Seminar and Workshop on Maternal, Infant and Young Child Nutrition

Despite mounting international and national efforts in recent years, low birth weight and stunting continue to remain highly persistent in Southeast Asia, contributing to a myriad of health, social and economic consequences, and potentially, a vicious cycle on the future generations. On the other hand, little attention was paid to gestational diabetes mellitus (GDM) in Southeast Asia despite its emerging prevalence. If left untreated or poorly managed, this may lead to higher risk of Type 2 diabetes mellitus and long-term health implications in both mother and offspring.

Jointly organized by ILSI SEA Region and Nutrition Society of Malaysia, the 2-day seminar and workshop were held in Kuala Lumpur, Malaysia on November 13-14, 2018 to discuss trend data, efforts and related issues pertinent to the persistence of low birth weight and stunting and management of GDM in the Southeast Asia Region. Participants were also provided a platform to share their country’s experience, challenges faced and explore strategies to address these issues during the workshop.

Persistence of Low Birth Weight and Stunting, and its Economic and Health Impacts in SEA Region

Mr. Geoffry Smith, President, ILSI SEA Region opened the seminar with a comprehensive overview of the persistence of low birth weight and stunting, and its economic and health impacts in SEA region. While the UNICEF 2016 report showed that Southeast Asia has made considerable progress in reducing stunting in the last decade, its prevalence remains high particularly, in the Philippines, Cambodia, Myanmar, Indonesia and Lao PDR. Mr. Smith further shared various nutrition interventions, underlying causes and consequences in terms of health, social and economic aspects. He underlined the need to adopt a multisectoral approach to address these causes collectively to yield greater improvement in low birth weight and stunting rates in SEA.

Trends, Interventions and Challenges Faced in Tackling Low Birth Weight and Stunting

Indonesia

Ms. Ardhiantie, National Development Planning Agency, Indonesia highlighted that the stunting prevalence rate is still alarmingly high in Indonesia despite improvement over the recent years. An increase in the prevalence of anemia and low birth weight were also noted. She highlighted that the causes are multidimensional and a wider intervention coverage on provincial and district levels is required to effectively address the persistence. In addition to the Scaling Up Nutrition (SUN) movement, a multi-stakeholder approach called Integrated Nutrition Intervention (INI) was launched in 2017 to ensure better coordination
in program implementation from central government to community levels with the key aim of accelerating nutrition improvement and progress of stunting reduction.

**Lao PDR**

Dr. Ratthiphone Oula, Ministry of Health, Lao PDR shared that despite a positive downward trend in stunting rates among children under five in Lao PDR, there were significant disparities across the 18 provinces. In response to the malnutrition and associated economic loss of 2.4% GDP in Lao PDR, the country had implemented various strategies such as the National Nutrition Strategy to 2025 and Plan of Action 2016-2020 (NNSPA) within the context of a multi-sectoral approach. Nutrition coordination with key stakeholders was also strengthened albeit limited capacity and resources. Fostering convergence across multiple sectors remain a challenge in Lao PDR.

**Malaysia**

In her presentation, Ms. Zalma Bt Abdul Razak, Ministry of Health, Malaysia reported that the trends of low birth weight in Malaysia have not improved since 2010. Furthermore, an increasing trend in stunting was observed from 2011 to 2016. From the National Health and Morbidity Survey (NHMS) 2016, she noted that the age of mother, household income group and education level play a vital role in determining the low birth weight rates in Malaysia. Nutrition counseling for pregnant women and baby-friendly clinic initiative (KRB) for children below five were among the nutrition interventions being rolled out to tackle low birth weight and stunting. Ms. Zalma emphasized the importance of conferring wide program coverage and tailoring interventions to specific groups although outreach to mothers outside government health facilities is still a challenge. She concluded that partnership with global networks, collaborative engagement with agencies and nutrition education are keys to driving progress in the reduction of low birth weight and stunting.

**Myanmar**

Dr. Soe Min Oo, Ministry of Health, Myanmar summarized the trend data from Myanmar Demographic and Health Survey (MDHS), showing a decline in low birth weight and stunting in children under five over recent years. However, substantial differences in states and region for stunting prevalence were noted which could be associated with maternal education and household wealth quantile level. He shared that the government is putting great emphasis on the role of nutrition as compared in the past. The National Nutrition Center (NNC) has identified several nutrient deficiencies such as vitamin A, B1 and iron as major malnutrition problems. In recognition of the severity of malnutrition, various national policies and strategies including breastfeeding and complementary feeding practices have been implemented and yielded positive outcomes. Despite that, nutrition promotion in Myanmar faces numerous challenges including weak law enforcement, leadership and poor data quality. He concluded that the future key priorities are to establish a national and regional nutrition sector coordination committee, revise the national nutrition policy, scale up integrated nutrition interventions and align actions around a common result framework.

**Philippines**

Emeritus Prof. Corazon Barba, University of the Philippines Los Baños, Philippines highlighted from the 2015 National Survey that stunting had affected almost one-third (33.4%) of the Filipino children under five and no improvement since 2003 was seen. To address the problems of malnutrition, the Philippine
Plan of Action for Nutrition (PPAN) 2017-2022 had been developed. Among the strategic thrusts are the focus on the First 1000 days of life, intensified mobilization of local government units, and complementation of actions from national and local governments. However, she pointed out that there is a lack of effective implementation of these strategies. While access to health services had improved, gaps persisted particularly in geographically isolated and disadvantaged areas, and due to emergency situations that disrupt routine programs. She emphasized the need to contextualize international and regional strategies based on local context and local governments to prioritize nutrition and provide funding in order to achieve viable improvements in low birth weight and stunting rates.

Thailand

Assoc. Prof. Umaporn Suthutvoravut, Mahidol University, Thailand noted that the prevalence of stunting under five had declined substantially since 1987 while there was a mild improvement in low birth weight. She shared that the use of integrated and life course approach, implementation of Thailand’s Poverty Alleviation Plan in conjunction with Primary Health Care and community-based nutrition programme are key factors underpinning the successful decline of malnutrition among mothers. As challenges such as double burden of malnutrition, low breastfeeding rate and increasing teenage pregnancy rate emerge from the demographic and socioeconomic transition, it is imperative for the country to take them into consideration when developing strategies to tackle low birth weight and stunting.

Vietnam

Prof. Le Thi Hop, Vietnam Nutrition Association (VINUTAS), Vietnam explained that the remarkable reduction in low birth weight and stunting prevalence over the last decade was attributed to the improved nutritional status of women of reproductive age and children, as a result of effective nutrition strategies, increased government support and stronger cooperation with international organization and private sectors. Nonetheless, micronutrient deficiency remains a perplexing nutritional problem in Vietnam while decreasing government investment is impeding the sustainability of nutrition programs. Moving forward, she hopes that greater actions could be taken to address the gaps in data collection and reporting, rising double burden of malnutrition and strengthen capacity building for nutrition.

Identifying and Addressing Gaps in Data Collection, Analysis and Reporting: Low Birth Weight and Under-Five Undernutrition

Assoc. Prof. Pattanee Winichagoon, Institute of Nutrition, Mahidol University, Thailand presented on Identifying and Addressing Gaps in Data Collection, Analysis and Reporting: Low Birth Weight and Under-Five Undernutrition. Using several national surveys from various SEA countries, she deliberated on the gaps and limitations in the data source, methodology of data collection and analysis, data quality and the underlying challenges which affected the true reflection of low birth weight and stunting situation in the respective countries. She emphasized the importance of understanding these limitations in the light of available data and encourage maximizing its usefulness to support programs and policy decisions.
Workshop: Exploring Challenges and Opportunities to Address the Persistence of Low Birth Weight and Stunting

Participants deliberated common challenges to the persistence of low birth weight and stunting and agreed that while many interventions had been implemented to address the multi-faceted causes, the outcome could be ultimately compromised by a lack of strong political commitment and prioritization for nutrition to translate into evidence-based, sustainable and impactful policies and strategies. Community empowerment, engagement and education, social protection programmes as well as a multisectoral approach embedded with strong coordination and convergence with common objectives need to be embraced to achieve accelerated progress in the region. Gaps in measurement and reporting, lack of proper healthcare personnel training and manpower as well as poor monitoring were noted as major issues in the region. Research to examine data accuracy and root cause should thus be given prime importance given its value in steering future policy planning and strategies.

Status, Impacts, Prevention and Management of GDM

Rising Prevalence of GDM in Asia: Challenges and Solutions

Prof. Dato’ Dr. Sivalingam Nalliah, International Medical University, Malaysia shared a review study in his presentation on Rising Prevalence of GDM in Asia: Challenges and Solutions, where ethnicity, socioeconomic status, lifestyle disparities, and use of different screening regimes and testing methods were identified as contributing factors for its prevalence. Given its rising prevalence in Asia, particularly in Malaysia, current strategies and challenges faced in GDM management were discussed. Vertical point of care, fragmented approaches, lack of longitudinal care of mother and child and empowerment of patients, nurses and NGOs were among the gaps that need to be addressed. He further shared research studies on the risk factors, complications, diagnostic criteria and screening methods, as well as the effect of interventions on maternal and birth outcomes. He encouraged the adoption of simple, yet effective interventions through improving health literacy and lifestyle with medical nutrition therapy, and provision of pre-conceptual counseling for the management and prevention GDM.

GDM and its Impact on Maternal and Birth Outcomes: An Asian Perspective

Asst. Prof. Mary Chong, National University of Singapore/Singapore Institute for Clinical Sciences, Singapore presented various research findings on GDM and its Impact on Maternal and Birth Outcomes: An Asian Perspective as well as contributing modifiable and non-modifiable factors that increase the susceptibility of Asian women to GDM. One of the studies was from Growing Up in Singapore Towards Healthy Outcomes (GUSTO) which revealed a continuous relationship between maternal glycemias and neonatal adiposity, further confirming the link from the HAPO study. Data from other studies also showed that physical activity, sleep and circadian eating time are associated with blood glucose levels in pregnant Asian women. She then elaborated on the national guidelines and programs for GDM management, alongside the challenges faced with their implementation, and highlighted a lack of international consensus on GDM diagnostic criteria for accurate comparison of its prevalence globally.
**Indonesia**

Dr. Rima Irwinda, University of Indonesia, Indonesia noted that the escalating trend of GDM in Indonesia would persist due to a projected increase of key risk factors such as obesity. She reported a study conducted in Makassar which demonstrated an increased risk of GDM due to cigarette exposure and consumption of less fiber and coffee. At present, only the Indonesian clinical practice guidelines developed by the Indonesian Task Force on Reproductive Diseases is available for use. Due to data scarcity, she hopes the country could conduct more epidemiological studies on GDM and develop national guidelines for GDM screening.

**Malaysia**

Dr. Mastura Ismail, Seremban 2 Health Clinic, Malaysia highlighted that the epidemic of obesity and diabetes mellitus in Malaysia is paralleling an increase in the number of diabetic women becoming pregnant. She delved into the Clinical Practice Guideline (CPG) Management of Diabetes in Pregnancy 2017 as well as the challenges and issues in the healthcare system, patients and healthcare providers that need to be addressed. She shared that Malaysia has developed a registry for GDM patients for annual follow-up and emphasized the importance of applying a chronic care model encompassing key elements such as productive interactions between healthcare providers and patients, well-informed and empowerment of patients, self-management and decision support, and efficient clinical information system.

**Philippines**

Prof. Jossie M. Rogacion, University of the Philippines, Philippines shared that the GDM prevalence is on the rise. Cohort findings suggested that increasing BMI, family history of diabetes and hormonal contraceptive use could increase the risk of GDM. Recognizing its severe impacts on both the mother and infant, various strategies and interventions were implemented, often coupled with GDM management. She shared that the Philippine Clinical Practice Guidelines (CPG) for diagnosis and management have been developed and recommended fundamental changes to be initiated to raise awareness of GDM with an emphasis on lifestyle change and promote public policies particularly in the health insurance system to improve overall diabetes care and outcomes in the country.

**Thailand**

While there is no available national-scale data on GDM prevalence, Assoc. Prof. Vitaya Titapant, Mahidol University, Thailand reported that the prevalence from hospital-based university reports in the last decade ranged from 4.1% to 16.1%. He pointed out that clinical practice guidelines and other guidelines from various institutions had contributed to a diversity of recommendations, resulting in differences in the prevalence and treatment of GDM and as well as disease outcome. Assoc. Charintip Somprasit, Thammasat University, Thailand further deliberated on GDM management, highlighting that early management after detection is crucial in achieving maternal glycemic control and advised to adopt a multidisciplinary approach towards management. Moving forward, she concluded that there is a need to establish reliable national data on GDM, including its impacts on various aspects such as pregnancy outcomes and society. Also, efforts to improve early management and prevention of GDM in all healthcare levels as well as advocacy on a healthy lifestyle need to be driven to achieve lifelong prevention.
Vietnam

Assoc. Prof. Huynh Nguyen Khanh Trang, Pham Ngoc Thach University of Medicine, Vietnam shared that the prevalence of GDM from 2010 to 2011 was 20.3% using the IADPSG criterion. He noted that GDM is a community issue, especially in countries where rice is a staple food in Southeast Asia. This was evident from the consumption pattern among Vietnamese women at reproductive age, where a high intake of carbohydrate and low-fat diet, particularly cereal and starchy vegetables was noted. To tackle the growing prevalence of GDM in the country, he recommended mass screening for all pregnant women to be performed between 24 and 28 weeks and in the case where there are several high-risk factors. For GDM management, the first-line therapy for women diagnosed with GDM is medical nutrition therapy (MNT) as medical data recorded 75% to 80% effectiveness in outpatient clinics while a 2-h 75 g of postpartum OGTT should be administered between 4 to 12 weeks for women with GDM.

Workshop: Exploring Challenges and Opportunities to Address the Prevalence of GDM

Participants agreed that although a harmonization of GDM screening, diagnosis and management guidelines among the ASEAN countries is imperative, this could be met with various challenges due to different priorities as well as contextual, cultural and ethnic issues. Failure to translate existing guidelines into clinical practices due to inadequate manpower and resources remain a core issue to be addressed. More epidemiological and longitudinal studies on the health impact of GDM on offspring and mothers in SEA should be encouraged and reliable national data on its prevalence needs to be established to create greater awareness among mothers, doctors and healthcare workers. Considering the deleterious impacts of GDM and projected rise, optimization of postpartum care and monitoring, advocacy on breastfeeding and empowerment of nurses should be highly encouraged to ease the growing burden of GDM in the region. Enhancing healthy literacy is also crucial in providing a conducive ecosystem to support education of healthy lifestyle starting from young.