



Digital Hub for Mental Health



ORGANIZED BY:

Department of Health
National Center for Mental Health

APEC Digital Hub for Mental Health
December 5-6, 2018 – Manila, Philippines

Funding provided by the Department of Health, Philippines





**Digital Hub for
Mental Health**

**APEC DIGITAL HUB FOR MENTAL HEALTH
ROUND TABLE MEETING ON DATA STANDARDIZATION
REPORT OF PROCEEDINGS OF EVENT**

**ORGANIZED BY:
DEPARTMENT OF HEALTH
NATIONAL CENTER FOR MENTAL HEALTH**

**APEC DIGITAL HUB FOR MENTAL HEALTH
DECEMBER 5-6, 2018 – MANILA, PHILIPPINES**

Funding provided by the Department of Health (DOH) Philippines



CONTENTS

EXECUTIVE SUMMARY	4
OPENING PROGRAM	
Welcome Remarks from the Host Institution, National Centre for Mental Health, Philippines	5
Message from the Secretary of Health, Philippines	5
INTRODUCTORY SESSIONS	
Introduction of APEC Digital Hub for Mental Health: Journey to Collaborative Partnerships	6
Overview of the Core Priority Area – “Data Standardization” and the Round Table Meeting	7
Data Burst: “The Future of Healthcare: Our Vision for Digital, Data and Technology in Health and Care”	8
PLENARY SESSIONS	
Big Data in Mental Health	9
A Tour of the APEC Digital Hub for Mental Health 2.0	10
Meaningful Data Collection at the John Howard Society	11
Case Studies in Singapore	11
Evidence-based Mental Health Policy and Standardized Data Collection	12
Philippine Experience on Data Collection and Standardization	13
WORKGROUP BREAKOUT SESSIONS	13
CONCLUSIONS AND ACTION STEPS	15
ACKNOWLEDGEMENTS	16
APPENDIX	18

EXECUTIVE SUMMARY

The 2018 APEC Digital Hub for Mental Health Round Table Meeting on Data Collection and Standardization opened the doors for collaboration between APEC member economies with the primary goal of promoting and enhancing the mental health of every person across the Asia-Pacific region. Hosted by the Philippines on December 5-6, 2018 in Makati City, the meeting drew representatives from eleven member economies from government, academic, and private sectors.

The event paved the way for the realization of a key objective of the APEC Digital Hub for Mental Health, to exchange evidence and best practices among its member economies. The forum provided participants with the opportunity to learn more about other economies' practices in handling mental health data relevant to the APEC Roadmap to Promote Mental Wellness in a Healthy Asia-Pacific.¹

During the exchange of ideas, participants identified various strengths and potential barriers that influence effective data collection and standardization. Strengths include the fact that global economies broadly, and the Asia-Pacific region specifically, have recognized the value of strengthening mental health systems, and view data standardization as foundational to achieving this goal. As the coordinating centre for APEC's work in mental health, the Digital Hub brings together government, public, and private sectors to share, develop, scale up and evaluate innovative evidence- and practice-based programs. As such, the Digital Hub for Mental Health represents a remarkably powerful locus through which to promote effective data standardization methods, practices and innovations. Potential barriers with regards to effective data collection and standardization include diverse practices and systems, governance systems, data ownership and privacy considerations, and appropriate information architectures. These potential barriers notwithstanding, success in data standardization in mental health is achievable, especially given the clear routes of communication, collective goals and innovative platforms afforded by the APEC Digital Hub for Mental Health.

¹ Asia Pacific Economic Cooperation (2014). APEC roadmap to promote mental wellness in a healthy Asia Pacific (2014–2020). Available from: http://mddb.apec.org/Documents/2014/MM/AMM/14_amm_014.pdf

OPENING PROGRAM

Welcome Remarks from the Host Institution

Dr. Roland L. Cortez, Philippines

In his opening remarks, Dr. Roland L. Cortez, the Medical Center Chief of the National Center for Mental Health (NCMH), emphasized the extent of collaboration among APEC member economies. He highlighted APEC's recognition of mental health as a critical factor to overall well-being and a major contributor to social and economic growth, workplace productivity, and sustainable development in the Asia-Pacific region. The inception of APEC Digital Hub for Mental Health ('the Digital Hub') represented a pivotal step in articulating the APEC Roadmap to Promote Mental Wellness in a Healthy Asia-Pacific. Through the Digital Hub's governance, both public and private sectors are encouraged to develop and/or scale up innovative solutions to address shared challenges across the region. Dr. Cortez extended his acknowledgment to the Digital Hub's executive team and collaborators, the University of British Columbia, University of Alberta, and the Mood Disorder Society of Canada. Similarly, he recognized the participating economies.

He further stated that NCMH had been tasked by the Philippines Department of Health (DOH) to lead the implementation of the program, products, and activities supporting the efforts of the Digital Hub. He brought to everyone's recollection that in 2015, DOH and NCMH had organized the Round Table Meeting for Mental Health wherein the strategic needs were identified and initial collaborations were staged. Among these needs, data standardization was recognized as a priority. He reiterated that this Round Table Meeting for Data Standardization illustrated a meeting of minds and commitment of various stakeholders and partners in identifying common ground, that is, relevant data gathering. NCMH, the Philippines' largest mental health institution, looks forward to collaborating with partner institutions across APEC economies, particularly in relation to their experiences on data standardization.

Message from the Secretary of Health, Philippines

Undersecretary Myrna C. Cabotaje, Philippines

Representing Secretary Francisco T. Duque of the Philippines' Department of Health, Undersecretary Myrna C. Cabotaje highlighted the importance of standardization in data collection to facilitate comparisons and collaborations across sectors. She stated that "what we cannot measure is something we cannot manage". He reminded participants of the Digital Hub's focal areas, which respond to cross-economy challenges in mental health: Workplace wellness and resilience; Integration with primary care and community-based settings; Vulnerable communities and children; Mental wellness of Indigenous communities; Advocacy and public awareness; Disaster resilience and trauma; and Data collection and standardization. Obstacles to the delivery of mental health services will always be present. However, the vision of DOH remains steadfast: that all Filipinos will have access to health care and no one will be left out. With the Four Pillars of Reform (Financing, Service Delivery, Regulation, and Governance) enveloped in the health program of the current Philippine government, and the inclusion of performance accountability, the goal of building a network of service delivery is on its way towards realization. Currently, the Philippine Mental Health

Act (RA 11036) entails provision of basic mental health services. The final consultation for its Implementing Rules and Regulation had been set; 2019 will be a busy year for mental health in this economy. The exchange of information among economies as to best practices and innovations in delivering mental health services, through the Digital Hub, will in turn bring benefits to the Philippines.



What we cannot measure is something we cannot manage.

- Undersecretary Myrna C. Cabotaje, Philippines Department of Health

INTRODUCTORY SESSIONS

Introduction of the APEC Digital Hub for Mental Health: A Journey to Collaborative Partnerships

Dr. Erin Michalak, Canada

Dr. Erin Michalak reminded everyone that the success of this meeting would depend on the established collaborative relationships among the participants. She facilitated a networking activity, asking attendees to consider questions such as:

1. What do you or your economy bring to this data standardization round table?
2. What do you hope to take away?

Round table participants identified their individual experience and expert knowledge of their economy's mental health policies, research projects, and best practices, particularly in areas such as specific mental health services, mental health awareness, and data collection standards for mental health system integration. Most participants concurred that establishing networks and reinforcing collaborations represented what they most wanted to take away from the meeting.

Dr. Michalak reiterated how mental illnesses affects millions of people globally, causing losses in health, quality of life, and life itself. On the other hand, evidence-based, effective, and innovative treatments are available. Thus, the importance of knowing the best practices in mental health globally can effect change.

She stated that APEC, a regional economic forum representing 21 member economies, has evolved since 1989 to leverage the growing independence of the Asia-Pacific region. She revisited the APEC Roadmap to Promote Mental Wellness in a Healthy Asia-Pacific, as well as the delivery of important meetings and milestones, and synergies with the WHO Mental Health Action Plan (2013-2020).²

She recalled that the last APEC Meeting (Harnessing Inclusive Opportunities, Embracing the Digital Future) in Papua New Guinea emphasized the following themes: the free flow of information and data; efforts for capacity building to ensure that no one will be left behind;

² World Health Organization (2013). Comprehensive mental health action plan (2013–2020). Available from: https://www.who.int/mental_health/action_plan_2013/en/

and the importance of science, technology, and innovation. Relevant to this, recommendations were made on APEC Data Science & Analytics (DSA) Competencies to explore data management and governance, data analytics methods and algorithms and research methods.

The APEC Digital Hub for Mental Health's mission includes enhancing awareness, sharing of knowledge and experiences, development of customized curricula, and facilitated partnerships. This will strengthen wellness in supporting sustainable economic growth and will meet the needs of member economies, in alignment with international best practices.

Overview of the Core Priority Area: “Data Standardization” and the Round Table Meeting Dr. Beverly Azucena, Philippines

Dr. Beverly A. Azucena provided an overview of the Data Collection & Standardization focus area within the Digital Hub. She spoke to the opportunity that member economies and participants have to improve mental health in various domains, such as in the workplace, advocacy, diversity, community mental health, and disaster resilience.

Dr. Azucena defined *data standardization* as the process of transforming data from disparate sources and systems into a more consistent format. The process of standardization applies to multiple aspects of data collection and use, including data creation, acquisition, formatting, curation, delivery, and search. With effective data standardization, it becomes easier to identify errors, outliers, and other issues within a given data set; perform data analysis; ensure reliability; and establish consistent quality and consistency across organizations.

In the context of mental health systems, data standardization has the potential to improve effectiveness, efficacy, and equity; address lack of and gaps in available data; guide policy makers in setting goals and objectives; and strengthen intra- and inter-economy collaboration and exchange of best practices. It is foundational to well-coordinated, well-methodized, and properly aligned mental health systems globally. Within the APEC Digital Hub, data standardization will specifically facilitate the identification of future projects and support harmonized strategies and evaluation tools across the Digital Hub's different focus areas, ultimately supporting successful implementation of the APEC Roadmap to Promote Mental Wellness in a Healthy Asia-Pacific.

While the benefits of data standardization are numerous, potential issues such as governance, ownership, privacy, and appropriate information architectures present challenges. Innovations in information quality management, reference and master data management, data warehousing, business intelligence, and structured and unstructured data management may contribute to managing these challenges.

Dr. Azucena then proceeded to recap key points from the Data Standardization Work Group meeting in Vancouver, summarized in Box 1 below.

Box 1. Data Collection and Standardization Work Group Discussion Outcomes, Innovation in Action: Building the APEC Digital Hub for Mental Health, Vancouver, 26-28 June 2017

DISCOVER: What do we need to be successful?

- A clearly defined role for the APEC Digital Hub; uniform recommendations/guidelines on data privacy and confidentiality; agreement on data ownership, control, and access; public-private partnerships to maximize strengths-based contributions; standards for the related applications and software that utilize collected data; clear policies on the use of instruments (e.g., health surveys, scales) that allow healthcare providers and people with lived experiences to collect and exchange data; and uninterrupted support and resources to support data management.

DREAM: What do we envision?

- A functional approach to data collection, realized through the Digital Hub and the following strategies: Incremental approaches (e.g. pilots) to strengthen stakeholder engagement and support; system transparency; a multi-sectoral approach with an emphasis on alliances with the private sector; collaboration to promote knowledge exchange (wherein shared knowledge is adapted to local contexts); establishment of benchmarks for data collection and standardization (wherein impacts are measured and evaluated); facilitated integration of databases from multiple data entry points extending beyond direct services – e.g., in employment, food security, and the environment; and adoption and adaptation of the OCED approach to identify mental health data outcomes.

DESIGN

- Effective goal-setting, including identification of key milestones, will help shape our vision. Success will be built upon: strengthening the capacity of systems to monitor health through a multi-sectoral approach (to come up with a holistic view of data needed); promoting data collection to strengthen research and economic analyses; advancing stewardship to promote data commons for diffuse ownership; adopting a 'balanced scorecard approach'; attaining consensus on desired outcomes to further engage stakeholders, and forming open standards to facilitate data comparison.

DESTINY

- Our collective visions determine our shared destiny. An equitable plan to standardize data will be adopted to ensure the benefit of all stakeholders. People with lived experience will be involved in determining how their data is collected and used. Priority areas will be aligned with APEC-identified strategic needs. Standards (including indicators) will be open and available to facilitate data comparison, monitoring, partnerships, research, and economic analysis.

MOVING FORWARD: PURPOSE

- At the Vancouver meeting, a locus for the following was created: the exchange of innovative programs, evidence or practice-based approaches and initiatives of the different member economies on data standardization; opportunities for new engagements and collaborations; discussion of its concept and incremental approach in yielding an implementation design in the Digital Hub; and establish linkages with the other focus area working groups of the APEC Digital Hub for mental health.
- Presentation of evidence, a showcase of initiatives, highlighting synergy and diversity of priorities and barriers are the core substances. The group was able to yield values and guiding principles, mitigating strategies for barriers and essential take off points for upcoming activities.

Data Burst: “The Future of Healthcare: Our Vision for Digital, Data and Technology in Health and Care”

Dr. Jill Murphy, Canada

Dr. Jill Murphy began with a discussion of the United Kingdom government’s policy document entitled “The future of healthcare: our vision for digital, data and technology in health and

care”.³ The document describes a current landscape of underutilized online services, outdated and unreliable security practices, and fragmented technological systems. The alternative vision is one of maximizing the potential of technology for health and social care, leveraging basic infrastructure to support high quality and innovative systems.

Barriers to achieving this vision include legacy technology, complex organizational and delivery structures, a risk-averse culture, limited budget, and the need to build and maintain public trust. Four guiding principles and four priority areas are identified to address these challenges: user need, privacy and security, interoperability, and openness and inclusion; and infrastructure, digital services, innovation and skills, and culture. These principles and priorities may help to inform the vision of Digital Hub’s focus area on data standardization for mental health.

Group discussion then explored the following questions:

1. How do the challenges identified resonate with your economy or organizations’ experience?
2. How might the guiding principles align with the APEC Digital Hub vision for data standardization for mental health?
3. How might the priorities inform the work for the APEC Digital Hub in data standardization?

Among the participating economies, Dr. Hiroto Ito of Japan posed a question on how to integrate data from different systems. Ms. Camille Cabatuando of Canada shared that their facility have been conducting suicide prevention training and behavioral management training. Dr. Cynthia Leynes of the Philippines mentioned that most of the data are coming from patients in contact with healthcare professionals. Unfortunately, many people still do not have contact with or access to their economies’ health systems, which can lead to inaccuracies and bias in available data.

PLENARY SESSIONS

1. Big Data in Mental Health

Romulo de Castro, PhD, Incoming Director, Center for Informatics (CFI), University of San Agustin, Iloilo, Philippines

Dr. Romulo de Castro introduced the Center for Informatics at the University of San Agustin and its mission to become the Center of Excellence in responsible data research and applications in Western Visayas, Philippines. The Center’s primary objective is to provide the region and the country with quality evidence and responsive analyses to power equitable and just policies in health and wellness, education, climate change mitigation, disaster preparedness, environmental stewardship, and governance.

³ Department of Health & Social Care, Government of the United Kingdom (2018). The future of healthcare: our vision for digital, data and technology in health and care. Available from: <https://www.gov.uk/government/publications/the-future-of-healthcare-our-vision-for-digital-data-and-technology-in-health-and-care/>

Dr. de Castro discussed an electronic medical record application that empowers Filipino doctors and patients (www.unemr.net). In this technology, no one can use the data without the patient’s consent. Ethical issues on extracting mental health data in social media (i.e., Facebook, Twitter) exist. This is because big data sources may come from smart devices (phones, appliances, cars, etc.), internet searches, social media, large transactional databases, EMR, Imaging, and Omics.

Big Data can be described using Vs and Cs: volume (quantity), velocity (rate), variety (of types/form, e.g., audio, video, sensor, noise), variability (changing meaning), veracity (truthfulness, accuracy), visualization, value (e.g., may decay over time); and characteristics, combinations, complexity, and challenges.

There are three broad approaches to analyzing big data:

1. Descriptive (to produce information) – reporting, dashboard, scorecards, data visualization
2. Predictive (to produce insights) – regression, machine learning
3. Prescriptive (to make decisions) – cause and effect relationships

Dr. de Castro also shared his view on the limited resources in mental health. Research questions are often shaped by data availability and ease of extraction. This can potentially create bias in health policy. In sum, big data has both positive and negative implications for various stakeholders:

	Pros	Cons
Researchers	More and new ways of collecting data, e.g., via smartphone, social media, sensors.	Steep learning curve requiring new technical skills; need consider issues of scale.
Patients	Improved ability for self-monitoring and discovery, sharing data with health care providers.	Privacy concerns and risk; lack of access; technological and health disparities.
Clinicians	Greater patient participation and engagement in care; improved data for clinical assessment; possible new diagnostic, prognostic, and theragnostic procedures.	Rapidly changing guidelines for care.
Society	More research, more patient participation, more clinical engagement and more clinical tools to result in better mental health policies and outcomes.	Privacy concerns and risk; technological and health disparities.

2. A Tour of the APEC Digital Hub for Mental Health 2.0

Mr. Geordie Adams, Publivate, Inc., Canada

Mr. Geordie Adams provided an interactive overview of the Digital Hub platform via work of the Workplace Wellness and Resilience Work Group. He recommended that all meeting participants subscribe to the Digital Hub platform to ensure they receive updates on work group activities and to facilitate easier exchange of thoughts. To tour the Digital Platform, visit: <https://apecmh.publivate.ca/>.

3. Meaningful Data Collection at the John Howard Society **Ms. Camille Cabatuando, John Howard Society, Canada**

Ms. Camille Cabatuando introduced the John Howard Society (JHS) as a registered, non-profit charitable organization that “provides assistance such as housing, life skills, and community-based support, with the goal of assisting individuals to value their positive contributions to society,” to people who are involved with or at risk of involvement with the criminal justice system. Sources of client data include CLBC client profiles, records of interactions and conversations, and case notes, which are entered into and stored in secure software (the Case Administration Management System or CAMS), which allows tracking of intake forms (demographics), assessment needs, service plans, progress reports, case notes, incident and discharge reports. Paper records are also retained at the centre under the ownership and oversight of CLBC. Data collected has been used to identify opportunities and needs for staff training (e.g., in crisis intervention, suicide awareness, trauma, drug overdoses/naloxone treatment) and to shape values for the agency. Documenting lived experience as part of data collection has the potential to help us better understand patients’ needs and motivations as they tell their stories and share their successes.

4. Case Studies in Singapore **Ming Yee (Giles) Tan, MD, Institute of Mental Health, Singapore**

Dr. Giles Tan opened by describing the mental health context of Singapore. Mental and substance use disorders accounted for over 10% of total disease burden in 2016 (ranked fifth). Point estimates of prevalence of common mental disorders in Singapore include MDD at 1 in 17; alcohol abuse 1 in 2; and OCD 1 in 33 people.

Operating for over 90 years, the Institute of Mental Health (IMH) is Singapore’s sole tertiary psychiatric institution. The IMH has policies and procedures in place to conduct evaluations of and make improvements to their clinical services and programs to ensure clients receive quality, safety, cost-effectiveness, and value in care. Data are derived through clinical information systems, operations data, incident and near misses, and other sources (research/improvement/performance evaluation). Patient “data dashboards” (Electronic Medical Records) track clients’ medications, services, chronic disease, patient management, and other clinical documents, and are also used in program evaluation and improvement, for example most recently of a peer support specialist program.

The Institute also employs benchmarking partners, including the Organization for Economic Cooperation and Development (OECD); National Center for Neurology and Psychiatry (NCNP) of Japan; the National Center for Mental Health (NCMH) of Korea; and the Universitair

Psychiatrisch Centrum (UPC) KU Leuven of Belgium. Benchmarking is the process of establishing a standard of excellence against which activities, products, or organizations can be assessed.⁴ Indicators used for benchmarking include patient profiles, quality and patient safety, healthcare utilization, medication use, and patient outcome data. The IMH undertakes regular benchmarking to share improvements and challenges, which has resulted in a value-based framework for the healthcare system that includes the following steps for quality management:

1. Collect and analyze data;
2. Identify care value;
3. Improve and innovate; and
4. Measure outcomes.

Next steps for the IMH will be to align with existing international standardized data reporting, including that of the WHO Mental Health ATLAS.⁵ For example, a common benchmark measure is the number of mental health workers per 100,000 people in the population. Moving forward, standardizing the definition of terms will also be important.

5. Evidence-based Mental Health Policy and Standardized Data Collection

Dr. Hiroto Ito, Japan

Dr. Hiroto Ito opened the discussion by elaborating on a particular method called SMART data standardization and collection, which involves the use of standardized scales, data collection, target population, and timing and managing sensitive patient data (as to who owns and who can access the data). Community Mental Health is concerned with the epidemiology of patients with psychosis being managed at home. A hypothetical cohort of patients born in 1950s were found to have only received in-patient care. They have learned the importance of estimating inpatients with certain mental disorders (e.g., schizophrenia) for the preparation of future health policies and to gain transparency, part of an “open government” movement (access to national database). The data from the national health insurance system should provide real-time health information. He mentioned the Philippines had conceptualized a reporting system for use during disasters which is called Surveillance in Post Extreme Emergency and Disasters (SPEED). Similarly, mental health information was integrated into J-SPEED of Japan. Both initiatives have positively impacted the world. The goal of public mental health policy is to advocate mental health care for sustainable development of their own community following the WHO Comprehensive Mental Health Action Plan (2013-2020).

Comments of Dr. Tae-Yeon Hwang (Korea)

Dr. Hwang noted that utilization of private sector in Korea is dominant (90%). After the enactment of the Mental Health Act, numerous local community mental health centers (MHC) were established. In 2016, evaluations commenced using data from community MHC. Data will be shared from MHC in which centers performing below the standard level are identified.

⁴ Benson HR (1994). An introduction to benchmarking in health care. *Radiology Management*, 16(4):35-9.

⁵ World Health Organization (2017). Mental Health ATLAS. Available from: https://www.who.int/mental_health/evidence/atlas/mental_health_atlas_2017/en/

Evaluation indicators were determined and will be used as a basis for improvements in quality of care. Corollary to this, he recalled that the National Trauma Center was established under the National Center for Mental Health following a ferry accident four years ago in which more than 300 high school students died.

6. Philippine Experience on Data Collection and Standardization

Ms. Cherrie Esteban, Knowledge Management and Information Technology Service (KMITS), Philippines

The Philippines has initiated its Philippine eHealth Strategic Framework and Plan, a component of the Philippines' National eHealth Vision, one of four strategic pillars of the Philippines National Health Care System. It is in collaboration with the Department of Science and Technology, Philippine Health Insurance Corporation (PhilHealth), and University of the Philippines, Manila. Their Electronic Medical Records (EMR) adopted the WHO ITU Toolkit, particularly with the National eHealth Information Interoperability Standards Catalogue's (v1) standardized definition of medical conditions/terms. Currently, most health information data comes from disparate systems. DOH has a vision of utilizing health data to improve care via coordination and reporting. Data consolidation in the Philippines remains a challenge because of its geographical location. Thus, the DOH started harmonizing DOH PhilHealth data integration. Security of shared health records is ensured through PHIE Lite Web Service Data Security. In line with this, the Summary Data Exchange will be strictly followed wherein the patient's consent is sought prior to the submission of and/or release of data. Second, EMR Summary data with consent is then sent to PHIE. Lastly, the patient may begin registration in a hospital. The country is expected to have PHIE Compliant Electronic Medical Records and through the Hospital EMR Adoption Model, connectivity to all facilities will be achieved by 2020. By that time, internet connections should not be a problem anymore. Presently, 73% of rural health units have adopted EMRs. With the advent of the Universal Health Care Bill, the use of EMR in all health facilities will be strictly practiced, improving the health of all Filipinos.

WORKGROUP BREAKOUT SESSIONS

Workgroup sessions then occurred to explore economy-specific perspectives on data standardization considerations. The following central themes emerged:

- 1) **Diverse practices and systems:** Each economy has varying stages of readiness; for example, a minority of economies have existing national mental health policies, while a majority do not. Disparity in data collection systems was very evident. Mental health systems that are in place have been developed for use in their respective economies, and thus employ different standards, measures, and parameters. Likewise, there is diversity in degree of centralization versus decentralization. Most economies, however, are committed to working towards implementation of national mental health information and data collection systems.
- 2) **A variety of barriers exist:** Most participants agreed that their systems remained centralized at the national level and had not yet extended to primary care and

community settings, a recommendation to improve treatment access rates. Data standardization was not available and collected data do not conform with a certain structure. The private and public health care systems are not fully operational and have limited coverage, with a limited portion of populations able to access these health care systems. The political climate in many economies also impeded the full implementation of health programs and the prompt delivery of health care services.

- 3) Common factors are essential for success:** These include existing government policy and commitment, established institutionalized systems, and useful national databases.

In the next workgroup session, participants separated into three smaller groups to consider the following questions:

1. What concrete steps do we need to take as a group to move forward in 2019?
2. What do we need to make this happen?
3. What can you do personally in your economy to do this work?

Following facilitated discussion, recommendations from each group were synthesized as follows. In response to questions (1) and (2), participants identified the following next steps and precursors to their execution:

1. A statement of goals;
2. Consensus from all member economies;
3. Develop ethical guidelines on ownership of data;
4. Individual economies to address local issues related to economic development;
5. Mental Health gap analysis;
6. Data security within the data hub.

In response to question (3), the following action items emerged:

1. Continue to share best and innovative practices among economies;
2. Improve the quality and accuracy of local data;
3. Consider development of a white paper that would provide a set of suggestions relevant to each member economy.

CONCLUSIONS AND ACTION STEPS

Global economies broadly, and the Asia-Pacific region specifically, have recognized the value of strengthening mental health. The tremendous impact of mental disorders left unaddressed - for people facing mental health challenges, their families, communities, and society more broadly - is well established. Effective data collection and standardization is viewed as foundational to optimizing the health and wellbeing of people across the Asia-Pacific.

The 2018 APEC Digital Hub for Mental Health Round Table Meeting on Data Collection and Standardization, by the Philippines on December 5-6, 2018 in Makati City, drew representatives from eleven member economies and government, academic, and private sectors. During the meeting, concrete progress was made in identifying the various strengths and potential barriers that influence effective data collection and standardization. Strengths include the existence of the Digital Hub for Mental Health, which represents a remarkably powerful route through which to promote effective data standardization methods, practices and innovations. Potential barriers with regards to effective data collection and standardization include diverse practices and systems, governance systems, data ownership and privacy considerations, and appropriate information architectures. However, success in data standardization in mental health *is* achievable. Moving forward, the Digital Hub will support APEC member economies to: “Collect the data. To benchmark. To share our best practices”. And in doing so, we will collaboratively contribute to the creation of a healthy and prosperous Asia-Pacific, where mental health can be a – measureable – reality for all.

ACKNOWLEDGEMENTS

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

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Conference Support

The organizers of the event appreciate the support provided by the Honourable Sec. Francisco Duque, Secretary of Health, Philippines.

Plenary Speakers and Presenters

Erin Michalak, PhD, Professor, University of British Columbia, Canada. **Jill Murphy, PhD**, Postdoctoral Research Fellow, University of British Columbia. **Romulo De Castro, PhD**, Incoming Director, Center for Informatics (CFI), University of San Agustin, Iloilo, Philippines. **Geordie Adams**, Publivate, Inc., Canada. **Camille Cabatuando**, Community Living Outreach Worker, John Howard Society of the Lower Mainland, Canada. **Ming Yee (Giles) Tan, MD**, Institute of Mental Health, Singapore. **Hiroto Ito, PhD**, Professor, Director of Department of Social Psychiatry, National Center for Neurology and Psychiatry, Japan. **Cherry Esteban**, Knowledge Management and Information Technology Service (KMITS), Philippines.

Working Group Co-Leads

Dr. Beverly Azucena, Department of Health, National Center for Mental Health, Philippines; **Dr. Tina Fang** and **Dr. Ming Yee (Giles) Tan**, Institute of Mental Health, Singapore. **Dr. Erin Michalak**, Department of Psychiatry, University of British Columbia; **Dr. Jill Murphy**, Department of Psychiatry, University of British Columbia.

Event Participants

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APPENDIX

Work Group Breakout Session 1: Participants by Group.

Group 1.

1. Geordie Adams
2. Monica Hagali
3. Romulo de Castro
4. Camille Cabatuando
5. Karen Sharmini Sandanasamy
6. Liu Tianli
7. Maria Delos Angeles Mendoza Vilca
8. Maria Lourdes Evangelista
9. Noel Reyes
10. Bernard Argamosa
11. Rommel Rodriguez

Group 2.

1. Hiroto Ito
2. Thaweesak Sirirutraykha
3. Xing Wang
4. Umadevir AMbihaipahar
5. Tina Fang
6. Frances Priscilla Cuevas
7. Jeoffrey Cruzada
8. Teresa Rosalie del Valle
9. Milagros Rollinas
10. Oliver C. Delfin

Group 3.

1. Prathan Rutchatajumroon
2. Yasuko Shinozaki
3. Tae-Yeon Hwang
4. Prianto Djatmiko
5. Ming Yee Tan
6. Robert Roy Mapa
7. Hiedi Umadac
8. Ma. Stella Osorio
9. Publio Ploteña
10. Jean Goulbourn