

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

Date: Friday, 30th July 2021

Time: 2.00 – 4.00 pm (Thailand)

Attendees (in alphabetical order)

Working Group (WG) members

1. Dr. Mayfong Mayxay, Lao University of Health Sciences, Laos
2. Dr. Auliya A. Suwantika, Faculty of Pharmacy, Universitas Padjadjaran, Indonesia
3. Assoc. Prof. Asrul A. Shafie, Universiti Sains Malaysia (USM), Malaysia
4. Prof. Gagandeep Kang, Department of Gastrointestinal Sciences, Christian Medical College, 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, National University of Singapore (NUS)
5. Ms. Jing Lou, NUS
6. Mr. Manit Sittimart, HITAP
7. Dr. Parinda Wattanasri, Institute of Preventive Medicine Education, Thailand
8. Mr. Pasit Thongsrinuch, HITAP
9. Mr. Sarin KC, HITAP
10. Ms. Saudamini Dabak, HITAP
11. Ms. Suchanan Kokkrathok, HITAP
12. Assoc. Prof. Wanrudee Isaranuwachai, HITAP & St. Michael's Hospital and Institute of Health Policy, Management and Evaluation, University of Canada
13. Dr. Yot Teerawattananon, HITAP & NUS

Observer

1. Ms. Waraporn Suchaichit, the National Research Council of Thailand (NRCT)

Regrets

1. Dr. Anna M. Guerrero, Department of Health, Philippines
2. Prof. Clarence Tam, NUS
3. Prof. Jeoghoon Ahn, Ewha Womans University, South Korea
4. Ms Jiayun Koh, NUS
5. Dr. Katika Akksilp, HITAP
6. Dr. Michelle Li, Division of Health Policy Evaluation and Technology Assessment, National Health Development Research Center, China
7. Ms. Michiko Hayashi, NUS
8. Assoc. Prof. Natasha, Howard, NUS
9. Assoc. Prof. Ryota Nakamura, Hitotsubashi Institute for Advanced Study, Japan

10. Prof Zhao Kun, Division of Health Policy Evaluation and Technology Assessment in China, National Health Development Research Center.

1	<p>Welcome and Working Group (WG) Member Introductions</p> <p>Distinguished members and all attendees were warmly welcomed to the 3rd WG meeting of the CORESIA project. The event began with a few housekeeping rules, following which all attending WG members briefly provided updates on their country surveys, outlining their current developments and preparation for launching.</p>
2	<p>Objectives of the meeting</p> <p>The objectives of the meeting were: 1.) to provide updates on CORESIA activities and events; 2.) to share preliminary results from the public and stakeholder surveys in Thailand and Singapore; 3.) to present the preliminary results from the impact assessment study (bilateral travel model between Thailand and Singapore); and 4.) to engage in open discussion to determine how the results from the surveys and impact assessment study might be adapted to suit the guidance document.</p>
3	<p>Update on Project Status</p> <p>The CORESIA project update included three highlights:</p> <p><i>Overview of current situations of COVID-19 and travel instrument adoption around the globe</i></p> <p>Several country updates were shared from the media and public domain. For example, in some European countries, such as France and Italy, travel instruments have been adopted domestically as a requirement to access services such as hotels, restaurants, museums and among others. The Africa Union has launched “My COVID Pass” for the region through an initiative called Trusted Travel. In addition to allowing safe cross-border travel, it also aims to address issue of fraudulent document and use the platform to share information or track outbreaks of future diseases. In the UK, they currently allow travelers from the United States (US) and EU, who have been fully inoculated, to enter the country without quarantine requirements. In light of new evidence on the delta variant being highly transmissible even among those fully vaccinated, the US Centers for Disease Control and Prevention (CDC) reversed its policy and now recommends mask wearing in public places, regardless of being fully vaccinated.</p> <p>With regards to CORESIA country members, there have been some developments regarding the COVID-19 situation and implementation of travel instruments. In Malaysia, the number of new positive COVID-19 cases have increased, and more stringent policies are being applied, including not allowing people to go on holiday. The government has announced the use of a digital certificate, namely MyTravelPass or Mysejahtera. In Indonesia, there have been concerns about implementing travel instruments given the low level of vaccination coverage in the country. In Laos, people are required to show their vaccination card (fully received 2 doses) to use public buses and enter public/government venues or market (for traders). However, these are ad-hoc policies for domestic use of the proof of vaccination, which have primarily been used to tackle vaccine hesitancy in the country which has proven to be an issue. There is currently no discussion in expanding the use of these instruments for international travel. Currently, the Laos government focused on speeding up its vaccination programme to cover people in the country. In India, adoption of travel instruments is complicated and has become a topic of political and diplomatic debate. This is because India produces AstraZeneca domestically, branded as Covishield, and it is not being treated or regarded as equivalent to the AstraZeneca vaccine produced in countries such as the Republic of Korea or in Europe. Accordingly, the government is requesting that other countries reciprocate and accept vaccines</p>

	<p>produced in India. However, several states in India are already starting to use or recommend the use of these instruments for domestic use for e.g., cross-state travel.</p> <p><i>Updates on country surveys from WG members</i></p> <p>As of July 30, 2021, the country-level surveys are in various phases. China is not currently conducting the surveys. The Republic of Korea is translating the public survey and will hire a polling company, while Japan plans to conduct the public survey by next month. Indonesia has already launched the surveys and preliminary results of public survey indicated that both paper and electronic based formats of travel instruments may be required. Similarly, in Singapore, the survey has been launched and that the preliminary results would be presented during this meeting. However, in India, more manpower to manage the surveys is required in order to proceed. Then again, an idea of joining forces with National Technical Advisory Group on Immunization (NTAGI) may be considered and decided whether implementing the surveys in parallel is feasible.</p> <p><i>Launch of the CORESIA website</i></p> <p>The CORESIA website (www.vaxcert.info) serves as a repository of information regarding cross-border travel regulations at the national level around the world, with a particular focus on the adoption of vaccination certificates and other comparable travel instruments. The map-based dashboard displays easily digestible information which is supplemented by a table that allows for cross-country comparisons. The website also features latest research, news, and media articles relevant to the topic. In addition, meeting summaries and CORESIA findings such as the survey results and guiding principles (either in a report or manuscript form) will be shared here.</p> <p><i>Public goods developed as part of CORESIA: Events and Publications</i></p> <p>Since the last meeting in April 2021, we have engaged in several events and produced outputs through the CORESIA initiative, as listed below:</p> <ul style="list-style-type: none"> • Publication: <ul style="list-style-type: none"> ○ The Lancet: <u>Research collaboration to inform quarantine policies for health-care workers</u> ○ BMJ : <u>Vaccinating undocumented migrants against Covid-19</u> • Webinars: <ul style="list-style-type: none"> ○ <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> • Representing CORESIA in two working groups: <ul style="list-style-type: none"> ○ Universitas Padjadjaran, Indonesia: ASEAN ITTP-COVID19 and National ○ University of Singapore: ASEAN Travel Policy dialogue. ○ Vaccine security agenda of ASEAN Health Cluster 3 through Thai government. • Blogs and policy briefs <ul style="list-style-type: none"> ○ <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	<p>The impact assessment study: bilateral travel economic analysis between Thailand and Singapore by Dr. Lou Jing, NUS</p>

The trade-off between protecting public health from COVID-19 and the economy is quite apparent, and this is largely driven by the type of testing and quarantine policies put in place by countries. The objective of this study is to find testing and quarantine policies that would be most beneficial (in net monetary benefit terms) to both Thailand and Singapore. This study utilises several models as briefly described below:

1. Model 1: Constructing a willingness-to-travel model by collecting data on number of travelers from Thailand to Singapore and vice versa
2. Model 2: Constructing a transmission model by collecting the number of Thai or Singaporean travelers who are diagnosed at each stage of travel and the number of secondary cases in the community caused by infectious travellers in Thailand or Singapore
3. Conducting a feasibility check using results from Model 1 and 2, to drop all the bilateral testing and quarantine policies that result in higher number of imported/secondary cases than the maximum tolerance level for both countries (as they would overburden the health system).
4. Model 3: Constructing an economic model to estimate the net monetary benefits for each country, for all the policies that result in lower secondary cases than the maximum tolerable cases. This model accounts for (i) travellers-related economic benefits and costs, (ii) COVID-19 cases-related medical costs, (iii) COVID-19 cases related non-medical costs, and (iv) COVID-19 cases related health loss.
5. Once the net monetary benefit all feasible bilateral testing and quarantine policies for both Thailand and Singapore are determined, they will be compared to identify the most beneficial for individual and both countries.

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.

	<p>Interpretation: If one country maintains a defined quarantine period for both vaccinated and unvaccinated travelers while the other relaxes its quarantine policy unilaterally:</p> <ul style="list-style-type: none"> • Thailand will consistently outperform Singapore at all levels of quarantine days, while Singapore may initially have lower net benefit but will eventually improve. <p>Reflection from Advisory Group (AG) members</p> <p>An overview of the suggestions provided by the AG members was shared to the WG members. Key points include: (i) the assessment should consider variants of concerns for e.g., the delta variant; (ii) the model should, if possible, be able to provide an idea of best, moderate, and worst scenarios to policymakers; (iii) the study should consider other outcomes such as lives lost, in addition to net monetary benefit; and (iv) a multi-lateral model should also be considered in addition to a bi-lateral one.</p> <p>The members also raised some concerns relating to the study. These included the applicability of the model in different countries due to unique preferences of polices; ability to get the required data in other countries; inability of the model to account for immunity developed from natural infection; and difficulty in estimating the true R0 (reproduction number) and its potential impact on the model's results. In addition, the COVID-19 pandemic situation is constantly evolving, hence, the model should be more dynamic and able to incorporate changes such as the new variants.</p> <p>Discussion and reflection from WG members during the meeting</p> <p>WG members suggested the model should consider all relevant parameters such as the vaccine coverage, infection rate, duration of protection, and transmissibility of different variants, risk of breakthrough infections, etc. They highlighted the importance of clarifying the population used in the model, for example, whether the vaccinated population refers only to those who have been fully vaccinated or also those who have been partially vaccinated. This is to avoid overestimation of risk in a partially vaccinated population wherein they are regarded as being non-vaccinated.</p> <p>Member reflected on some challenges and limitations pertaining to getting the data required and conducting this study. Accessing data for certain parameters may prove difficult, for e.g., Ro for the delta variant, or breakthrough cases, especially if platforms for surveillance have not been set up. If the duration (timeframe) of the model is long, up-to-date data sets may be required as the parameters (such as viral transmissibility, vaccine efficacy and protection against new variants) may change over time. An example from Israel was shared where the duration of protection from vaccines has been shown to reduce over time, and the proposal for a booster dose is being considered. However, it is still unclear whether breakthrough infections will have the same transmissibility as regular infections. Furthermore, it was discussed that transmissibility among general travelers and business travelers could differ depending on the activities they undertake, however, the model same transmissibility for both groups. It was further acknowledged that different countries will have different maximum tolerance thresholds (for positive cases), and that data should be from national government.</p> <p>WG members were also invited to collaborate on conducting the impact assessment study for their countries. WG members from Malaysia and Indonesia expressed their interest in learning and developing similar models.</p>
5	<p>Preliminary results from CORESIA country surveys</p>

Two types of surveys have been conducted in Thailand and Singapore: public and organisations or stakeholders. During the meeting, preliminary results (as the surveys are still ongoing) from both Thai and Singaporean surveys were presented to WG members and discussed. Travel instruments in the survey refer to vaccination certificates/passports or immunity certificates/passport.

A) Results from Thai public and organisational surveys

A total of 1,100 respondents had participated in the public survey (as of 21 July 2021). Respondent's age ranged from 25 to 65 years old, representing various occupational and education sector, majority of whom were from government and private employees. For the stakeholder survey, we had 87 respondents from different organisations, including health sector and non-health sector from both public and private.

It was clear that majority of Thai respondents (both public and organisations) wanted the travel instruments to be adopted in the country. Both vaccination and immunity-based instruments should be considered, and that both electronic and paper forms of instruments should be accessible. Importantly, at least 60% of people should be vaccinated prior to the instrument adoption. Interestingly, majority of respondents from non-health organisations expect a vaccine coverage of over 80-100% of the population.

Majority of respondents preferred a for shorter quarantine length with more testing compared to longer quarantine and less or no testing. Most challenging issue when adopting travel instruments were consistent between Thai public and stakeholders/organisations. These challenges include public health safety (vaccine efficacy and new variants), social justice (vaccines and digital technologies accessibility), and data privacy. Respondents reluctant to share private data and with lower level of trust on government and private sector to protect their data privacy were less in favor of adopting such instruments. It was interesting to see the respondents put higher level of trust in the private sectors compared to the government when it came to protecting their data privacy.

The stakeholder survey results showed that the sectors that have been most affected, financially, from the pandemic were thought to be more likely to benefit from these travel instruments. Those sectors were tourism, restaurants/department stores, and logistics/transport.

Key factors that may be influencing public acceptance of travel instruments include vaccination status, public trust in protecting their data privacy. The status of instrument adopt was largely consistent regardless of travel plans in the near future. There was also general consensus to have a risk-based policy on testing and quarantine measures, depending on the countries of origins of travellers and their risk profile.

Reflection on Thai survey results from Advisory Group (AG)

Some key reflections from the AG meeting were also shared during the meeting. These include recommendations on having a clearer definition of a "risk-based" policy as risk tolerance or capacity of each country can differ and can be dynamic. The application of these instruments beyond holidaymakers was highlighted, in particular, migrant workers. Other issues of importance were raised such as the length of quarantine and location (home/institution), and the potential need for boosters for these instruments to remain effective. Members suggested exploring the reasons for the low level of trust in the government to protect data privacy and communicating tangible solutions.

B) Results from Singapore public and stakeholder survey

As of 22 July 2021, there were a total of 116 respondents from the public, mostly, in the age range of 41-65 years (48%) and 25-40 years (39%). Most respondents were from the educational and public health sectors. The survey is being expanded to cover other sectors as well. For the stakeholder survey,

representatives from 15 organisations had responded. Overall results show that the majority of respondents wanted travel instruments to be adopted in Singapore, and that vaccine coverage should be at least 60%. Similar to Thailand, respondents from Singapore preferred a shorter quarantine with more testing compared to longer quarantine with fewer or no tests. Most concerning challenges perceived by the public was public health safety and followed by ethics and social justice. For stakeholders, public health safety followed by governance (bilateral and multi-lateral agreements) and ethics were considered as a challenge to effective adoption of such instruments.

Most respondents were comfortable in sharing their health and personal data with others and therefore, did not seem to impact their preference to adopt travel instruments. Unlike Thailand, people in Singapore had a higher level of trust in their government compared to private sector. Interestingly, individuals with no travel plans were more in favor of instrument adoption compared to those without.

From the stakeholder survey results, business areas most affected, financially, by the pandemic and those most likely to benefit from travel instruments include tourism, restaurants, nightclubs, logistic and transportation. Like Thailand, testing and quarantine policies were thought to be risk-based for incoming travelers to Singapore, depending on their countries of origin and the risk they carry.

Furthermore, respondents highlighted the need to include key information in the instrument such as the type/brand of vaccines received as different vaccines have different levels of protection against different variants. Participants also suggested using these instruments to access services could be a means of encouraging more people to get vaccinated and tackle vaccine hesitancy.

Key discussion points from Singapore stakeholder webinar

Members from Singapore also shared key discussion from the stakeholder meeting which was held on 23rd July 2021. The stakeholder meeting included group discussions on three main themes: (i) vaccination versus immunity-based certificates (ii) what are the foreseeable concerns and challenges? (iii) Quarantine and testing.

(i) Vaccination versus immunity-based certificate

Reciprocal policy was identified as one of the key enablers or barriers for an effective use of travel instrument and that countries should have a certain level of mutual understanding and coherent policies. Consensus on the duration of validity for these instruments was thought to be important and ought to be linked to duration of protection given by the vaccines.

(ii) Foreseeable concerns and challenges

Under this theme, many of the concerns raised and identified were similar those identified in the survey results (see previous section). These include unequal access to vaccines (especially children), maintaining public health safety from imported cases, and uneven access to digital technologies.

(iii) Quarantine and testing

The discussion on this theme also reflected the results found in the surveys, the need for a risk-based policy approach for those travelling with such instruments. It was also suggested that there should be continued surveillance of the travellers to monitor risk, both in Singapore and other countries where bi- or multi-lateral relationships are established.

There was a consensus regarding the need of travel instruments in Singapore. However, it was speculated that it may take about 4-5 years for the use of such instruments to be fully operationalised. This is because unless larger proportions of the population in other countries, get fully vaccinated, free

	<p>travel between countries will not be feasible. Many questions regarding implementation of instruments remain as there is a lot of uncertainty and concerns over privacy, balancing re-opening and public health, and efficacy of measures among others. Therefore, countries should try to find the right balance and understand that there will be different levels of comfort on how and to what extent countries may open their borders.</p>
6	<p>Discussion</p> <p>The survey results between Thailand and Singapore largely mirrored each other, although, some differences were observed, for e.g., the trust level in government. These may reflect the contextual differences in two. It was emphasised that different countries are currently using different types of vaccines which may produce contrasting results. Nevertheless, having a common template to compare results from different countries was considered to be useful, however, the final results may need to be adjusted according to policymakers' needs in each country.</p>
7	<p>Next Steps</p> <ul style="list-style-type: none"> • Working group (WG) members to conduct their country surveys and share the preliminary results (including a result from individual countries) • Secretariat to share an outline of the guidance document for comments from WG members, and to produce a first draft by the end of August • Secretariat (NUS research team) to further refine the impact assessment model, respectively to availability of more up to date data being made • Secretariat to follow up with WG members regarding potential collaboration on the impact assessment studies • Secretariat to share the meeting summary