's plenary provided detailed insights into the challenges and opportunities of the Digital Hub. As stated in the 'Report to the Commonwealth' in 2013: "Given the enormous mental health gaps, and all too often fragmentation of precious resources, an urgent priority is to develop mutual co-operation across all relevant sectors. Effective partnerships for a sustainable mental health care system require multi-disciplinary, multi-level, multisector, and multi-linkage approaches. Linkages across government departments, between government and private sectors, between NGOs and public mental health services, and between community agencies and families are needed". Effective solutions will require political commitment, strong leadership, appropriate resource allocation, and an integrated

approach taken to life sciences and health care policy-making to support the translation of global mental health recommendations and economy-wide plans into concrete, measureable results. Key promotors of mental health and recovery will need to be fostered, including: social inclusion (supportive relationships, engagement in community and meaningful activities), freedom from discrimination and trauma (physical security, equity, personal control), and access to economic resources (work, education, housing and financial security).

Professor Ng referred to the 'Mental Health and Integration' study produced by the Economist Intelligence Unit in 2016 (sponsored by partner Janssen Asia Pacific), comparing and ranking levels of effort of 15 countries and territories across the Asia Pacific region in implementing effective mental health policies, and highlighting services and programs available to assist people living with mental illness to integrate more successfully into society. Key observations included:

- Most services in the region are hospital-based and not oriented towards a recovery-focused approach that is integrated with social, housing, employment and community services
- Discrepancies between treatment in urban and rural areas are prominent in both developing and developed economies
- Stigma surrounding mental illness remains a prevalent and significant barrier to treatment access across the region
- Good epidemiological data on mental disorders are generally lacking, especially for less developed economies

To respond effectively to these challenges, strong mental health policy implementation and integration strategies for people with mental illness into the community will be required, as will efforts to build mental health systemic capacity, data integration and a strong platform of mental health research. Finally, Professor Ng described findings from the Asia Pacific Community Mental Health Development Project (2005-2012) which identified best-practice examples and principles of partnerships in community mental health across 17 Asia-Pacific countries; knowledge gained from this project will be an asset for the future work of the Digital Hub.

Culture as Healing Innovation as Strength: Indigenous Peoples and the Mental Health Digital Hub
Dr. Caroline L. Tait, PhD, University of Saskatchewan, Co-Lead, First Peoples First Person Canadian Depression Research and Intervention Network

Dr. Caroline Tait opened her plenary by posing some key questions for consideration: How and why are Indigenous peoples distinct from other "disadvantaged" groups? And within the context of the Digital Hub, where are they situated?" In response to former question, she noted that, which the intersections between intolerance, identity, power, and elitism do deprive disadvantaged groups from opportunity, Indigenous peoples are distinct from broadly disadvantaged groups, and situated in particularly vulnerable contexts. In answer to the latter question, two-thirds of the world's 370 million Indigenous peoples reside within the Asia Pacific region, and they represent 15% of the world's poorest people. Dr. Tait then drew from the 2014 World Congress on Indigenous Peoples' Issues to illustrate the pervasive violation of human rights and the widespread structural inequalities that continue to impact Indigenous communities. Core to this are prevailing barriers to access to mental health services, which can be lacking, fragmented and culturally unsafe.

After highlighting the Canadian Indigenous context, Dr. Tait spoke to the lens of 'pragmatic solidarity', which moves beyond the acknowledgement of Indigenous injustices, to a place where there is recognition that collective achievements have at times come at the expense of the health and well-being

of Indigenous communities. Core to this process are reflections on wrongdoings, awareness of hidden racism and micro-aggressions that can manifest across human service sectors, and empowerment of Indigenous and non-indigenous individuals and organizations to speak of the prevailing injustices in pursuit of reimagined partnerships and reconciliation. Dr. Tait then examined how partnerships with Indigenous peoples intersect with several Digital Hub priority focus areas. As previously noted, issues pertaining to access to, and ownership of data will be a consideration for the data collection and standardization area. Promoting disaster resilience and trauma relief efforts will also require counsel from Indigenous communities, given their increased risks and exposures to disasters. To advance the well-being of vulnerable children and communities, we must protect Indigenous populations, who tend to be younger and who experience greater socioeconomic disparities. In addition, care that is culturally safe and appropriate will lead to initiatives that improve workplace wellness and that integrate mental health within primary care.

Plenary Panels

Plenary Panel: Workplace Mental Health: Accelerating Change in Canada and Around the World

Sapna Mahajan, Director, Prevention and Promotion Initiatives, Mental Health Commission of Canada (MHCC)

Director Sapna Mahajan introduced the panel session with an overview of the critical interplay between workplaces and positive mental health. Healthy workplaces offer people the opportunity to feel productive and to contribute to employee wellbeing. Yet, workplaces are also stressful environments that may contribute to the rise of mental health problems and illnesses. With most adults spending most of their waking hours at work, addressing these issues is vitally important. In Canada, approximately 30% of short- and long-term disability claims are attributable to mental health problems and illnesses; with total annual costs of mental health problems in the Canadian economy exceeding CDN $50B. In 2011, mental health problems and illnesses among working adults in Canada cost employers over CDN $6B in lost productivity from absenteeism, presenteeism and turnover.

The MHCC has spearheaded workplace action by providing tools, information, and support needed to ensure that Canadians can go to work knowing their organization recognizes the importance of psychological health and safety in the workplace. A key aspect has been establishing a National Standard of Canada for Psychological Health and Safety in the Workplace ('the Standard'), an open access, voluntary set of guidelines, tools, and resources to guide organizations in promoting mental health and preventing psychological harm at work. The MHCC's three-year national Case Study Research Project, conducted to better understand how workplaces of all sizes and sectors across Canada are implementing the Standard, provides a valuable summary of promising practices and lessons learned from 40 participating organizations.

Dr. Joti Samra, Principal, Dr. Joti Samra, R. Psych. & Associates, Mainland Medical Clinic, Registered Psychologist

Dr. Samra provided an overview of the evolution of workplace mental health in Canada, and presented changes to the national landscape with regard to policy, business, education, media, research, and with particular reference to 'the Standard' (MHCC National Standard of Canada for Psychological Health and Safety in the Workplace). Dr. Samra provided illustrative case studies of Canadian organizations which

have implemented the standard to yield benefits such as reductions in operational costs, disability claims, stigma, and improvements in service quality and consumer satisfaction. She discussed similar national and international legislative developments, and noted recent shifts in organizational attitudes, behaviors, and practices. Dr. Samra referred to a growing awareness, acceptance and availability of resources to support workplace mental health. To highlight recent trends, Dr. Samra gave examples of new and existing online resources geared towards improving workplace mental health, and discussed how sectors have increasingly incorporated similar training programs in their curricula. She then explained the expanding role and influence of media, given its prominence in shaping societal attitudes, as a primary outlet for public information. Next, Dr. Samra addressed the paradigm shifts that have occurred in research and evaluation that call for greater collaborations with industry partners, to identify organizational factors that impact employee mental health. Last, she noted that despite the advances seen in workplace mental health, sector-specific approaches must be developed to ensure that sector-specific challenges are accounted for in a sustainable way.

Kristen Bower, Consultant, Diversity and Inclusion, People Solutions, Vancity Savings Credit Union

Kristen Bower, contributed to the panel with a valuable discussion on diversity and inclusion, based on her personal experience of fostering diversity and inclusion within the Vancity financial institution, and from her own experience of dealing with depression in the workplace. To emphasize the distinction between diversity and inclusion, she quoted designer Vanessa Slavich, who stated that "*Diversity is inviting new people to the party; inclusion is asking them to dance*." Ms. Bower highlighted the economic burden of mental illness in Canada, citing annual costs to the national economy; the largest category of disability related claims. She described a range of psychosocial factors that influence workplace diversity and inclusion, including organizational culture, employee recognition, involvement, and engagement in workplace processes, and the availability and accessibility of psychological and physical supports for employees. Ms. Bower shared best practices for supporting workplace inclusion and diversity identified by Vancity, which has included establishing a workplace milieu that facilitates and supports open and transparent dialogue between employees and the leadership, and the introduction of recommendations for managers and workplaces to consider in attempting to create and sustain diverse and inclusive work environments.

Plenary Panel: Partners and Partnerships
Forging Partnerships for the National Mental Health Program
Beverly A. Azucena, MD, FPPA, IFAPA, MMHoA, National Center for Mental Health, the Philippines

Dr. Beverly Azucena began with a description of the landscape of mental health care in the Philippines. Currently, there is approximately one psychiatrist for every 200,000 individuals and insufficient in-patient beds, particularly in areas outside of the capital region. Yet, there is room for optimism. A marked shift towards recovery-focused and community-based care is occurring in the region, and the new Mental Health Bill is propelling the development of mental health services that are effective, efficient, and equitable. Dr. Azucena then outlined the core financing and developmental processes in motion to achieve health system goals in the Philippines. For example, innovations in data standardization, health professional training, and advocacy are expected to increase the availability of mental health services. Finally, Dr. Azucena discussed the Philippines' Strategic Plan for National Mental Health Program 2017-2022, emphasizing the initiative's five key focus areas: wellness of daily living, extreme life experiences, mental disorders, neurologic disorders, and substance abuse and other forms of addiction. She concluded that cross-sectoral, and public-private partnerships will be essential for

strengthening capacities, and for developing comprehensive, integrated, and robust mental health services.

Learning Club Intervention: A Showcase of Partnership between Viet Nam and Australia
Trang Nguyen, MPH, PhD candidate, Research & Training Center for Community Development, Viet Nam (RTCCD); Jean Hailes Research Unit, Monash University, Australia

Trang Nguyen began by illustrating alignments between the seven Digital Hub focal areas and complimentary initiatives spearheaded by the RTCCD in Viet Nam, specifically in the areas of workplace health, primary care, and advocacy at the policy level. She then described the outputs of one of the organization's action research groups, focused on advancing the mental health of mothers and children in Viet Nam. The outputs of action research group are laudable (for example, identification of 8 major risk factors for optimal early childhood development in rural Viet Nam), and rest upon an authentic and well-articulated 12-year partnership between Viet Nam and Australia. The research group's innovative 'Learning Club' program is now underway, with the aim of promoting healthy child development and reducing caregiver depression and anxiety. She described Learning Club's 2016-2020 workplan, and articulated how multi-sectoral partners are actively involved in moving research findings into real world action and advancements in national policy and infrastructure.

New Trends in APEC Economies
Dr. Hiroto Ito, PhD, Director at the National Center of Neurology and Psychiatry, Japan,

Dr. Ito set the stage with a highly informative overview of emerging trends in mental health in certain APEC economies. First, Dr. Ito highlighted past, current, and projected age distributions, noting that most economies have, and will continue to observe substantially older populations. In particular, he referred to Japan, the Republic of Korea (South Korea), and Singapore as 'super-ageing' societies; it is expected that one-third of their populations will be aged over 65 by 2050. He then described an in-process initiative to develop a network between the aforementioned economies, with the goal of exchanging best practices and knowledge, and driving research in order to reply to, and to mitigate the anticipated challenges associated with aging populations. He then gave recent examples of Japanese innovations in robotics, dementia care, and productivity that are re-conceptualizing ageing and the needed approaches to offset aging population challenges.

Dr. Ito then spoke to patterns of vertical and horizontal mental health integration. In terms of vertical integration, he reviewed the progress of high-income Asian economies, and then described the strengths and challenges of the health systems in Japan and the Republic of Korea. For instance, he cited the long-life expectancies and access to health services as areas of excellence, but also pointed to the need to bolster systems for gate-keeping and incentivize processes in the private sector. Dr. Ito also described the changing demands and priorities of the Japanese health system, emphasizing that the integration of community care, and older adult services will be at the forefront of future initiatives. In the context of horizontal integration, Dr. Ito called for the need to integrate psychiatric services across all sectors and to prioritize for patients living with multiple morbidities. Finally, he turned relationships between workplace mental health and economic prosperity. He described the phenomena of "karo-shi" (overwork-death) and "karo-jisatsu" (overwork-suicide), and illustrated other negative socioeconomic consequences related to poor working environments. Dr. Ito concluded that economies must encourage site specific interventions and broader regulations to promote a healthy work-life balance in order to increase productivity, reduce costs, and attend to the mental health needs of the workforce.

Focus Area Presentations

Mental Health and Psychosocial Support in Emergency and Disasters
Mauricio Gómez Chamorro, Mental Health Department and Paz Anguita Hernández, Risk Management in Emergency and Disaster Department, Ministry of Health, Chile

At a global level, diverse factors, including climate change, population growth, urbanization, lack of natural resources, conflicts and wars are increasing the incidence of disasters. On average, disasters have caused more than 1.5 million deaths over the last 20 years; nearly 95% of deaths by disasters occur in poor countries. From a mental health perspective, extreme adversity can, for some people, trigger significant mental health problems, such as major depression, post-traumatic stress disorder, substance abuse or prolonged grief disorder. Furthermore, people with severe pre-existing conditions such as psychosis, intellectual disability, and epilepsy are placed at increased vulnerability. At a population and public health level, disasters place a heavy toll on often under-resourced mental health services.

Key resources available to inform the work ahead for the Digital Hub include the Sphere Handbook, which provides common principles and universal minimum standards for the delivery of quality humanitarian response, the Inter-Agency Standing Committee (IASC) Guidelines for Mental Health and Psychosocial Support in Emergency Settings, and the WHO 'Psychological First Aid: Guide for Field Workers', which describes psychological first aid approaches to provide humane, supportive and practical help for people experiencing crisis events. Broadly, effective response systems: are inter-sectorial yet regional (bringing services to where people live), foster attention to mental health in broad health systems, with a special focus on primary health as well as in hospital settings, and respect local cultures and include non-conventional resources. Building more effective mental health supports in times of emergency and disaster offers a valuable opportunity for improvements in the broader mental health systems of APEC economies.

Integration into primary care and community-based settings
Trang Nguyen, MPH, PhD candidate, Research & Training Center for Community Development, Viet Nam (RTCCD)

Trang Nguyen orientated participants to the rationale for the Digital Hub's focus on fostering integration between primary care and community-based settings by speaking to the realities that many member economies face with respect to over-burdened primary care physicians and constrained mental health resources. She described the work of the WHO and World Organization of Family Doctors (WONCA), specifically, the development of an evidence-based pyramid model for an optimal mix of mental health services. Predictors of success for primary care and community based integration include: thorough situational analyses to fully understand diverse contexts and settings, building capacity in existing networks, structures and human resource systems, adequate funding, innovative training models to build core competencies (with ongoing supervision, support and education), effective referral systems and comprehensive embedded evaluation and monitoring systems.

Data Standardization
Beverly A. Azucena, MD, FPPA, IFAPA, MMHoA, National Center for Mental Health, the Philippines National Center for Mental Health

Dr. Azucena began by unpacking what data standardization is, and why it has utility. Data standardization refers to the process of transforming data from disparate sources and systems into a consistent format. Data standardization improves the likelihood of identification of errors, outliers, and other issues within data sets, makes data easier to analyze, ensures that it is reliable, and establishes a consistent level of quality and consistency across datasets. Standardization can occur at various levels, for example, at the levels of data searching, delivery, curation, formatting, acquisition and creation. In the context of the Digital Hub, data standardized initiatives will drive the identification of new projects and ensure consistent and harmonized evaluation of future projects. Impact for APEC member economies will include improved effectiveness, efficacy and equity in mental health systems, enhanced ability of policy makers to establish appropriate goals and objectives, and strengthened intra & inter economy collaborations and exchange of best practices.

Advocacy and Public Awareness
Dr. Tae-Yeon Hwang, MD, PhD, MPH, Division of Mental Health Services and Planning, National Center for Mental Health, Republic of Korea

Simply defined, advocacy refers to diverse actions aimed at changing the major structural and attitudinal barriers to achieving positive mental health outcomes for populations. Advocacy goals include: putting mental health on the agenda of governments, improving policies and practices of governments and institutions, changing laws and government regulations, improving promotion of mental health and preventing mental illnesses, protecting and promoting the rights and interests of people with mental illness and improving mental health services, treatment and care.

Dr. Hwang spoke clearly to the importance of the Digital Hub focus on improving advocacy for people facing mental health challenges, and public awareness of mental health. Mental illness stigma and discrimination are pervasive and pernicious. Discrimination, for example, can impede access to mental health treatment and care and core human and citizenship rights. For example, people with mental illness can be excluded from many aspects of citizenship, such as voting, driving, owning and using property, having rights to sexual reproduction and marriage, and gaining access to the courts. Inequities in access to education, employment and housing opportunities are commonplace. Legal systems can place unnecessary burdens on people with mental illness.

Rather than painting too bleak a picture, however, Dr. Hwang then described several innovative Asia-Pacific advocacy and public awareness initiatives. For example, in Korea, the Central Government and Life Insurance Philanthropy Foundation have partnered to fund a gatekeeper education program that promotes suicide awareness and prevention strategies among the office workers, soldiers, healthcare providers, civil servants, the elderly and adolescents. In another example, the Korea Suicide Prevention Association and the Life Insurance Philanthropy Foundation developed a campaign to prevent the distribution of “insecticide safety boxes” in rural areas and to end the production of fatal insecticides to reduce suicides in rural areas. Research conducted in Asia indicates that stigma towards people experiencing psychosis (as is common, for example, in schizophrenia) are particularly prone to stigma. In order to address social stigma, academic and civil groups in Japan, Hong Kong and Korea have been exploring whether public attitudes towards people with schizophrenia and advocacy can be improved by renaming the condition (for example, “Thought and Perception Dysregulation” in Hong Kong, “Integration Disorder” in Japan, and “Attunement Disorder” in Korea).

In sum, there are diverse innovative advocacy and public awareness projects being tested implemented across APEC member economies; the Digital Hub constitutes a prime platform for scale up of best practices in this important area.

Workgroup Sessions

Workplace Wellness and Resilience

Foundational examples of innovative multi-stakeholder collaborations previously identified in the SNAs included the work of the MHCC (described above) and the Malaysian MENTARI program, which fostered actively collaborations between numerous governmental agencies and NGOs to create employment opportunities for patients with mental health conditions. There was agreement in the workgroup that this focal area offers the Digital Hub an opportunity for alignment and scale up. Three overarching themes emerged from the workplace mental health and resilience workgroup discussion:

1. Breaking down silos;
2. Tailored and targeted advocacy, and;
3. Actionable steps: Making the business case and best practice recommendations.

For the first theme, there was consensus about lack of utility of dividing mental health and physical health. Instead, workplace initiatives need to be positioned within a broader physical health framework. This approach holds potential for addressing prevailing stigmatizing attitudes and behaviours towards mental health conditions. Moreover, many Asia-Pacific organizations are unfamiliar with a mental illness framework; an easier access point is via mental health promotion through the lens of fostering occupational health and safety.

The second theme resonated clearly with parallel discussions occurring in the Advocacy and Public Awareness workgroup. Tailored and targeted advocacy initiatives were seen as required to increase understanding of the value of attention to mental health in workplace settings. The most effective route proposed was the identification of champions and leaders from business communities. One private sector representative offered his reflection that, in their multinational company, it had proved effective to purposefully engage with younger employees, where stigmatizing attitudes may be less prominent, and culture change is already occurring. Here, an opportunity was seen for the Digital Hub in terms of supporting horizontal spread of effective mental health workplace practices across economies. Workgroup participants also spoke to the importance of recognizing and rewarding efforts of organizations in this context, a key recommendation made in the MHCC Standard. Capitalizing on organizational strengths and champions was also recognized as a key strategy.

In terms of the third theme, an urgent need for demonstration of potential return on investment in mental health in the workplace in the Asia-Pacific region was identified. A compelling economic calculation and demonstration that alternative investments are ‘a good business decision’ is required, detailing the potential costs of inaction. A clear and immediate opportunity was recognized for the Digital Hub to serve as a conduit for identification and sharing of best practices and standards in workplace mental health. A concrete, outcomes-focused discussion and stepwise approach was embraced in the workgroup and three clear, actionable steps were recommended:

1. Pursue input via the Digital Hub on the business and economic case for strengthening mental wellness in workplace settings;
2. Play a convening role in the development of a position paper on best practices in fostering workplace mental health and resilience;
3. Based on outcomes of the position paper, including a call to action, pursue multi-year capacity-building initiative to strengthen economies through enhanced workplace wellness.

Integration into Primary Care and Community-Based Settings

Nearly every economy that submitted an SNA prioritized the integration of mental health services into primary care or emphasized the importance of community support networks for mental health. Foundational examples of innovative multi-stakeholder collaborations previously identified in the SNAs exercise included work by the National Institute of Mental Health in Japan, which has been focusing on integrating primary care and mental health services by bolstering awareness of mental health issues in diverse stakeholders. Additional initiatives were identified in the workgroup. These included a grant application (under review) to support a 5-year Canada-China implementation project to adapt, implement and evaluate enhanced measurement-based care in diverse community mental health clinics in Shanghai. The notable work of the Global Clinical Practice Network, an international, multilingual network of mental health and primary care professionals established by the World Health Organization's Department of Mental Health and Substance Abuse and coordinated via the Columbia University Global Mental Health Program, was cited as offering a key collaboration opportunity, as was the National Institutes of Mental Health Office for Research on Disparities and Global Mental Health, which coordinates NIMH efforts to reduce mental health disparities both within and outside of the United States, in particular, their Research Partnerships for Scaling Up Mental Health Interventions in Low- and Middle-Income Countries initiative.

A detailed discussion occurred about the Digital Hub's potential role in enabling integration of mental health into primary care and community care settings. Germane to this discussion is understanding that: 1) the evidence-base in this area has grown exponentially over recent years, and; 2) the diversity of potential interventions in Primary Care and Community-Based Settings is massive. Thus, consensus in the workgroup was that the Digital Hub should, in this area, serve as platform that *facilitates others* to enable change, i.e., developing or synthesizing best practices, support collaborations and training, and fostering advocacy. This focus area discussion will continue during a Colloquium in Viet Nam on the 22nd of August 2017.

Regarding training support, key areas for focus for the Digital Hub are in: capitalizing on increasing spread of existing training (and newer innovations in training and capacity building models, such as 'task sharing' and 'task shifting' models) in the Asia-Pacific region, focusing on advances in virtual/digital training and fostering training, mentoring and capacity building (as well as supporting ongoing monitoring and quality control) in traditional and non-traditional mental health providers alike.

Data Collection and Standardization

Sound data, and data standardized through best practices, are a critical foundation for the development and implementation of effective mental health interventions. A key example of innovative multi-stakeholder collaborations previously identified in the SNAs was in the work of the Philippine Health Information System on Mental Health, designed to improve mental health reporting and patient

monitoring, and to generate consistent and reliable information to bolster knowledge of mental health issues.

The Digital Hub will be promoting the standardized collection of highly diverse forms of mental health data. This is rapidly evolving field, with a paradigm shift occurring in terms of desired and acceptable forms of data (for example, recent increasing emphasis in global health research on Implementation Science metrics). A rich discussion occurred in the workgroup around key the considerations that will inform progress in the focal area. These included the need for clear and transparent attention to issues of privacy, confidentiality and data ownership. This is important for example, at the member economy level. While the vision is for the Digital Hub to provide a central data commons for all APEC mental health data, *"member economies are sovereign and must retain jurisdiction as to what extent data is shared".* It is also important at the level of specific member economy communities of interest. For example, as noted in the Indigenous Communities workgroup and plenary session, the requirements and needs for data control within a framework of cultural safety must also be met in initiatives involving Indigenous communities. Traditionally, Indigenous peoples have not be privileged to access to data nor participated in research design and analysis. Of note here in the Canadian context, as one example, are the 'Ownership, Control, Access and Possession' (OCAP) principles adopted by the Canadian Institutes of Health Research.

The workgroup recommended that priority areas for action in the Data Collection and Standardization focus area will be best dictated by the strategic priorities and workflow of the Digital Hub more broadly. Within this, an incremental approach (e.g., pilot projects, with clear embedded routes for knowledge exchange) should be taken in order to strengthen stakeholder engagement in data standardization activities. The multi-sectoral milieu offered by the Digital Hub was seen as a key promotor of success for this endeavor. The strength of this model was noted in particular in relationship to alliances with private sectors and enterprises; the workgroup notes that data management innovations in the private sector have historically been more advanced than in the healthcare sector. Further, data sources should be viewed broadly and holistically; the Digital Hub data platform should eventually have capacity to integrate data from diverse sources, such as employment, food security and environmental databases. Finally, it was recommended that better mechanisms for data access be established for specific stakeholder groups (for example, people with lived experience of mental health problems, front-line clinicians).

In addition to being responsive to strategically determined needs for data collection standardization in the Digital Hub, the workgroup prioritized the need for the development of an operating definition of standardized data (distinguishing between structured-, semi-structured, and unstructured data), benchmarks and guidelines. Prior work by the Organization for Economic Cooperation and Development (OECD) may be suitable for adoption or adaption.

Advocacy and Public Awareness

Several innovative mental illness advocacy initiatives were identified by the Advocacy and Public Awareness workgroup. Foundational examples of cases of innovative multi-stakeholder collaborations were previously identified in the SNAs exercise. For example, in the Philippines, the Healthy Mind Summit initiative advocated for drafting of legislation to strengthen family-level mental health, financing, advocacy, and research. Development of Singapore's national mental health strategy provided an example of leveraging community engagement as a route to reducing mental illness stigma. The

Republic of Korea provides an exemplar of collaborative efforts to raise awareness in the area of suicide prevention.

A range of potential barriers and enablers to advancing Advocacy and Public Awareness were raised in the workgroup. Naturally, there is significant diversity in member economies in terms of: a) whether they have an established mental health strategy and b) whether a mental health strategy in place contains specific initiatives targeting mental illness advocacy and stigma reduction. Significant opportunities exist for the Digital Hub to serve as a knowledge exchange platform between economies, most notably in the area of knowledge sharing around best practices. A key opportunity and priority area identified by the workgroup was in development of sensitive yet generalizable indicators and metrics to measure impact of Advocacy and Public Awareness initiatives. There was recognition that a systematic and thoughtful approach is required, grounded in theory, yet responsive to specific member economy contexts. There were clear synergies identified for metrics, between the focus of the Digital Hub Advocacy and Public Awareness workgroup and the Data Standardization workgroup.

Workgroup members advised that we should not underestimate the power of both traditional and digital media platforms to impact advocacy and public awareness of mental health. Targeted, tailored and evidence-informed media messaging for specific populations, such as youth facing mental health challenges, was encouraged. Fully leveraging the potential impact of media channels speaks to the need for a well-defined comprehensive communications plan for the Digital Hub, which will need to pay close attention to repurposing Digital Hub communications content for diverse communication channels preferred in individual economies, and by specific stakeholder groups. The Digital Hub should also serve as a forum for proactive and responsive mediation and facilitation of public discourse around mental illness.

The Advocacy and Public Awareness arena was viewed as enabling Digital Hub consideration of a range of evaluated, innovative interventions and best practices that are available across diverse member economies. The Digital Hub provides an opportunity for a 'one stop shop' for curation of advances in this area that are ready for adaptation, implementation and scale up. An attractive complement to this would be Digital Hub activities and resources to support training and core competency development. Further, advantage should be taken of fully leveraging collaborations between existing networks and platforms with synergistic missions, such as the World Health Organization and the Global Clinical Practice Network. The Digital Hub will play an important role in identifying new emerging and future strategic needs in this area. Finally, several economy-specific examples of leveraging advances in digital health technologies (e.g., telehealth) were provided and described as highly valuable, particularly in the areas of promoting mental health advocacy in rural and remote areas, and to specific patient and provider populations. The Digital Hub was recognized as a key mechanism through which the participants will have major impact in advancing Advocacy and Public Awareness across the Asia Pacific region.

Indigenous Communities[6]

Foundational examples of cases of innovative multi-stakeholder collaborations previously identified in the SNAs exercise included Canada's 'First Nations Mental Wellness Continuum Framework', developed

[6] Note: Although for the purposes of program flow the 'Vulnerable communities and children' and 'Indigenous communities' were nested together into one workgroup during the meeting, the results of the two workgroups are presented separately here.

to guide new and existing mental health programs and policies for First Nations communities. Broadly, the SNAs spoke to the need for greater equity in access to services and higher quality/"culturally safe" delivery of such services. Recognition of common of core Indigenous peoples' issues across many of the APEC economies led to a realization of the important role the Digital Hub offers for communication of concerns, capacity building and developing culturally appropriate and economically viable solutions to significant mental health issues within Indigenous communities. There was also a recognition of the role of the Digital Hub in enabling the APEC economies to benefit from understanding the traditional knowledge perspective of Indigenous peoples'.

Unique to the Indigenous Communities focal area in the context of the Digital Hub is the reality that not all member economies have Indigenous peoples. Naturally, this focal area is of greater interest to specific economies, most prominently Australia, Canada and Mexico. Beyond this, even within those economies focused on supporting mental health in indigenous populations, there is diversity in definitions of indigeneity and maturity of Indigenous mental health services, systems and policies. Nevertheless, a number of commonalities were identified by workgroup members. First and foremost, is the need for understanding that, to be effective, changes in mental health research and evaluation, care and systems need to occur in true partnership with Indigenous peoples. For the Digital Hub to promote appropriate and culturally safe mental health care, work ahead must be built on authentic, equitable relationships, key strategic partnerships and genuine openness to, and appreciation of, the invaluable knowledge held by Indigenous communities. With respect to this, other Digital Hub focal areas are seen as having much to learn from Indigenous peoples. For example, it was noted in the area of Disaster and Trauma resilience that some Indigenous communities have been responding to natural disasters for generations; this knowledge should be leveraged. The substantial work of international organizations, such as the United Nations, should also be adopted where appropriate. There are clear synergies between United Nations priority areas for action (e.g., Indigenous women, indigenous children and youth, advancing data and indicators) and the priorities of the APEC Digital Hub.

The prospect of leveraging a digital platform in order to better support mental health in indigenous communities was seen as offering both opportunities and challenges. On the one hand, many Indigenous communities are located in rural or remote geographic areas, without access to developed mental healthcare systems. The opportunities afforded through eHealth initiatives (e.g., telehealth, virtual peer support) are substantial, as is the potential for digital solutions to offer mental health advancements that are not top-down. However, the 'digital divide' may be so pronounced in some regions that it presents an impediment to system advancements. Context-specific, culturally appropriate and sometimes low-tech solutions may be required in addition to innovative digital solutions. Peer support initiatives were thought to show particular promise, and a recommendation arose for the Digital Hub to convene a virtual peer-support focused 'mini summit series' in the area of Indigenous mental health, to build capacity. The role of the Digital Hub in serving as a portal for sharing experiences - both positive and negative - of Indigenous mental health initiatives was seen as pivotal.

Vulnerable Communities and Children

Several economies focused on the need to support mental health in vulnerable communities (including children, people with disabilities, women, and the elderly) in the SNA exercise. Foundational examples of innovative multi-stakeholder collaborations previously identified included the Mapping Health Care in the Violence Against Vulnerable Communities initiative in Indonesia, designed to better understand the drivers of violence against children and women as well as human trafficking, and the Chile Crece Contigo initiative, which promotes the biological, physical, psychological, and social conditions necessary for the

development of mentally healthy children. New initiatives identified within the workgroup included the collaborative Action Research Group on Primary Mental Health Care for Mothers and Children in Viet Nam, between the Research & Training Center for Community Development (RTCCD) in Viet Nam and Australia and their development of the Learning Club initiative focused on perinatal mental health and early child development.

There are multiple natural intersections between the focus of the vulnerable communities and children priority area and other Digital Hub focal areas. With regard to workplace, vulnerable populations are often employed in sectors (for example, agriculture) where if they miss work due to illness they are financially penalized. There is a clear overlap between women's health and advocating for caregivers; for example, over 80% of caregivers for people with mental health issues in Viet Nam are women. Further, higher than average rates of Indigenous people are often placed in institutions (using Canada as an example: youth in child welfare systems, indigenous peoples who are incarcerated). This is a sensitive area that will benefit from greater communication around cultural appropriateness and issues of stigma and the need for building capacity for appropriate assessment and care. Building on the work of the United Nations (for example, Universal Declaration of Human Rights, Convention on the Rights of the Child, Declaration on the Rights of Indigenous Peoples) in the context of the Digital Hub that enables evidence-based consideration of solutions will be an asset in guiding work ahead for the Digital Hub.

Particularly in child mental health, where there is a recognized universal shortage of both evidence and limited capacity in terms of mental health experts and support staff, the Digital Hub will afford many potential advantages for developing new evidence through collaboration and capacity building through shared training opportunities. It is increasingly recognized that a large proportion of mental health problems have their origins in childhood and adolescence. Our children and youth are our economic future. Through the potential of the Digital Hub - providing access to faster and better collaboration, training and more accessible eHealth interventions in this area has great promise for improving the lives of children and families within APEC.

Disaster Resilience and Trauma

Natural disasters are having an increasing impact on the APEC region's populations, and several APEC economies share heightened risks for natural and man-made disasters; improved mental health responses to natural disasters and traumatic events are called for. Foundational examples of innovative multi-stakeholder collaborations previously identified in the SNAs exercise included the Community Mental Health Cadre Training program in Indonesia, developed in partnership with the UN Population Fund and work in Japan to establish extensive cross-sectoral collaborations to promote post-disaster mental health. New initiatives identified within the workgroup included the 'Disaster Mental Health Programme for Communities in Asia', which built capacity for mental health response systems in the Sichuan province in China, Indonesia and Thailand. Considerable expertise in developing effective response systems has been developed in Chile, where the Ministry of Health (MINSAL) and the National Emergency Office (ONEMI) have spearheaded the construction of a 'National Model for the Protection of Mental Health in the Risk Management of Emergency and Disaster'. Within this approach, intersectoral (i.e., representation from health, education, emergency offices, academia, social protection, civil society) working groups are supporting the development of mental health response teams, systematic training procedures and initiatives for first responder care.

In the workgroup, participants, and the results from the data visualization exercise, indicated a strong reciprocal relationship between this focal area and Advocacy and Public Awareness. For example, the role of mainstream media in facilitating (or impeding) mental health in times of disaster was addressed. Mainstream media channels offer the opportunity to quickly inform victims, engage them in response efforts, and help them determine a course of action, but can also be traumatizing, sensationalistic, fuel fake news and increase stress. There is a real opportunity for intersectoral collaboration for the media, governments and healthcare in terms of supporting mental health resiliency in times of emergency response. A concrete action for the Digital Hub was suggested in terms of working with existing mental health media reporting groups who have developed best practice guidelines (for example, Mindframe in Australia, Mindset in Canada) to develop recommendations for reporting in times of emergency or disaster.

A well-articulated multi-sectoral approach was seen as the only effective route for the Digital Hub to support mental health in times of disaster. There are several examples of excellent best practices to share from various member economies – there is significant opportunity for the Digital Hub to serve as an information-sharing portal in this domain. A concrete recommendation was made for the development of a section of the Digital Hub focused on sharing knowledge from disaster 'case studies'. The technological capabilities of the Digital Hub (for example, incorporation of a sophisticated search algorithm in databases) were seen as an asset. The need for the Digital Hub to focus on protecting the mental health of first-responders was also endorsed.

Finally, there was discussion of the idea of the Digital Hub spurring exploration of the notion of disaster response as a positive social disruptor. Handled well, disasters can bring people together, mobilize communities and action, multiply engaged stakeholders, and increase recognition of local and Indigenous expertise. A core value espoused by the workgroup was that Digital Hub initiatives in this area should be focused on building capacity in existing regional, community and national response systems; resources should not be replaced by the Digital Hub's work, but instead supported. It is important to strengthen the capacity of the local network. This model will help ensure that recovery can happen in a stable model and that partners are better equipped to deal with future emergencies.

Conclusions and Action Steps

In conclusion, a series of concrete action steps were identified during the inaugural 'APEC Innovation in Action: Building the Digital Hub for Mental Health' meeting, specifically:

1. A commitment to progress development across all seven core focus areas through core partner led committees;
2. Continuation of technical development consultations, partnership development, and capacity-building during a Colloquium in Viet Nam on the 22nd of August 2017;
3. Development of an APEC Position Paper (and associated 'Business Case') on Workplace Wellness and commencement of Workplace Wellness and Resilience multi-year initiative plan.

Acknowledgements

This summary report was prepared for the attention of the APEC Life Sciences Innovation Forum (LSIF) Planning Group of Officials in July 2017 by:

Dr. Erin E. Michalak, PhD
Program Director, APEC Digital Hub for Mental Health
Professor, Department of Psychiatry, University of British Columbia

Dr. Raymond W. Lam, MD
Executive Director, APEC Digital Hub for Mental Health
Professor and BC Leadership Chair in Depression Research
Associate Head for Research, Department of Psychiatry, University of British Columbia

Dr. Andrew J. Greenshaw, PhD
Scientific Director, APEC Digital Hub for Mental Health
Professor, Department of Psychiatry and Neuroscience and Associate Chair (Research), Department of Psychiatry, University of Alberta

Mr. Phil Upshall, LLB
Financial Director, APEC Digital Hub for Mental Health
Policy Advisor, Mood Disorders Society of Canada

For any additional information about the event or related documentation, please contact:
Dr. Raymond W. Lam, 2255 Wesbrook Mall, Vancouver, BC, Canada V6T 2A1
Tel: (604) 822-7325, Fax: (604) 822-7922, r.lam@ubc.ca
cc: apec.mentalhealth@ubc.ca

The event was convened by the University of British Columbia, University of Alberta, Mood Disorders Society of Canada/La Société Pour Les Troubles de L'Humeur du Canada with the support of an Executive Planning Committee, Conference Planning Committee and the collaboration of International Partners, as follows:

Executive Planning Committee

Dr. Raymond W. Lam, Executive Director APEC Digital Hub; **Dr. Andrew Greenshaw**, Scientific Director APEC Digital Hub; **Mr. Phil Upshall**, Financial Director APEC Digital Hub; **Dr. Erin E. Michalak**, Program Director APEC Digital Hub.

Conference Planning Committee

Dr. Beverly A. Azucena, MD, FPPA, Medical Centre Chief, National Center for Mental Health, Department of Health, the Philippines; **Dr. Hiroto Ito**, PhD, Professor, Director of Department of Social Psychiatry, National Center of Neurology and Psychiatry, Japan; **Dr. Cynthia Leynes**, MD, FPSCAP, FPPA, Director, Center for Gender and Women Studies, University of the Philippines Manila; Vice–Chair for Research, Department of Psychiatry, UP- PGH Medical Center; Professor, Department of Psychiatry, UP College of Medicine; Consultant, Child Protection Unit, Philippine General Hospital and the Head of the

Section of Psychiatry, Cardinal Santos Medical Center; **Dr. Chee Ng**, MD, Healthscope Chair of Psychiatry, Director of the Professorial Unit at The Melbourne Clinic and Director of International Unit, Department of Psychiatry, University of Melbourne.

Conference Support

The organizers of the event appreciate the support provided by the Honourable **Dr. Jane Philpott,** Minister of Health, Government of Canada; **Dr. Maureen Goodenow**, Chair, AEPC Life Sciences Innovation Forum; **Ms. Tammy Bell**, Manager, Policy Development, Public Health Agency of Canada; **Ms. Louise Bradley**, President and Chief Executive Officer, Mental Health Commission of Canada; **Mr. Craig Kramer**, Chair, Global Campaign for Mental Health, Neuroscience External Affairs, Janssen.

Plenary Speakers and Presenters

Dr. Chee Ng, University of Australia; **Ms. Sapna Mahajan**, Mental Health Commission of Canada; **Ms. Kristen Bower**, Vancity Savings Credit Union; **Dr. Joti Samra**, Dr. Joti Samara, R. Psych. & Associates; **Mr. Sanjeev Gill**, Director, Research & Innovation, IBM Canada; **Dr. Tom Insel**, Mindstrong Health; **Dr. Beverly A. Azucena**, National Center for Mental Health, The Philippines; **Dr. Hiroto Ito,** National Center of Neurology and Psychiatry, Japan; **Ms. Trang Nguyen,** Monash University, Viet Nam/Australia; **Dr. Caroline Tait**, University of Saskatchewan.

Working Group Leads

Dr. Tae-Yeon Hwang, MD, PhD, MPH, Division of Mental Health Services and Planning, National Center for Mental Health, Republic of Korea; **Dr. Caroline Tait**, PhD, University of Saskatchewan, Canada; **Sapna Mahajan**, Director, Prevention and Promotion Initiatives, Mental Health Commission of Canada; **Dr. Trang Nguyen,** Monash University and Research and Training Center for Community Development for **Dr. Tuan Tran**, Research and Training Center for Community Development, Viet Nam; **Paz Anguita Hernández**, Risk Management in E&D Dept., Ministry of Chile; **Dr. Mauricio Gómez Chamorro**, Mental Health Department, Ministry of Health Chile; **Dr. Beverly Azucena**, Dept. of Health, National Centre for Mental Health, the Philippines.

Event Participants

Dr. Esther Alonso, Event Staff, Mood Disorders Centre, University of British Columbia, Canada; **Dr. Ishmael Amarreh**, Chief, Research Scientist Development, Program Officer for Global Mental Health, National Institute of Mental Health, The United States; **Dr. Umadevi Ambihaipahar**, Technical Advisor of Social Change and Mental Health, University of PNG, Papua New Guinea; **Ms. Gaby Baasch**, Software Developer, University of British Columbia (Alumna), Canada; **Dr. Anthony Bailey**, Professor, University of British Columbia, Canada; **Dr. Steven Barnes**, Instructor (tenure-track), University of British Columbia, Canada; **Ms. Tammy Bell**, Director, Public Health Agency of Canada, Canada; **Mr. Andrew Blasi**, Associate Director, C&M International, The United States; **Ms. Kristin Bower**, Diversity and Inclusion Consultant, Vancity, Canada; **Mr. Lyn Brooks**, Circle of Eagles Lodge Society, Canada; **Ms. Jasmine Brown**, Director of Communications, Institute of Health Economics, University of Alberta, Canada; **Ms. Camille Cabatuando**, Community Living Outreach Worker, John Howard Society of the Lower Mainland, Canada; **Dr. Fiona Choi**, Postdoctoral Fellow, University of British Columbia, Canada; **Dr. Hong Choon Chua**, Chief Executive Officer, Institute of Mental Health/Woodbridge Hospital, Singapore; **Mr. Sam Chui**, Peer Support Worker, Canada; **Mr. Bryce Colenbrander**, Strategist, PubliVate Inc., Canada; **Ms.**

Maria D'Auria, Registered Clinical Counsellor, University of British Columbia (Alumna), Canada; **Ms. Vanessa Evans**, Program Coordinator, APEC Digital Hub for Mental Health, Mood Disorders Centre, University of British Columbia, Canada; **Mr. Sanjeev Gill**, National Industry Leader for Research, IBM Canada, Canada; **Dr. Mauricio Gomez**, Chief of the Mental Health Department, Ministerio de Salud, Chile; **Dr. Andy Greenshaw,** Professor, University of Alberta, Canada; **Ms. Rosario Cristina Guillerme**, National Center for Mental Health, The Philippines; **Ms. Mary Lou Hardy**, Co-Founder, Attaverse, Canada; **Dr. Paz Anguita Hernández**, Psicóloga en Centro de Apoyo, Centro de Apoyo a Victimas Pudahuel, Chile; **Dr. Tae-Yeon Hwang**, Director, Mental Health Service Division, NCMH Korea, Korea; **Dr. Tom Insel**, President and Co-Founder, Mindstrong Health, The United States; **Dr. Hiroto Ito**, Professor, Director of Department of Social Psychiatry, National Center of Neurology and Psychiatry, Japan; **Vidhi Jain**, Canada; **Mr. Craig Kramer**, Mental Health Ambassador; Chair, Global Campaign for Mental Health, Neuroscience External Affairs, Janssen Research & Development, The United States; **Ms. Jaylin Krause Schuil**, Community Outreach Worker, John Howard Society of the Lower Mainland, Canada; **Dr. Raymond Lam**, Professor, University of British Columbia, Canada; **Dr. Simon Lambert**, Faculty Member in Indigenous Studies, University of Saskatchewan, Canada, New Zealand; **Wing Lau**, Canada; **Ms. Donna Lee**, Accessibility Coordinator in Community Social Development, City of Richmond, Canada; **Dr. Xin-Min Li**, Professor, University of Alberta, Canada; **Mr. Raphael Lim**, Director, Institute of Mental Health/Woodbridge Hospital, Singapore; **Ms. Sapna Mahajan**, Director, Prevention and Promotion Initiatives, Mental Health Commission of Canada, Canada; **Ms. Diana Mastache**, Canada; **Ms. Marlie Melo**, Policy Analyst, Bilateral Engagement & Horizontal Policy Division, Office of International Affairs for the Health Portfolio, Public Health Agency of Canada, Canada; **Dr. Erin Michalak**, Professor, University of British Columbia, Canada; **Ms. Rachael Morrow**, Project Manager, Signals, Canada; **Dr. Jill Murphy**, Postdoctoral Research Fellow; Research Director - Mental Health in Adults and Children: Frugal Innovations (MAC-FI), Centre for Applied Research in Mental Health and Addiction (CARMHA), Simon Fraser University, Canada; **Ms. Elisa Murru**, National Manager, Bounce Back Program, Canadian Mental Health Association, Canada; **Dr. Chee Ng**, Professor, University of Melbourne, Australia; **Dr. Thi Thu Trang Nguyen**, Jean Hailes Research Unit for Women's Health, Monash University, Viet Nam; **Ms. Tanya Poitras**, Event Staff, Mood Disorders Centre, University of British Columbia, Canada; **Mr. Carl Ragazan**, Event Staff, University of British Columbia, Canada; **Dr. Tahilia Jay Rebello**, Assistant Professor, Department of Psychiatry/Mental Health Services and Policy Research, Columbia University, The United States; **Dr. Peter Reiner**, Professor, National Core for Neuroethics, University of British Columbia, Canada; **Ms. Penelope Rowley**, Canada; **Mr. Prathan Rutchatajumroon**, Senior Project Manager, Thailand Center of Excellence for Life Sciences, Thailand; **Dr. Joti Samra**, Registered Psychologist, Mainland Medical Clinic, Canada; **Dr. Caroline Tait**, Faculty of Psychiatry, University of Saskatchewan, Canada; **Ms. Lia Timis**, Manager, Intra Pacific Management, Canada; **Ms. Mariana Torres**, Canada; **Mr. Phil Upshall**, National Executive Director, Mood Disorders Society of Canada, Canada; **Ms. Gail van Heeswijk**, University of British Columbia, Canada; **Ms. Sophia van Norden**, Event Staff, Canada; **Ms. Alejandra Virgen Urcelay**, Globalink Student, Mitacs Canada, Canada; **Ms. Cindy Woo,** Event Staff, Mood Disorders Centre, University of British Columbia, Canada; **Dr. Ian Wronski**, Professor, James Cook University, Australia; **Ms. Janice Yes**, Canada.

Partner Organizations

Australia: The University of Melbourne; **Canada:** The University of British Columbia; Mood Disorders Society of Canada/ La Société Pour Les Troubles de L'Humeur du Canada; University of Alberta; **Chile:** Department of Mental Health, Ministry of Health; **China:** Peking University APEC Health Sciences Academy; **Hong Kong, China:** Janssen Asia-Pacific; **Indonesia:** Directorate of Mental Health, Ministry of Health; **Japan:** National Institute of Mental Health; National Centre of Neurology and Psychiatry

Republic of Korea: National Centre for Mental; **Malaysia:** Ministry of Health; **Mexico:** Ramón de la Fuente Muñiz National Institute of Psychiatry; **Peru:** Ministry of Health; National Institute of Mental Health; **The Philippines:** National Center for Mental Health; University of the Philippines, Manila **Singapore:** Institute of Mental Health; **Viet Nam:** The Research and Training Center for Community Development.