

SDGHI PRESENTS:

THE IMPACT OF COVID-19 ON HEALTH AND HEALTH EQUITY IN THE ASEAN REGION

The COVID-19 pandemic has been unprecedented in how it has affected the lives of everyone around the globe. Poor and vulnerable populations have and will be particularly hard hit by the health and socio-economic consequences of this health crisis. The UN Deputy Secretary-General, Amina Mohammed, has stated that “COVID-19 is a threat multiplier” and is “compounding existing inequalities”. This five-part webinar series takes a deep dive into the impact of COVID-19 on health inequities in the ASEAN region.

Webinar 1:

Examining the impact of COVID-19 on health and health inequities in the ASEAN region

1 Jul 2020, 7pm-8pm SGT

Webinar 2:

Analysing of the impact of COVID-19 on maternal and child health in the ASEAN region

8 Jul 2020, 7pm-8pm SGT

Webinar 3:

Applying a health inequity lens to the impact of COVID-19 on food security and nutritional status in the ASEAN region

15 Jul 2020, 7pm-8pm SGT

Webinar 4:

How has COVID-19 impacted HIV/AIDs, TB and Malaria Programmes in the ASEAN Region?

22 Jul 2020, 7pm-8pm SGT

Webinar 5:

How has COVID-19 impacted Non-Communicable Diseases (NCDs) Programmes in the ASEAN region?

29 Jul 2020, 7pm-8pm SGT



Webinar Summaries

The COVID-19 pandemic has been unprecedented in its effect on the lives of people around the globe, with poor and vulnerable populations being particularly hard hit by the health and socio-economic consequences of this health crisis. The SingHealth Duke-NUS Global Health Institute organised a five-part webinar series to take a deep dive into the impact of COVID-19 on health and health inequities in the ASEAN region.

The first session provides an overview of economic and social inequities in Southeast Asia and how the outbreak has impacted the health system and the ability of marginalised groups to access these systems. The subsequent webinars focus on specific health topics including maternal and child health, food security and undernutrition, other infectious diseases such as TB, HIV, and Malaria and non-communicable diseases.

Please note that the statistics shared were all relevant as of the time of the webinar as reported by the panellists and do not necessarily reflect the current situation. The SingHealth Duke-NUS Global Health Institute (SDGHI) does not bear responsibility for their accuracy.

Webinar 1: Examining the Impact of COVID-19 on Health and Health Inequities in the ASEAN Region

- Prof John Lim, Policy Lead, SDGHI and Executive Director, Centre of Regulatory Excellence, Duke-NUS (moderator)
- Dr. Piya Hanvoravongchai, Program Director, The Equity Initiative, Bangkok, Thailand and Lecturer, Faculty of Medicine, Chulalongkorn University
- Dr Tran Thi Mai Oanh, Director of Health Strategy and Policy Institute, Vietnam
- Dr Swee Kheng Khor, Senior Visiting Fellow, United Nations University International Institute of Global Health, Malaysia
- Dr Kumanan Rasanathan, Coordinator, Health Systems, World Health Organization, Cambodia Office
- Dr Hisham Badaruddin, Adjunct Assistant Professor, SDGHI, and Director for Healthcare, Deloitte Consulting South East Asia

Opening the first session, Prof John Lim states that “the COVID-19 pandemic has exposed and exacerbated health inequalities in the region”. The UNDP Human Development Index 2000-2017 trends show that the ASEAN region is diverse in terms of socio-economic development but that many lower income countries have been catching up over time. For example, many countries in the region have made great strides in reducing under-5 child mortality. However, Dr Hanvoravongchai explains that deeper analysis of under-5 child mortality split by wealth quintiles show that the poorest have much worse outcomes than the richest. In some countries this gap has not reduced much or even increased over time. These health inequities are likely to be further exacerbated due to the COVID-19 pandemic.

Dr Hanvoravongchai says that although Southeast Asia, compared to other regions in the world, currently has a relatively low number of confirmed cases and case fatality rate, this is just one impact of COVID-19 on health. He further elaborates that the pandemic causes a triple threat: 1) direct impact on the health system; 2) indirect impact of public health measures and government responses; and 3) economic and social impact in various guises. Active government responses have managed to somewhat mitigate the direct impact of COVID-19. However, the indirect impact of shifting resources to respond to the pandemic have caused other potentially negative consequences. Taking Thailand as an example, Dr Hanvoravongchai suggests that partial lock down and social distancing measures helped contain the outbreak and reduce traffic accidents and a number of communicable diseases. However, at the same time these actions caused a disruption in health services and led to other socio-economic implications such as job losses for informal vendors. The pandemic has also had a significant impact on mental health. In Thailand, Dr Hanvoravongchai explains that there has been a two thirds increase in mental health hotline calls in the first quarter of the year, an estimated 30% increase in suicide attempts, and an additional 2,000 suicide deaths are expected in 2020.

Dr Rasanathan explains that the direct impact has so far been minimal in Cambodia, similar to other countries in the region. Thus far, despite many imported cases there have been no deaths and no healthcare worker infections. In general, the broad impact on the public health sector and health service utilisation has been limited. However, the socioeconomic impact is significant. Cambodia’s major economic sectors include tourism, the garment industry, construction, and foreign direct investment, all of which have been drastically affected by the COVID-19 pandemic. Cambodia recently became a Lower Middle Income Country (LMIC) and has been improving access to health services and working towards Universal Health Coverage (UHC). Given the fiscal outlook, some of the progress may be delayed.

There are also lessons to be learned from the Vietnam case. Dr Tran describes the proactive approach adopted by the government. Compared to many countries in the world, Vietnam implemented many public health strategies

rapidly, including telemedicine and ensuring that adequate information was communicated across the country by translating documents into 25 ethnic minority languages to reach ethnic communities in rural and mountainous areas. The government identified high risk populations that are already suffering from communicable and non-communicable diseases and required healthcare workers to visit houses and deliver medicines to try and limit health service disruption during the COVID-19 measures that restricted movement. The country has been lucky to have reportedly a low number of cases and COVID-19 caused deaths. However, Dr Tran stresses that this is only the beginning of the pandemic and Vietnam and the ASEAN region will have to be vigilant in mitigating the risks of the disease outbreak in terms of direct and indirect effects.

Dr Khor explains that special attention should be given to vulnerable populations such as migrant workers and refugees. Official estimates show that 1-1.2% of the ASEAN population are migrant workers or refugees. However, these official estimates do not include a large number of undocumented irregular migrant workers living in Southeast Asia. For example, a reported 2.2 million migrant workers and 180 thousand refugees live in Malaysia, with some estimates indicating that an additional 2-6 million undocumented irregular migrants are also living in the country. The COVID-19 pandemic has increased inequality among these populations in a variety of ways. These populations often have unequal access to screening and treatment and also tend to have poor housing conditions and nutritional status, making them less able to mitigate risks. They also have weaker economic rights such as healthcare funding, paid leave, and poorer working conditions. Xenophobia towards these populations has increased in cases. Furthermore, due to language barriers they may receive disinformation or misinformation. Public response tends to be hampered by the fact that various government agencies involved in health security often have conflicting policies in how to deal with migrant and refugee populations.

There are a number of specific actions that can be taken to mitigate the risks posed to migrant and refugee populations. These include health insurance for undocumented workers, as Thailand implemented in 2001; offering free COVID-19 testing for migrant workers as they do in Malaysia and Vietnam; increasing public education efforts to include local languages of migrant workers to allow them to follow proper guidance; and improving housing standards as Malaysia and Singapore have done in the current outbreak. Dr Badaruddin explains that Singapore was initially seen as a model country that had spent great efforts to put in place pandemic preparedness plans – in response to the SARS epidemic of 2003. However, as the spread of the virus amongst the migrant workers population demonstrated, there remain questions to be answered of how to address this not only in the current context, but in the future too. “You are only as strong as your weakest link,” says Dr Badaruddin. He expands on the need to improve the health system to be responsive as a whole – in particular to lower income groups.

The panellists show that there are warning signs of worsening health inequity. They call for evidence-based efforts to mitigate these risks and encourage building on the efforts made by the region to reduce inequality over the past decades. One way forward is to continue these sharing efforts in the hopes to learn from each other both in terms of challenges faced and best practices adopted. A mechanism to do this would be to increase the role of ASEAN in pandemic preparedness and response. The panellists argue that health should be higher on the ASEAN agenda and identified that the alliance can help facilitate things such as common stock piling, coordination efforts, united bargaining power to access vaccines, therapeutics and diagnostics, technical sharing, and setting common standards in order to leverage their combined strengths and achieve better outcomes for the whole region.

Webinar 2: Analysing the Impact of COVID-19 on Maternal and Child Health in the ASEAN Region

- Dr Courtney Davis, Education Core Co-Lead, SDGHI and Staff Physician, KK Women's and Children's Hospital (moderator)
- Mr Björn Andersson, Regional Director, United Nations Population Fund, Bangkok, Thailand
- Ms Mariam Khan, United Nations Population Fund, Representative, Lao PDR
- Dr Paul Pronyk, Chief, Child Survival and Development, United Nations Children's Fund, Indonesia
- Dr Katherine Ann V. Reyes, Assistant Professor and Associate Dean for Research, Department of Health Policy and Administration, College of Public Health, University of the Philippines
- Dr Maria Asuncion Silvestre, President, Kalusugan ng Mag-Ina, Inc (KMI; Translation: Health of Mother and Child), Neonatal-Perinatal Medicine

“Maternal and child health advocates worldwide are concerned about the effects of COVID-19 on health outcomes and health inequities on maternal and child health that extend beyond the direct impact of the virus, to disruption and decreased access to other essential health services and effects of economic downturn on household health, nutrition and government services” says moderator Dr Davis. In Webinar 2, SDGHI invited a group of experts to analyse the impact of COVID-19 on maternal and child health in the ASEAN region.

Presenting the United Nations Population Fund's (UNFPA) perspective, Mr Andersson notes that prior to COVID-19, it was estimated that in the Asia Pacific region ten women die every hour in pregnancy and child birth. For ASEAN countries in particular, there has been significant progress, but aggregate statistics can disguise inequalities. Women who are most at risk live in geographically remote locations and/or come from poor socioeconomic groups or from ethnic minority groups who are least educated. Mr Andersson explains that the COVID-19 pandemic has put further pressures on the health system and has disrupted sexual and reproductive health services which has brought huge challenges for the Southeast Asian region. These services are often essential and lifesaving. The results of the UNFPA modelling analysis on the impact of COVID-19 pandemic indicate that if lock downs continue and women are unable to access family planning and maternal health services during this health crisis, there will be an increase in unintended pregnancies and preventable maternal deaths.

His colleague, Ms Mariam Khan, elaborated on the situation in Lao PDR where women work predominantly in the informal sector and are therefore more vulnerable to the socioeconomic consequences of the COVID-19 pandemic. Traditionally, women carry the brunt of housework and this has increased under lockdown efforts. Women are also participating in the front lines of combatting the COVID-19 outbreak. About 70% of the health workforce is female. UNFPA conducted a geospatial mapping of vulnerabilities in the country and found evidence that in 2020 there has been lower access to antenatal care than the past three years. Deliveries in health facilities have significantly reduced from 2019 rates, dropping from 27,911 in the first quarter of 2019 to 25,457 in the first quarter of 2020. Uptake in family planning services has decreased, which can impact maternal and child morbidity and mortality. The COVID-19 pandemic is projected to potentially cause a 30-50% reduction in maternal care. UNFPA has been providing appropriate public health messaging and has also been providing PPE and psychosocial support to midwives and maternal and child health workers.

Though research is ongoing, so far the evidence indicates that children may be relatively less impacted by the direct impact of COVID-19 than adults and the elderly. In Indonesia, however, the indirect effects in terms of reduced access to other health services, homeschooling mitigation strategies and the socioeconomic consequences of the associated economic downturn have put children particularly at risk, informs Dr Pronyk

representing the United Nations Children’s Fund (UNICEF), Indonesia. He shares that according to a recent study conducted in May by UNICEF that, while only 8% of primary health care facilities, known as Puskesmas, have faced severe service disruptions, 76% of village-level health posts, known as Posyandus, have experienced severe service disruptions. These village health posts deliver a limited number of services, which include growth monitoring, immunisation, antenatal care and vitamin A supplementation, all of which have enormous impact on child survival and healthy long term development. Further analysis, conducted in June 2020, of 5,329 facilities showed that 84% of facilities had seen some sort of immunisation service suspension. This is due to a variety of factors including the situation that village health posts can be chaotic and busy when they operate, making communities hesitant to come. Community health workers are often not provided with protective equipment that healthcare providers receive in tertiary and secondary hospitals; therefore, healthcare providers fear that they may contract COVID-19 when getting close to patients. There have also been supply chain disruptions, reducing access to vaccines. Diversion of funding for core maternal and child health programmes towards COVID-19-related activities results in staff being pulled away from immunisation to manage COVID-19. These various factors have resulted in reduced immunisation coverage by 35%. There will have to be a “new normal”, with critical focus on improving access to village health posts to devise new safe service mechanisms to mitigate these risks.

Prior to COVID-19, the Philippines has been less successful in reducing maternal mortality ratios to achieve the United Nations Sustainable Development Goals (SDGs) targets compared to their success in reducing under five and infant and neonatal mortality rates explains Dr Reyes. This has in part been due to the fact that women require better access to health insurance and healthcare. Those from financially disadvantaged backgrounds also tend to have less financial coverage for maternal care and skilled birth attended deliveries. Recent progress has been made with the Philippines passing a universal healthcare law to provide insurance for all to improve access to healthcare. However due to COVID-19 there has been a delay in the rollout of the universal health coverage activities. Reproductive health and maternal care has been severely reduced. UNFPA reports an almost 50% reduction in seeking reproductive or family planning services and they project that this will result in around 2 million additional pregnancies in the coming months – with approximately 10 % of those being to women less than 21 years old. There has also been projections that the cost of deliveries will increase due to COVID-19. Primary care services need to be restored, making it safe for women to consult primary care providers.

Dr Silvestre expresses concerns over the post COVID-19 guidelines issued with regard to the routine separation of mothers and newborns. These guidelines superseded the evidence based standard package of practices: FIRST EMBRACE (early essential newborn care) that had been introduced in The Philippines in 2008. Adherence to these practices is especially important given that almost half of under-five mortality occurs in the first week of birth, concentrated in the first two days. The measures introduced post COVID-19 negated this approach and is a cause for alarm amongst the maternal and child healthcare community. Dr Silvestre explains that civil society has been working with epidemiologists to curate, update, validate and rapidly disseminate appropriate clinical practice guidelines during the pandemic as new information is being learned every day.

Ongoing research efforts are required to identify the full direct and indirect impact of COVID-19 on maternal and child health and to assess what solutions are required to reduce some the inequities this pandemic has exacerbated. There are best practices the region can share with each other and there is hope that innovations will help mitigate some of the setbacks ASEAN countries are facing in achieving the sustainable development goals.

Webinar 3: Applying a Health Inequity Lens to the Impact of COVID-19 on Food Security and Nutritional Status in the ASEAN Region

- Prof Martin Bloem, Inaugural Robert S. Lawrence Professor and current director of the Johns Hopkins Center for a Livable Future, Department of Environmental Health and Engineering, Johns Hopkins Bloomberg School of Public Health (moderator)
- Dr David Dawe, Senior Economist, Regional Office of Asia Pacific, the Food and Agriculture Organization of the United Nations
- Prof Emorn Udomkesmalee, Senior Advisor and Former Director of the Institute of Nutrition of the Mahidol University, Thailand and Adjunct Associate Professor, Department of International Health, John Hopkins University
- Dr Chandavone Phoxay, Deputy Permanent Secretary, Cabinet, Ministry of Health, Laos PDR
- Mr Axton Salim, Director, PT Indofood Sukses Makmur Tbk

The Food and Agriculture Organization of the United Nations recently released a report estimating 688 million people in the world are undernourished of which 65 million live in the ASEAN region. Furthermore, 25% of children are estimated to be stunted in Southeast Asia explains Dr Dawe. He argues that hunger and malnutrition were significant challenges for the ASEAN region before COVID-19. He elaborates that the poor suffer disproportionately. Children born into the bottom 20% wealth quintile are twice as likely to be stunted than those coming from the top 20% wealth distribution.

Due to the COVID-19 pandemic the Gross Domestic Product (GDP) of advanced economies are predicted to contract by 8% this year and Asia's GDP is expected to contract by 1% - a large reduction compared to the 5.5% growth rate it experienced in 2019. This has translated into significant job losses and reduced incomes, making it difficult for people to afford food in general and, particularly, nutritious food that often costs more.

Fortunately, food markets and food supply chains have generally held up well and food prices have remained relatively stable. Dr Dawe recommends that governments implement policies that help control the virus, including: reducing infection rates at food processing industries so the workers are not afraid to go to work; expand social protection measures and increase incomes of families who have lost their jobs (though this will be difficult for many low income countries who face severe budget constraints); work with the private sector on food supply chain functions (so far governments have done well in maintaining this); avoid food export restrictions (they have largely ended in Southeast Asia); and guard against future shocks by investing in resilient food systems.

Prof Udomkesmalee explains that even pre-COVID-19 large inequities existed across the ASEAN region and within countries. She elucidates the importance of sub-national aggregates versus only focusing on country averages. Prof Udomkesmalee warns that global modelling efforts have indicated that the impact of increased prevalence of wasting will lead to 18-23% additional deaths. Health is a prerequisite for economic recovery and food and nutrition are a prerequisite for health, argues Prof Udomkesmalee. She states that we must strengthen the immune system of populations through good nutrition strategies to make "strong warriors" to combat COVID-19. Therefore, essential health services for women, children, and the elderly such as vaccination programmes, Vitamin A supplementation programmes, and antenatal care that have faced disruptions due to the pandemic must be restored.

Prof Udomkesmalee also optimistically highlights that COVID-19 has brought some positive opportunities such as an increased consumer demand for health, nutrition and wellness. We should capitalise on this trend, ensuring long term efforts are put in place to make food systems more resilient and nutritious and improve the quality of

diets. Prof Udomkesmalee believes that the ASEAN region is innovative and should use these skills to create solutions for food and health systems to achieve these goals.

Dr Phoxay points to the 11% decrease in stunting in 2017 as a multi sectoral achievement. However, at 33%, it still remains a major issue to be tackled. Even prior to COVID-19 Lao PDR was faced with multiple burdens of malnutrition, with nearly 60,000 children suffering from severe acute malnutrition. Many people were micronutrient deficient, while overweight and obesity amongst certain populations is on the rise. These multiple nutritional challenges are being exacerbated by the COVID-19 outbreak. The lockdown measures have resulted in a 30% loss in government revenue and a 3.6-6.5% reduction in GDP. Government budgets have faced a 10% reduction for all sectors, including health, as COVID-19 interventions have been prioritised.

Thus far there has been an adequate food supply in Lao PDR, however affordability for many households has become an even greater challenge. The upcoming rainy season and potential flooding could also hinder food accessibility. Disruptions of routine essential health services has included micronutrient supplementation. Challenges have appeared in the supply chain of maternal and child health nutrition commodities due to inflation, costs and funding constraints. To attempt to mitigate some of the impact of the pandemic, the government has prioritised regions with low coverage, collaborated with the private sector and implemented strong health education programmes across the nation. Dr Phoxay states that investing in nutrition is a key component of human capital development and central for fighting disease and poverty.

Mr Salim describes how the current outbreak has been unprecedented and has required a trial and error method by governments. Most countries are forced to play a tug of war with health and the economy. Mr Salim explains that due to the economic impact of COVID-19 on nutrition, it will be difficult for Indonesia where, pre-COVID-19, 6.6 million children were stunted, to reach the government's target of 10% stunting rates by 2020. Mr Salim explains that about 56.5% of workers are informal in Indonesia, of which many have had their jobs impacted due to COVID-19. In May 2020, an estimated 1,032,960 formal workers were told to stay home unpaid or at reduced pay and about 375,165 formal workers were laid off. Furthermore, at the beginning of the pandemic, export countries prioritised domestic needs, which led to price increases for staple products such as rice, wheat, and corn. In this way the reductions in household purchasing power coupled with the supply chain disruptions have led many to sacrifice quality for quantity.

Mr Salim argues that the private sector can help mitigate risks by continuing to fortify staple foods, despite relaxations in regulations. Additionally, Mr Salim shares that a key strategy will be to focus on community outreach and care. He describes a successful case study of how to strengthen and make financially sustainable Posyandus, community village health centres, which are run by volunteers through public private partnerships. The programmes helped train volunteers in health, food production and selling to financially support the activities of the village health centres. Villages saw a 30% reduction in undernutrition rates where programmes were implemented.

The moderator, Prof Bloem, explains that typically we are used to facing emergencies that affect a certain part of a country, however COVID-19 is a "global emergency", and thus it has been particularly challenging to respond at a global emergency level. He summarises that the pandemic has had significant economic impact, which has led to many households to cope by reducing children's animal food consumption putting them more at risk of micronutrient deficiencies and stunting. This has implications for child morbidity and mortality. He highlights how the speakers show the importance of community engagement in addressing the challenges and mitigating the impact of the pandemic.

Webinar 4: How has COVID-19 Impacted HIV/AIDS, TB and Malaria Programmes in the ASEAN Region?

- Prof Tang Shenglan, Deputy Director, Duke Global Health Institute and Faculty, SDGHI (moderator)
- Dr Marijke Wijnroks, Chief of Staff, The Global Fund to Fight AIDs, Tuberculosis and Malaria
- Amita Chebbi, Senior Director, Asia Pacific Malaria Elimination Network
- Dr Esty Febriani, TB technical adviser, Lembaga Kesehatan Nahdlatul Ulama

Prof Tang opens the fourth session by remarking that “COVID-19 has had a profound impact on almost every aspect of our society. It has caused an economic downturn in almost every country and many countries have been overwhelmed in meeting these challenges brought by the COVID-19 pandemic”. This has included, he elaborates, combatting other communicable diseases in addition to COVID-19. In this session, panel members present global, regional and country level perspectives on how COVID-19 has impacted communicable disease programmes in the ASEAN region focusing on HIV/AIDS, Tuberculosis (TB), and Malaria.

Dr Wijnroks explains that the Lancet recently published modelling estimates indicating excess mortality due to COVID-19 over the next five years could increase globally by 10% for HIV, 20% for TB, and 36% for Malaria. This is due to decreased access for HIV treatment, lack of diagnosis for TB, and later initiation of treatment for Malaria with disruption in bed net campaigns. The Global Fund is monitoring levels of disruption at the country level every two weeks and has made it possible for countries to use savings from existing programmes for COVID-19 responses (both direct and indirect, such as adapting HIV, TB, and Malaria programmes). They are also closely monitoring global supply chains. Thus far, lockdown measures in China and India, which are major suppliers of generic medicines for treatment that many low and middle income countries rely on, have still managed to produce at relatively close to previous levels. A major barrier at the moment is transport. The capacity of air freights has reduced as there are less flights globally. Furthermore the Global Fund is negotiating with private sector firms such as Abbott to mitigate the reprioritisation of production efforts from rapid diagnostic tests for diseases such as malaria to those for COVID-19. On a positive note, Dr Wijnroks also describes how innovations in tele-health has helped reduce stigma concerns as anonymised diagnoses and private counselling has become accessible.

Ms Chebbi shares that pre-COVID-19, the region has witnessed many success stories for combatting and eliminating Malaria, including Singapore that has been Malaria free since 1982. However, Ms Chebbi warns that Malaria has become an invisible disease as it has largely been eliminated from ASEAN urban centres, but still greatly burdens people living and working in remote regions of their countries. These people are often some of the most vulnerable populations of a nation. Furthermore, this problem is compounded by the increasing risk of drug resistance. Drug resistance has been exacerbated by the existence of sub-standard and falsified medicines. Due to global supply chain disruptions, this is expected to increase as a result of COVID-19. APMEN is advocating for regional action to mitigate this disruption.

Ms Chebbi further explains that some of the traditional prevention strategies such as bed net campaigns have not been suitable for those most at risk of contracting Malaria, such as typical forest goers on the borders of Thailand and Cambodia. These forest goers will often be in the forest for weeks at a time in areas that are dense, wet, with a high risk of contracting Malaria and far from healthcare centres. Recent innovative strategies have included distributing insecticide treated hammocks. These and more traditional prevention and vector control strategies have faced service disruptions due to the reprioritisations due to COVID-19. However, drawing on HIV, TB and immunisation programmes, many community level health workers have tried to mitigate these disruptions by going door-to-door to deliver bed nets and other essential services.

In Indonesia, healthcare services for TB have also been significantly impacted explains Dr Febriani. On 30 March 2020, Indonesia released the new protocol for their TB programme due to the COVID-19 pandemic. This new protocol outlines logistics matters of drug stocks and personal protective equipment (PPE), recommends specific referral facilities separate from COVID-19, and calls for the monitoring of drug adherence through tele-health. Dr Febriani shares results from a recent survey evaluating the protocol implementation by healthcare workers and patients show that there are significant human resource constraints, as the majority of district staff are involved in the COVID-19 task force. Due to this there is also limited supervision. Furthermore, many healthcare facilities reported not enough stocks of masks until December 2020 as well as many not available for TB patients. Despite additional funding that has been made available recently by the Global Fund, there are TB drug stock shortages and many TB diagnostic laboratories have shifted to COVID-19 activities. More than half of hospitals engaged in management of drug-resistant TB programmes are also COVID-19 hospitals which can put vulnerable TB patients at risk. Use of digital technology to monitor adherence has been scaled up quite widely but gaps still remain. Some districts have also implemented home visits, however there are concerns of being able to adequately equip these community health workers with protective equipment. Dr Wijnroks further explains that the worry with TB is that due to stigma and confusion with COVID-19, many patients will go undiagnosed and thus be more likely to spread TB to other people. To mitigate this, Indonesia is developing innovative community led monitoring approaches.

The speakers conclude by highlighting the strong need for greater integration in health systems. Disease programmes can no longer work in silos - all actors need to come together at the front lines. They recommend that infrastructures from HIV and TB programmes can be repurposed for the new normal. They further stress the importance of strengthening primary care systems and community engagement. This is critical for early diagnosis, decreasing the level of misinformation and increasing access to care, especially for essential health services, for those most vulnerable. Many countries in the Southeast Asia region have already been devising innovative community-based approaches to deal with the impact of the current pandemic and there are many lessons high income nations, primarily focused on hospital-based care, can learn from low and middle income countries.

Webinar 5: How has COVID-19 Impacted Non-Communicable Diseases Programmes in the ASEAN Region?

- Prof Carolyn Lam, Senior Consultant, Department of Cardiology, National Heart Centre Singapore, Professor of Duke-NUS Cardiovascular Academic Clinical Program, and Faculty, SDGHI (moderator)
- Deborah Gildea, Head of Novartis Social Business, Asia
- Adjunct Associate Professor Tan Wei Chieh Jack, Deputy Head of Cardiology and Director of the Coronary Care Unit, National Heart Centre Singapore and Head of Cardiology, Sengkang General Hospital
- Dr Feisul Idzwan Mustapha, Consultant Public Health Physician and Deputy Director Non-Communicable Disease Section, Disease Control Division, Ministry of Health, Malaysia
- Assistant Professor Borwornsom Leerapan, Division of Health Systems Management, Department of Community Medicine, Faculty of Medicine Ramathibodi Hospital Mahidol University, Bangkok, Thailand

In the fifth and final webinar, the speakers delve deep into how COVID-19 has impacted non-communicable diseases (NCDs) with a specific focus on cardiovascular disease and diabetes. The moderator, Prof Lam, explains that people with chronic cardiovascular diseases are at greater risk of having COVID-19 and having severe disease. Furthermore, Prof Tan and Dr Mustapha elaborate that COVID-19 and associated control measures have adversely impacted the entire care continuum of NCDs.

This includes everything from prevention, early detection, diagnosis and management at both the primary and secondary level, rehabilitation and palliative care. Dr Mustapha says that COVID-19 and the associated lock-down measures have impacted prevention efforts such as HPV vaccination campaigns that were postponed in some countries while schools were closed and turned to online learning. Community screening programmes have also been disrupted and fear of contracting COVID-19 has deterred people from seeking diagnosis. Dr Mustapha highlights that rehabilitation and palliative care programmes have been the most affected by the pandemic but often get less attention than diagnosis and management strategies. Dr Tan describes how in the first wave of the COVID-19 outbreak, there was an immediate impact on mortality and morbidity of vulnerable persons suffering from NCDs. In the second wave, there was an issue of resource restrictions for urgent non-COVID-19 conditions. The third wave, Dr Tan explains, will be the severe impact of interrupted care for chronic conditions. He warns this collateral damage could be significant and that it will be a number of years before we truly see the impact. Furthermore, Dr Tan explains that a fourth wave of mental stress and burnout could result for victims and family members of the COVID-19 pandemic, healthcare and frontline workers and to the general public due to lock down measures. Job losses and economic repercussions might also become substantial. The full impact of these consequences will be difficult to measure – for example, the status of mental stress has been difficult to capture at a national level even prior to COVID-19.

Vulnerable people, such as the elderly, those who live in rural and remote villages and migrant populations will be most affected by the impact of COVID-19 on NCD care. Ms Gildea shares that in Vietnam Novartis Social Business works with 1,900 primary healthcare centers in rural communities in the North and in the Mekong region. They have had to delay this work due to the lock down measures and reprioritisation of healthcare activities towards the COVID-19 response. Only now are they starting to begin their work again. However, new door-to-door strategies mean that it will take a lot longer to reach the same number of people that is required to strengthen these primary healthcare systems to reach vulnerable communities. In Europe and North America, COVID-19 also had a particularly severe impact on nursing homes that house elderly people, often with a higher burden of NCDs. However, in Southeast Asia it is more common for the elderly to live with their families. Mitigating the impact of COVID-19 on the elderly will have to take a different approach in Southeast Asia, explains Assistant Professor Leerapan.

Digital health has scaled up rapidly during the pandemic and has helped increase access to care for many patients. However, not all benefit equally from these advancements. For example, low income households can have limited internet access and data plans and the elderly may have difficulties understanding how to use these new technologies, shares Dr Leerapan. Dr Mustapha further explains that a recent survey of diabetic patients in Malaysia showed that about half of those surveyed would prefer to acquire information about diabetes through television or WhatsApp, but only about 2% were interested in receiving information through an app. However, there have been advancements in simple, easy to use apps for NCD care that may change this, explains Ms Gildea. Ms Gildea expands that there are still cost and regulation concerns for many digital health solutions but there have also been cost effective strategies such as using technology to train primary healthcare workers. Dr Leerapan argues that there is no silver bullet and we will require a hybrid model to improve health systems so that they reach everyone in the community. This could include strengthening primary healthcare and in certain circumstances, door-to-door care to also reduce the burden of hospitals that, in places like Thailand, can have overflowing waiting rooms because people prefer to bypass the community health centres, believing they will receive better care at hospitals. Dr Tan also advocates that it could be an opportunity for low and middle income countries in Southeast Asia to learn from the mistakes of expensive, overly hospital-focused health care systems in high income countries and leap frog to more dynamic and efficient health care systems.

Dr Feisul shares results from an online national survey which indicated that in Malaysia 18% of people were eating more fast/instant food and 27.7% of respondents were drinking more sugar-sweetened beverages than usual during the recent lockdown measures. The long-term impact of COVID-19 on healthy lifestyles such as exercise and healthy diets is still to be determined and contextualised to individual economic means and environmental surroundings. There has been suggestions that it has encouraged some to become more healthy and increased health as a priority, while others with reduced incomes and reduced access to public space, have had to cope by shifting to more calorie-dense foods often lacking in fibre and micronutrients.

The speakers argue that we should not let the acute crisis go to waste. COVID-19 could help encourage not just governments but also individuals to reprioritise health. This type of cultural shift in priorities coupled with appropriate public health strategies could help prevent NCDs in the future. Furthermore, COVID-19 will continue to affect the world and the ASEAN region for some time and we must adapt strategies across the NCD care continuum to ensure those most vulnerable are not left behind. This includes an often neglected component of the care continuum, NCD research, of which efforts must continue to improve prevention, diagnosis and response.