Meeting Summary: Second Advisory Group (AG) meeting for COVID-19 Vaccination Policy Research Decision Support Initiative in Asia (CORESIA) and Regional Study on Vaccine Certificates

Date: Wednesday, 21ˢᵗ July 2021
Time: 2.30 – 4 pm (Thailand)

Attendees *(in alphabetical order)*

Advisory Group (AG) members and observers
1. Dr. Derrick Heng, Ministry of Health, Singapore
2. Dr. Kalaiarsu Peariasamy, Ministry of Health, Malaysia
3. Dr. Renu Madanlal Garg, WHO Thailand
4. Dr. Suwit Wibulpolprasert, Ministry of Public Health, Thailand
5. Dr. Supachai Panitchpakdi, Former United Nations and Conference on Trade and Development (UNCTAD)
6. Prof. Nguyen Thi Kim Tien, Former Minister of Health, Vietnam
7. Dr. Pushpa Ranjan Wijesinghe, World Health Organization Southeast Asia Regional Office (WHO SEARO)
8. Prof. Thiagarajan Sundararaman, National Health Systems Resource Centre (NHSRC) and People's Health Movement (PHM), India

Secretariat

1. Ms. Aparna Ananthakrishnan, Health Intervention and Technology Assessment Program (HITAP)
2. Ms. Chayapat Rachatan, HITAP
3. Ms. Dian Faradiba, HITAP
4. Assoc. Prof. Hsu Li Yang, NUS
5. Mr. Manit Sittimart, HITAP
6. Mr. Sarin KC, HITAP
7. Ms. Saudamini Dabak, HITAP
8. Assoc. Prof. Wanrudee Isaranuwatchai, HITAP & St. Michael's Hospital and Institute of Health Policy, Management and Evaluation, University of Canada
9. Dr. Yot Teerawattananon, HITAP & NUS

Presenters/Representatives
1. Dr. Jing Lou, NUS
2. Dr. Hung (Bình Min), Ministry of Health Vietnam
3. Dr. Khuang Anh Tuan, Ministry of Health Vietnam
4. Dr. Phuong Manh Hien, Vietnam

Regrets
1. Prof. David Heymann, London School of Hygiene and Tropical Medicine (LSHTM), UK Prof.
2. Prof. George F. Gao, Chinese Center for Disease Control and Prevention & Institute of Microbiology, Chinese Academy of Sciences, China
3. Dr. Go Tanaka, Japan International Cooperation Agency (JICA), Japan
4. Prof. Kishore Mahbubani, MoFA Singapore
5. Assoc. Prof. Natasha Howard, NUS
6. Dr. Parinda Wattanasri, Institute of Preventive Medicine Education, Thailand
7. Dr. Sihasak Phuangketkeow, Royal Thai Government, Thailand

1	**Welcome and Advisory Group Member Introductions**
	Distinguished Advisory Group (AG) members and all attendees were warmly welcomed to the 2nd AG meeting of the CORESIA project. The event began with a few housekeeping rules, following which all AG members briefly introduced themselves, outlining their current positions and affiliations.
2	**Objectives of the meeting**
	The objectives of the meeting were four-fold: 1. To provide updates on CORESIA activities. 2. To present preliminary results from the Thai public and stakeholder survey. 3. To present the preliminary results from the impact assessment study (bilateral travel model between Thailand and Singapore). 4. To engage in open discussion and reflection on the concepts, methods and preliminary results presented as well as determine how these might be adapted to suit the guidance document.
3	**Update on Project Status**
	The CORESIA project update included three highlights:
	Updates on surveys, which were conducted globally and in Working Group (WG) member countries
	As of July 21, 2021, the global public survey (in English) was still ongoing, and the country-level surveys were at various stages of implementation. For example, South Korea, Japan, and the Philippines, are awaiting formalities (e.g., terms of reference, ethical approval, and letter of support); Lao PDR and Indonesia are translating and/or uploading surveys onto the survey online platform and India's participation in the surveys is yet to be confirmed.
	Launch of the CORESIA website
	The CORESIA website serves as a repository for vaccination and cross-border travel regulations at the national level, with a particular focus on the global usage of vaccination certificates and other comparable instruments. The primary map-based dashboard compiles this data into an easily digestible visual style, which is supplemented by a thorough table that allows for cross-country comparisons. The website also offers a selection of news and media articles that are most important to these discussions, which will be updated as the global situation changes.
	The website will also act as a valuable platform for sharing CORESIA initiative knowledge products and significant developments with the public, as well as providing a chance to display relevant information from each of our WG member countries. To access the CORESIA website, please click here.
	Events and Publications

Important discussions on the CORESIA project have been featured on a variety of platforms, including:

- Peer-review publications
    - The Lancet: <u>Research collaboration to inform quarantine policies for health-care workers</u>
    - British Medical Journal: <u>Vaccinating undocumented migrants against Covid-19</u>

- Webinars
    - <u>Panel presentation at Geneva Graduate Institute's webinar on cross border travel as part of the 74th World Health Assembly</u>
    - <u>ASEAN-ITTP COVID19 webinar series: Establishing Health Certificate For Travelling Within ASEAN Countries</u>

- Working groups
  HITAP now part of two important working groups: Universitas Padjadjaran, Indonesia: ASEAN ITTP-COVID19 and National University of Singapore: ASEAN Travel Policy dialogue. It is likely that HIATP will also take part in a discussion on vaccine security as part of the Thai Governments' representation at the ASEAN Health Cluster 3

- Blogs and policy briefs
    - <u>A Framework to Assess the Impact of COVID-19 Vaccination Certificates</u>
    - <u>Phuket Sandbox Policy</u>
    - <u>Thailand's 120-day re-opening plan</u>

4	**Preliminary results from Thai surveys**

Preliminary results from Thai surveys

In Thailand, surveys to the public and organisations/stakeholders have been implemented. These are the preliminary results:

Results from public survey
Overall, there were around 1,100 respondents in total (as of 18 July 2021), ranging in age from 25 to 65 years old. They were from various occupational sectors, majority of which were governmental and private employees.

The top three challenges in adopting travel instruments were public health (different vaccine efficacy and emerging of new variants), social justice (vaccine distribution and accessibility and technology accommodating those instruments), and data privacy (sharing personal information).

As data privacy is a major concern, data regarding participants trust in data sharing was also be pooled. In this instance, the majority reported feeling comfortable in sharing personal information (e.g., medical history) with individuals from the public and private sectors. When it comes to rank their trust in the private sector versus the government, it was found they felt more comfortable sharing information with the private sector.

Regarding association between trust and adoption of travel instrument, it appears that those who were hesitant to disclose personal information with others were less likely to accept to use such instruments. Additionally, those hesitant to share their personal information with others were less likely to accept using such travel instruments.

	Results from Organisation/ Stakeholder survey
	There were 87 organisations, from both the health and non-health sectors, who responded to the survey.
	Thai stakeholders or organisations have acknowledged that travel instruments should be based on vaccination and immunity. Also, in addition to the paper format, an electronic version should be available.
	Tourism, restaurant/department stores, and logistics/transportation were identified as industries that stand to benefit financially from the introduction of travel instruments. Similarly, these sectors tend to be the most affected by COVID-19 in terms of financial revenue. For incoming travellers from abroad, risk-based testing and quarantine were the preferred policy measures. This finding appears to be consistent with that of participants in the health and non-health sectors.
	The most concerning challenge for stakeholders in the health sector was public health, relating to increased risk of local infection because vaccination and testing cannot provide complete protection and new virus variants in other countries can lead to breakthrough cases. On the other hand, respondents from the non-health sector were more concerned about ethics and social justice, as it relates to limited and inequitable access to vaccines and digital technologies to access instruments, which benefits only certain groups of the population.
	In terms of acceptable vaccination coverage prior to the adoption of such instruments, respondents from non-health sectors expect higher vaccination coverage, as much as 80-100% of the Thai population, whereas those from the health sector tend to accept a lower range (from 60-80%).
	Summary
	In conclusion, most respondents in both surveys believe that travel instruments should be adopted in Thailand. They suggest that both vaccination and immunity-based instruments should be considered, and both electronic and paper forms should be accessible. Importantly, at least 60% of people should be vaccinated before such instruments are introduced for people to enter the country.
	Please find here the presentation slides (numbers 9-20) which outline these survey findings in greater detail.
5	**Discussion**
	The use of survey results
	The survey results are useful in providing recommendations to those who have been vaccinated but may also offer advice to those who have not been vaccinated but wish to travel. For instance, people in Africa are willing to travel for medical reasons despite inadequate vaccine availability in the continent. The survey results can help clarify some much-needed exceptions to the use of these travel instruments. A similar example is that of migrant labourers across the world. One must be cautious to note that not all users of travel instruments are tourists or businesspeople, but also those who need to move for livelihood and medical reasons.
	Given the current vaccine supply and the current rate of vaccination, a question was raised about determining a realistic timeline for Thailand to achieve at least 60% vaccination coverage.

One of the interesting findings, which warrants further investigation, was associated with many respondents reporting higher levels of trust in the private sector than in the government in sharing personal information. This could be rechecked with a larger sample.

Developing clearer definitions surrounding the issues of:

- Distinctions between vaccination-based and immunity-based instruments
- Risk-based testing: What are the standards for risk-based testing and who will define what is the risk level of the country? Risk within the pandemic is a highly volatile concept, so it will also need to be modified in line with these fluctuations.

Questions about the survey

The AG members also raised specific questions on the survey, as listed below:

- Does the sample size represent the general population or international travelers? Who is the target population? This is important to be considered before analysing the results to avoid bias. A suggestion was to do a weighted analysis with the standard population.
- What type of quarantine would be appropriate? Home quarantine or Alternative State Quarantine (ASQ)? How long is the quarantine period and what compliance could be seen?
- How will the surveys capture recommendation for those who have recovered from COVID-19?
- Will the survey also consider issues around digitisation of instruments or shareability of instruments across countries?

Further considerations

- In terms of policy implications, an international standard of vaccination certificates should be determined to ensure their validity and authenticity.
- Many people who were infected with COVID-19 may not have known they were infected and would not have undergone a PCR test. As a result, the vaccination certificate must include not only the status of vaccination, but also a negative PCR test. The issue of seropositivity in countries with large outbreaks also has an impact on the use of the documents if they are to include immunity – especially relevant for those marginalised like migrant labour.
- It is important to consider whether a booster dosage is necessary, as well as issues around mixing-and-matching of vaccines.
- When it comes to implementing a vaccination certificate, three principal elements to consider across countries and regions as we start "learning to live with COVID-19", are acceptability of vaccine candidates in offering protection from severe disease (and not from being infected), risk-tolerance and the appetite for risk across countries and regions, and risk budgeting from entry of vaccinated travellers with these instruments who could be infectious (on how countries will deal with importation risk).
- The issue of misinformation and information fragmentation is also a peripheral issue, but it is incumbent upon us all to ensure that communication on these instruments is prioritised alongside any policy decisions to ensure public buy-in.

Bilateral travel economic analysis between Thailand and Singapore: by Dr. Lou Jing, NUS

The objective of the model is to seek out COVID-19 bilateral testing and quarantine regulations that would be advantageous to both Thailand and Singapore. The economic model is built according to the following steps (please refer slides 23-34, here for more details):

1. Construct a willingness-to-travel model by collecting data on number of travelers from Thailand to Singapore and from Singapore to Thailand
2. Construct a transmission model by collecting number of Thailand or Singapore travelers which are diagnosed at each stage of travel and number of secondary cases caused in Thailand or Singapore
3. Conduct a feasibility analysis to see if the bilateral policy results in a higher number of imported/secondary cases in Thailand or Singapore than the maximum tolerance level. If it is above the threshold, it will be removed; otherwise, it will be used to build an economic model.
4. Construct an economic model for which the primary outcome is net monetary benefit of Thailand or Singapore
5. Once net monetary benefit of Thailand or Singapore is determined, it will be compared across all feasible bilateral testing and quarantine policies which are beneficial for both sides.

Preliminary results

There are two scenarios included in the model:

Scenario 1: Unvaccinated travelers are quarantined for 14 days by both countries; vaccinated travelers have varied quarantine lengths (0-14 days), which can be different between Thailand and Singapore; and PCR tests are conducted 72 hours before departure, upon arrival, and every 4 days during quarantine.

- The best bilateral policy is when both countries do not quarantine vaccinated travelers (highest net benefit for both countries)
- The second-best bilateral policy is when Singapore quarantines vaccinated travelers for one day while Thailand does not quarantine vaccinated travelers
- The worst bilateral policy is when both countries quarantine vaccinated travelers for 14 days.

Interpretation: Irrespective of whether Singapore or Thailand unilaterally relax their quarantine policies, both countries stand to gain a high net benefit from doing so for vaccinated travelers.

Scenario 2: Unvaccinated and vaccinated travelers are quarantined for the same length by each country; quarantine length varies between 0-14 days, which can be different between Thailand and Singapore; and PCR tests are conducted 72 hours before departure, upon arrival, and every 4 days during quarantine.

- The best bilateral policy (highest net benefit for both countries) is when both countries do not quarantine travelers.
- The worst bilateral policy for Thailand is when both countries quarantine travelers for 14 days.
- The worst bilateral policy for Singapore is when Singapore quarantines travelers for 8 days while Thailand does not quarantine travelers.

Interpretation: If one country maintains a defined quarantine period for both vaccinated and unvaccinated travelers while the other relaxes its quarantine policy unilaterally:

- Thailand will consistently outperform Singapore at all levels of quarantine days, while Singapore may initially have lower net benefit but will eventually improve.

Clarifications on assumptions used to build the model

It is important to note that the study is still at an early stage and further analysis will be conducted to refine the model.

The delta variant's R0 (reproduction number) has been chosen to measure transmissibility because it is likely to dominate the region. However, it appears that estimating this parameter is difficult at the moment, because current community restrictions (in most jurisdictions) will confound R0 estimates. As a result, the data (at present) may be unable to differentiate between the effects of vaccination and those of other social/community interventions. R0 will also change as per the strain. A question was raised on how the model's results could be altered when considering R0 from different variants.

The COVID-19 situation is constantly changing and while the model will remain the same, updated data can be inputted from countries in the model.

The willingness to travel model is unique but also the hardest to operationalise. There is not enough good data to be able to design this well, at the moment. The possibility of travel and the willingness will depend on risk-appetite, so travel patterns may differ vastly.

Country implementation

As each country has its own set of preferences, the willingness to travel model will need to be adapted to each one. Furthermore, every country has its own set of calculations and parameters, therefore this approach is suggested to be carried out in a country-specific manner.

Suggestion for the model outcome
Apart from the best and worst testing strategies, the model should also present choices that "in between" which considers various indicators. It was also advised that costs, both monetary and in terms of lives lost, should be included in the model results.

Overall feedback
The model currently works on a bilateral basis, but often these solutions require multilateral engagement, and it would be helpful if the model could be built out in that direction. This is a helpful model, even if only indicative, to allow negotiation between countries, bilateral or more.

Also, a question was asked about whether the model could account for immunity from the disease, for instance, Wimbledon was opened to those who had tested negative and used proof of immunity, rather than just vaccination.

Additional questions raised were: (1) how does the length of quarantine change for those who have been infected by the virus and have immunity against the disease? (2) how can the model be better used if a country's capacity to construct such a model is limited, for example, due to a lack of data and human resources? (3) Would it be possible to conduct a multi-country model?

6	**Next Steps**
	- Secretariat to host Working Group meeting next week to finalise and implement country surveys - Secretariat to design a template to support analysis of survey results for member countries

	• Secretariat to develop an outline of the guidance document and share with AG members for comments • Secretariat to refine the impact assessment model further as more data is made available • Secretariat to share the meeting summary