

The Effects of New COVID-19 Variants on Thai and American Citizens’ Diverse Opinions About Vaccination and Other Related Topics

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Abstract :

The outbreak of COVID-19 is becoming more difficult to control, especially after the advent of new variants. Though vaccines have been produced recently to prevent and stop the spread of COVID-19, there are many debates comparing their benefits and drawbacks. Some groups of people prefer to get vaccinated while some do not. The objectives of this research are to compare the effects of the new COVID-19 variants on diverse vaccine preferences and compare the effects of various factors on concerns and the degrees to which these people value vaccines of 561 Thai and 271 American citizens so as to learn the rationales behind their preferences. Also, this research tried further to draw correlations of areas of living and frequency of receiving information, the severity of the pandemic, and concern levels. Furthermore, this research tries to investigate what were the main factors rendering people anxious in the midst of the COVID-19 pandemic. Information was collected via Google Forms survey from 30th May to 24th June. The results revealed that most Thai and American citizens preferred mRNA vaccines the most and the proportion of people valuing mRNA vaccines grew a lot subsequent to the outbreak of new variants. Several factors like age, perceived pandemic severity, and frequency of information reception demonstrated positive correlations to both concern levels and the extent to which people valued vaccines with insignificant fluctuations. However, the number of variants known and whether having elderly people in families or not did not play an important role on both indicators. Concluded from the map charts, people living in densely populated and tourism-intensive areas believed that the situation in their neighborhood was extremely severe, and they were more concerned with it and active in keeping in touch with updated news. Both Americans and Thais are concerned about the situation because they did not want their loved ones to be at risk. Economic wellbeing and severe symptoms also played an important role. A suggestion for further research is to gain more respondents from elderly groups and avoid sampling error by using the different criteria for the information processing.

Keywords — COVID-19, importance of vaccines, COVID-19 concerns, COVID-19 vaccines, vaccines, vaccination.

I. INTRODUCTION

Vaccines are important to stop the spread of the COVID-19 virus that is severe, but some people do not realize their importance and prefer not to get vaccinated.[1] This group is prone to be infected and they might transmit the virus to others. There are frequent infection cases and new deaths arising every day, indicating that this pandemic is a huge uncontrollable problem. Despite efforts done by medical personnels, the number of new cases still escalates every day.[2] Meanwhile, some doctors and nurses risk contracting COVID-19 from patients. Some are required to stop performing their duties, rendering the number of medical teams decreasing.[3] New variants like delta strain from India worsened the COVID-19 situation.[4] Having recognized this issue and realized the utmost importance of vaccines, this research started focusing on people's diverse vaccine preferences. Additionally, people's opinions toward their necessity were also studied alongside with the effects of various factors on these opinions. Alongside with this, the correlation between various factors and the levels of concern was also deducted. Map charts were also utilized to draw the correlation between areas of living and concern levels, perceived severity, and frequency of information reception.

The novelty of this research stems from the variety of subjects as both Thai and American respondents are included. Thus, a broad comparison on distinct opinions and preferences of people in different countries can be done. This research can be utilized by Thai and American organizations to study the vaccine preferences of people and distribute vaccines accordingly. Also,

they could learn the factors that affected these people's vaccine preferences.

II. OBJECTIVE AND METHODS

The survey gathered data by means of using questionnaires. Questionnaires both written in Thai and English consist of 5 sections, containing a total of 21 questions, including multiple-choice questions (MCQs), Likert scale, and open questions in which the respondents were allowed to fill their answer of choice. Some multiple-choice questions allowed respondents to suggest other answers rather than the alternatives provided. Such answers would subsequently be analyzed manually. Google Forms platform was adopted. Each subject was required to be logged in using his or her email account. To avoid double-counting, a single account could answer the questionnaire only once. The forms were thoroughly distributed via LINE groups, LINE squares, Facebook groups, and Instagram stories in order to obtain data from diverse groups of people. Detailed instructions were provided in each section of the questionnaire to avoid misunderstandings.

A. Study design

Questionnaires were first distributed both in Thailand and the USA approximately at 9.00 A.M. (GMT+7) May 30th. Both forms ceased to accept responses at 9.00 A.M. (GMT+7) June 24th. For respondents' comfort, respondents received questionnaires written in their native languages. Questions in the form can be divided into 5 sections as follows:

- 1) Participants were asked if they consent to allow researchers to analyze their anonymous responses only for this research.
- 2) Personal information which may involve participants' vaccine decisions: age range

(MCQs), gender (MCQs), state of living, occupation (MCQs + allow ‘others’), illnesses and allergies (Yes/No), elderly members in the family (Yes/No).

- 3) Opinions toward the COVID-19 vaccines before the participants were informed of new SARS-CoV-2 (COVID-19) variants: vaccine necessity (Likert scale), the preferred vaccine (MCQs + allow ‘others’), reasons of such preference (open).
- 4) Data regarding subjects’ COVID-19 awareness: prevalence of COVID-19 in participants’ surrounding area (Likert scale), frequency of receiving information (Likert scale), information source types (MCQs + allow others), specific information sources (open+optional), variants learned (MCQs + allow others), levels of concern (Likert scale), causes of concerns (MCQs + allow others).
- 5) Opinions toward the COVID-19 vaccines after the participants were informed of new SARS-CoV-2 (COVID-19) variants: vaccine necessity (Likert scale), the preferred vaccine (MCQs + allow ‘others’), reasons for such preferences (open).

This survey study was intended to investigate the consequences of new SARS-CoV-2 (COVID-19) variants on Thai subjects’ opinions toward vaccination, as compared with their American counterparts.

B. Statistical analysis

In this study, a survey with a sample size of 561 subjects from Thailand and 300 subjects from the USA was conducted. Google Forms platform was used to analyze demographic details in the forms of numbers and percentages, along with opinions and information sources in the form of frequency charts.

The collected information regarding

vaccine opinions and demographic information (quantitative) were represented by Microsoft Power BI in terms of charts and analyzed manually. Also, the COVID-19 awareness data, such as frequency of information perception, information sources, number of variants known, and levels of concerns (qualitative) was processed by Microsoft Power BI and drawn correlations with the rest of the information manually.

The correlation between demographic details and changes in vaccine opinions after subjects had learned the outbreak of new SARS-CoV-2 variants was deduced. So did the correlation between subjects’ awareness of COVID-19 and the directional changes of vaccine opinions.

C. Ethical consideration

The following survey study was given informed consent from subjects to analyze their anonymous responses and publish the research. No participant was forced against their will.

III. RESULTS

A. Effects of various factors on concern levels in Thailand and the US

The bar graphs in this section illustrate the effects of various factors on concern levels of Thai and American respondents calculated on average. In this research, the lesser figure in the Likert scale represents the lesser extent and vice versa.

Later in this section, this research compares the different features of each pair of bar graphs investigating the effects of the same factor in Thailand and in the USA. Thailand’s graphs are demonstrated on the left, whereas the USA’s are on the right.

3.1.1. Age

Figure 3.1.1.1. Average concern levels by Age in Thailand

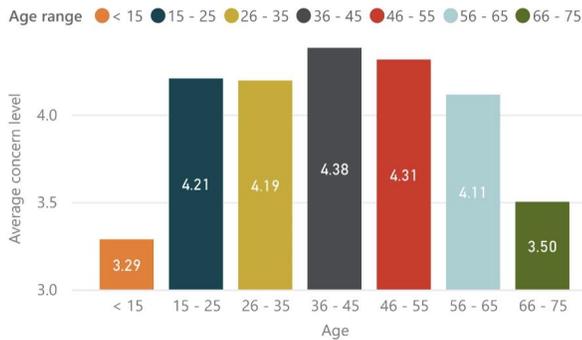
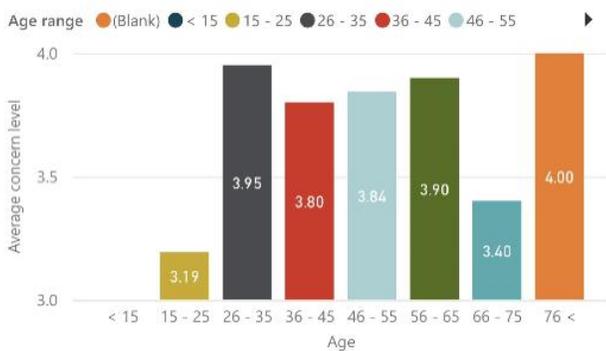


Figure 3.1.1.2. Average concern levels by Age in the US



It can be concluded from the first graph (figure 3.1.1.1.) depicting the correlation between age and concern degrees in Thailand that Thai people aged between 36 and 45 were those who have the most concern of the COVID-19 situation, ranking top of the list at the figure of 4.38. Thai people who were aged between 16 and 65 seemed to be perturbed by the virus as equally as one another because each group’s average concern level did not differ from one another significantly, not ranging too high above level 4. On the contrary, opposite information was spotted in Thai children aged less than 15 whose average concern level was just 3.29. Most surprisingly, Thai elderlies’ average concern level was just a little above the children’s average level (3.29) at exactly 3.50 despite their high predisposition to the development of extremely severe cardiopulmonary

symptoms soon after contracting the disease. [5]

Shifting to the figure 3.1.1.2. presenting the correlation between age and concern degrees in the USA, it is perceptible that those who were perturbed most about the COVID-19 situation were elderly people aged more than 76, ranking top of the list at the figure of 4.00. American people in groups aged 26-65 seemed to be equally concerned because each group’s average concern level did not report a stark difference from one another, at approximately level 3.90. On the other hand, American youths aged 15-25 worried least about the pandemic at only an average level of 3.19. However, American elderlies aged 66-75 are bothered much less than expected. Their average concern level was just a little above the youth’s average level (3.19) at exactly 3.40 despite their high risk of development of further symptoms after contracting the disease.

Comparing both graphs, American respondents seemed to be less concerned than their Thai counterparts. The highest distinction was in the youths aged 15-25 as the figure of this group in Thailand was 1.02 greater than in the USA.

3.1.2. Having elderlies in the family

Figure 3.1.2.1. Average concern levels by living with an elderly in Thailand

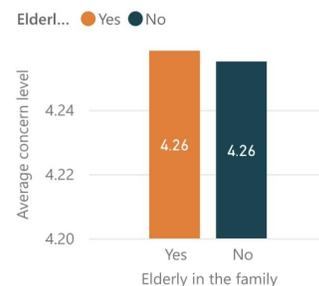
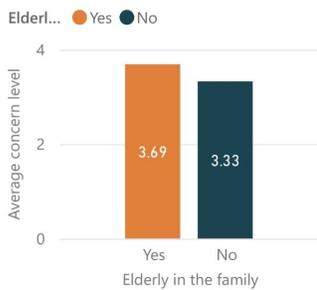


Figure 3.1.2.2. Average concern levels by living with an elderly in the US



According to figure 3.1.2.1. demonstrating the differences in concern levels between Thai respondents in the group living and not living together with the old, the concern levels of both were almost exactly the same at 4.26. Therefore, it could be deduced that Thai survey respondents' concern levels, on average, were not significantly attributed to whether they had elderlies in their family or not.

Turning to the statistics from American respondents, there existed a significant difference in average concern levels between the groups living and not living together with elderlies. Respondents from the former group were 0.36 degrees more concerned than the latter group's members on average.

Comparing both graphs, having elderlies in respondents' families caused Americans to increase their concern level more significantly than Thais, though the average concern levels in Thailand far exceeded those in the USA, regardless of whether respondents lived with the old.

3.1.3. Perceived severity of COVID-19 situation in living areas

Figure 3.1.3.1. Average concern levels by Severity of COVID-19 situation in the community in Thailand

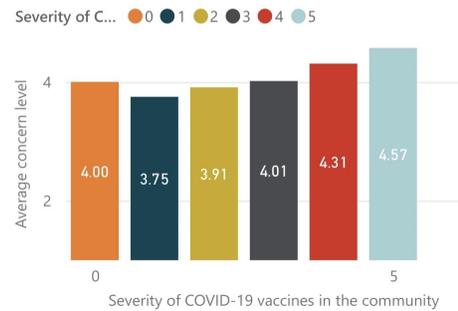


Figure 3.1.3.2. Average concern levels by Severity of COVID-19 situation in the community in the US

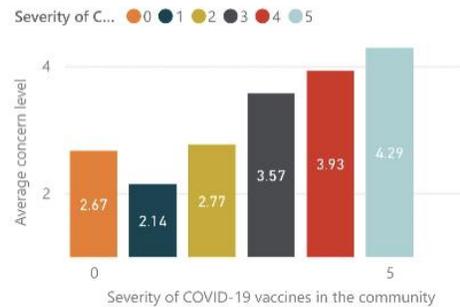


Figure 3.1.3.1. implies the effect of the severity of the COVID-19 situation (based on respondents' opinions) and concern levels in Thailand. Overall, Thai respondents' concern levels seemed to be proportional to opinion-based severity degrees, starting from the average level 3.75 from the group of people considering their vicinity's pandemic situation was serious at level 1 to the figure of 4.57 from the group considering their neighbourhood COVID-19 situation was dangerous at level 5. The only exception was found in the group of Thai people saying their neighbourhood's COVID-19 situation was not perilous at all (level 0), back in the time the research was conducted. Although people in this group considered their environments safe, they, somehow, were still perturbed by the situation at an average level of 4.00.

Turning to the data collected from Americans, there existed a positive correlation

between the opinion-based severity of the pandemic in respondents’ environments and their concerned levels. This trend was obviously observed in the group rating the COVID-19 severity in their vicinity from 1 to 5. While those rating their environment extremely dangerous summed up to make an average figure of a whopping 4.29, people rating the pandemic’s severity for only level 1 compiled to make an average concern level of only 2.14.

These significant deviations from the trend are debunked in the Discussion section 4.1.3. Ignoring the minor exception, the overall trends of concern levels with regard to the opinion-based severity both in Thailand and the USA were positively correlated. One stark difference was that Thai people were, on average, far more concerned than their American counterparts at every level of opinion-based COVID-19 severity in their vicinity.

3.1.4. Frequency of COVID-19 information intake

Figure 3.1.4.1. Average concern levels by Frequency of information intake in Thailand

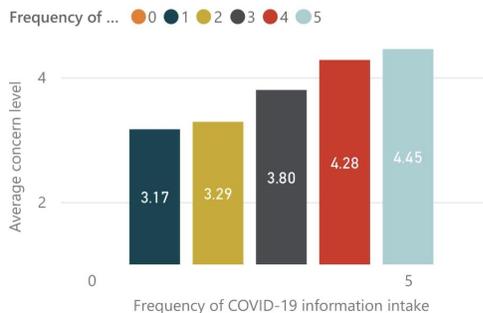
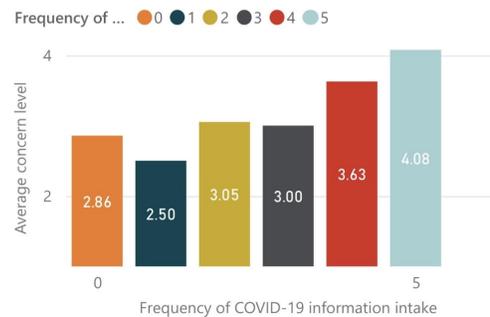


Figure 3.1.4.2. Average concern levels by Frequency of information intake in the US



Overall, it is discernible from the left graph reporting how Thai respondents’ concern levels correlate to their frequency of COVID-19 news reception that their concerns were positively correlated to the frequency of information intake. Those receiving information most frequently were those who were most anxious at the level of 4.45. In contrast, Thai people hardly taking in any updated news about the pandemic situation had the figure of only 3.17. The remaining groups’ average figures lay orderly between these two extreme margins.

Turning to the survey data from the USA, there also existed a rather positive correlation between Americans’ news reception and concern levels. The group of Thais receiving only little updated information about the pandemic situation (level 1) had an average figure of only 2.50, whereas those well-informed of the COVID-19 situation were those who were most anxious at the level of 4.08. The remaining groups’ average figures lay orderly between these two extreme margins. However, there was a significant exception to this trend, those who refused to learn new COVID-19 information, surprisingly hit an average figure of 2.86, which was more than the figure of 2.50 of those listening to the news a little more than them.

Comparing Thailand’s statistics with America’s, the aforementioned correlation in Thailand was more obvious than in America.

Interestingly, every individual in Thailand receives at least a little information regarding COVID-19. Also, Thais’ concern levels far exceeded Americans’ concern levels at every degree of information reception.

Note that this was only a correlation. No certain causation could be implied since it could be either that news causes anxiety or that anxiety triggers people’s interest in news.

3.1.5. Number of COVID-19 variants known

Figure 3.1.5.1. Average concern levels by Number of variants known in Thailand

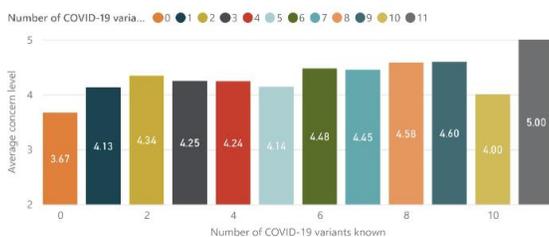
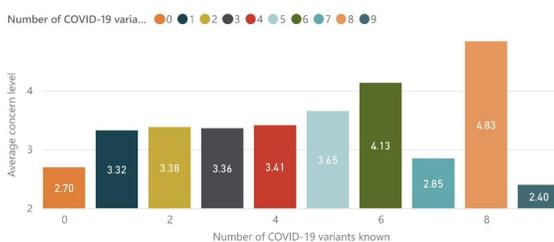


Figure 3.1.5.2. Average concern levels by Number of variants known in the US



The graph on figure 3.1.5.1. investigates the correlation between the number of COVID-19 variants known by Thai respondents and their average concern levels. Though there was a rather high degree of fluctuation, Thai respondents’ concern levels were likely to escalate when they knew more COVID-19 variants. Interestingly, all Thai respondents knowing all of the 11 most prevalent variants at the time of the study were very concerned about the pandemic as their average figure was 5.00, indicating that everyone in the group answered with a score of 5. On the

other extreme, people not recognizing any variants at all possessed an average figure of only 3.67. The remaining groups’ statistics lay within the spectrum with some fluctuations. Such fluctuations indicate that sometimes knowing more variants did not implicate an increase of concern.

According to the figure 3.1.5.2. investigating the effect of the same factor on Americans’ concern levels, American respondents’ concern levels were likely to escalate when they knew more COVID-19 variants until they knew 6 variants. After that, the trend fluctuates drastically. People knowing 6, 7, 8, and 9 variants reported to have concern levels of 4.13, 2.85, 4.83, and 2.40, respectively.

Overall, in both countries, there existed an ambiguous trend of growing concerns among those who knew more COVID-19 variants. Also, as indicated in the previous comparisons, Thai respondents were usually more concerned than their American counterparts, but there was one exception: those knowing 8 COVID-19 variants in America were more concerned about the situation than their Thai counterparts.

3.1.6. Personal illnesses

Figure 3.1.6.1. Average concern levels by the presence of illnesses in Thailand

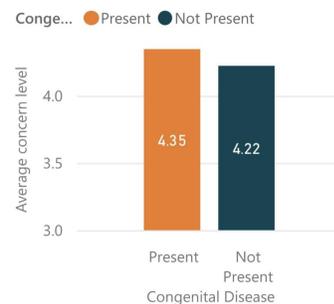


Figure 3.1.6.2. Average concern levels by the presence of illnesses in the US

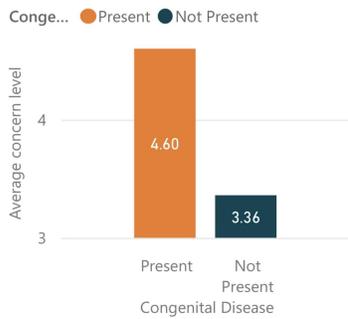


Figure 3.1.6.1. shows the correlation between the presence of illnesses and concerns in Thailand. It is noticeable that Thai people possessing some regular illnesses were slightly more concerned about the situation than those who did not have any. Their difference in the concern levels was only 0.13.

Turning to figure 3.1.6.2, statistics from America represented a huge gap with a degree of 1.24 between the two groups' concern levels.

Hence, we can conclude that the presence of illnesses affects Americans more than Thais significantly.

B. Effects of various factors on perceived vaccines necessity levels and comparative analyses prior and subsequent to the advent new COVID-19 variants

Graphs in this section demonstrate the effects of several factors on the opinion-based necessity of vaccines both in the period prior and subsequent to the new viral strains outbreak. In this research, the less figure in the Likert scale represents the less extent and vice versa.

Later in this section, this research compares the different features of each pair of bar graphs investigating the effects of the same factor in Thailand and the USA. Thailand's graphs are demonstrated on the left, whereas the USA's are on the right.

3.2.1. Age

Figure 3.2.1.1. Necessity levels of vaccine by Age in Thailand

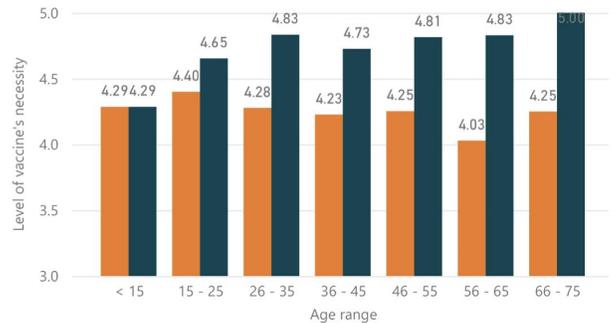


Figure 3.2.1.2. Necessity levels of vaccine by Age in the US

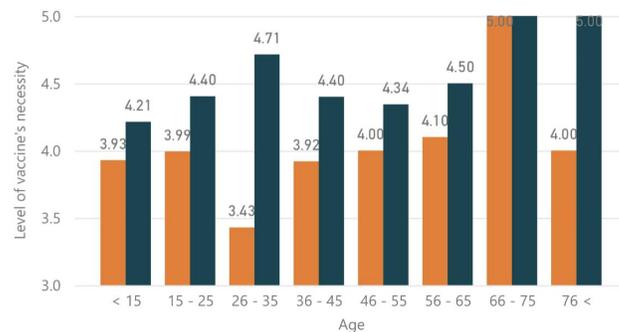


Figure 3.2.1.1. depicts the impact of age on how much Thai respondents considered vaccines essential. It can be concluded that after the new variants break out, the older an individual is, the more they value vaccines.

In advance of the aggravation of the pandemic, such a trend was ambiguously observed because there was a great degree of fluctuation. That is to say, younger Thai people even preferred to have vaccines more than their old counterparts. For example, Thai respondents aged 15-25 valued vaccines at an average level of 4.40, which was a little greater than the figure 4.03 and 4.25 of Thai elderlies aged 56-65 and 66-75, respectively.

However, the trend became more apparent following the outbreak of new COVID-19 variants in 2020. A positive correlation was spotted almost throughout the graph. The only exception was that

Thai people aged 26-35 valued vaccines just a little more than Thai people aged 36-45 and 46-55. Most interestingly, Thai respondents aged 66-75 collectively hit a figure of 5.0 on average, representing that they all highly recognized the necessity of vaccines.

Illustrated in figure 3.2.1.2. is the effects of age on the opinion-based vaccine necessity of Americans. Overall, there was a positive correlation of age and vaccine necessity though there was a high degree of fluctuation.

Focusing on the figures prior to the outbreak of new COVID-19 variants, there were two significant exceptions to the aforementioned correlation. One was that people aged 26-35 deemed vaccines necessary at only level 3.43 on average which was less than any other group. Another was that elderlies aged above 76, on average, valued vaccines at level 4.00, which was less than the figure of 5.00 from people aged 66-75. Interestingly, there existed a high demand for vaccines in people aged 66-75, since they all came to a consensus that vaccines are of utmost necessity.

Turning to the figures after new COVID-19 variants broke out in 2020, the aforementioned correlation was more obvious. The only exception was that people aged 36-65 valued vaccines significantly less than the young adults (26-35 years old) but the difference was less significant than the exception in the previous period.

One interesting fact was that both in America and Thailand, people of all groups averagely valued vaccines after the COVID-19 outbreak no less than the degree before the outbreak. Also, in most cases, Thai people valued vaccines more than Americans do.

3.2.2. Having elderlies in family

Figure 3.2.2.1. Necessity levels of vaccine by living with an elderly in Thailand

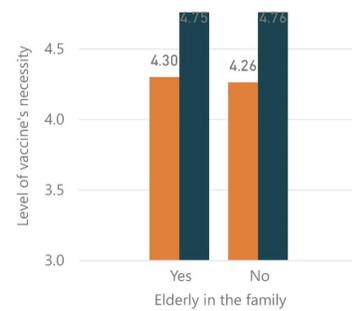
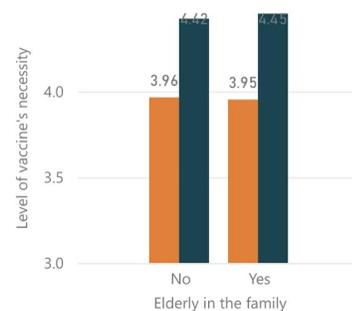


Figure 3.2.2.2. Necessity levels of vaccine by living with an elderly in the US



These two graphs investigate the extent to which living together with the old affected opinion-based vaccine's importance both in Thailand (figure 3.2.2.1) and the USA (figure 3.2.2.).

Surprisingly, living with elderlies did not bring any significant change to how much Thai people's value vaccines. There were only slight differences between the figures of the group living and not living with elderlies. Such minuscule differences were only 0.04 and 0.01 before and after the outbreak, respectively. This complied with the result provided in graph 1.4. However, the stark contrast between the necessity prior and subsequent to the outbreak remained at a noticeably high level above 0.35.

A similar trend was found in the USA. It was observed that whether Americans live with their old relatives or not did not play an important role in the extent to which they valued vaccines.

There were only small differences between the figures of the group living and not living with elderlies. Such minuscule differences were only 0.01 and 0.03 before and after the outbreak, respectively. However, the stark contrast between the necessity prior and subsequent to the outbreak remained at a noticeably high level above 0.35.

Comparing both graphs, the main features of both are almost perfectly identical except the figure on each bar. As mentioned in the previous graphs, Thai people valued vaccines more than Americans.

3.2.3. Frequency of COVID-19 information intake

Figure 3.2.3.1. Necessity levels of vaccine by Frequency of information intake in Thailand

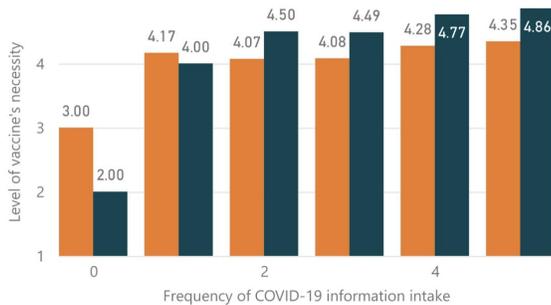
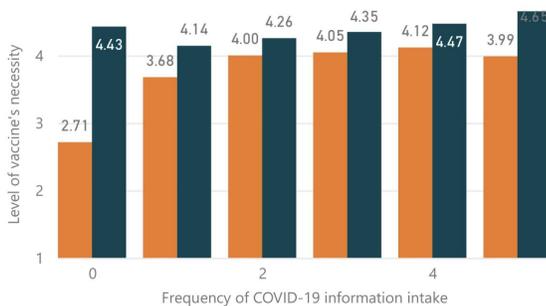


Figure 3.2.3.2. Necessity levels of vaccine by Frequency of information intake in the US



Demonstrated in figure 3.2.3.1. is a correlation between the frequency of information reception and opinion-based vaccine importance reported from Thai respondents.

Overall, the levels of necessity seemed to

be positively correlated to the frequency of information intake both before and after the elevation of the situation caused by the outbreak of new COVID-19 variants with only a few exceptions.

Prior to the outbreak of new variants, receiving information most frequently were those who valued the vaccines most at a level of 4.35, as opposed to the figure 3.00 from those considered most inactive. The remaining groups' statistics lay orderly between these two extreme values, yet a little degree of fluctuation could be recognized.

Subsequent to the outbreak, the trend became more conspicuous. Therefore, it could be concluded that more COVID-19 news taken coexisted with the increased opinion-based necessity of vaccines.

One interesting remark was that not all Thai people valued vaccines more after the outbreak of the new COVID-19 variants. Surprisingly, Thai people in the group hardly receiving information (level 0-1), on average, valued vaccines less after the new variants are reported. Later this is discussed in section 4.2.3

Turning to statistics from America on the right, it is discernible that the frequency of news reception correlated to vaccine necessity both before and after the elevation of the situation caused by the outbreak of new COVID-19 variants with only one exception: the significantly high average figure of 4.43 the group not receiving any information after the pandemic.

Subsequent to the outbreak, all groups of people averagely valued vaccines more. Most surprisingly, the highest increase was in the group not receiving updated information. Later this is debunked in section 4.2.3

After ruling out that questionable piece of information, it can now be concluded that more COVID-19 news taken coexisted with the increased opinion-based necessity of vaccines. Also, Americans valued vaccines more after the outbreak of new COVID-19 variants than in the

previous period.

Comparing the statistics from both countries, we can conclude that there was a strong positive correlation between the frequency of news reception and the opinion-based necessity both in Thailand and the USA. Also, most Thais value vaccines more than Americans do.

3.2.4. Number of COVID-19 variants known

Figure 3.2.4.1. Necessity levels of vaccine by Number of variants known in Thailand

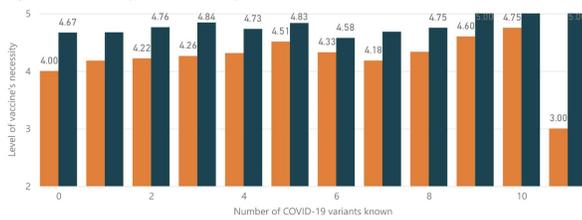
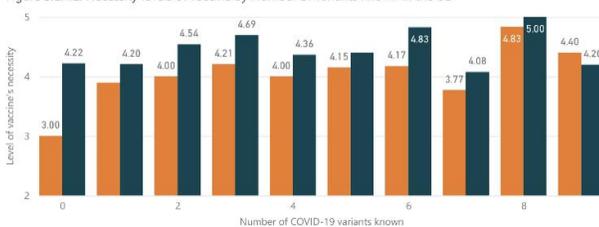


Figure 3.2.4.2. Necessity levels of vaccine by Number of variants known in the US



Illustrated in two bar graphs above are the correlations in both Thailand (figure 3.2.4.1.) and the USA (figure 3.2.4.2.) between the number of new variants known and the degree of vaccine necessity valued by respondents.

From figure 3.2.4.1, there was a positive correlation between the number of variants known and the extent to which each group of people valued the vaccine before the pandemic got worse in Thailand. In other words, the greater number of variants known coexisted with higher vaccine importance. That being said, the trend was ambiguous as the groups knowing 6, 7, and 11 variants reported the figure of 4.33, 4.18, and 3.00, respectively. Unexpectedly, such figures were lower than the figure of the group knowing 5 variants.

A similar trend followed after the outbreak of new variants, but the exception of a positive trend was no longer observed in the group knowing 11 variants. Instead, the only exception was that respondents informed of 6 to 8 variants valued vaccines less than those who learned 5 variants.

According to figure 3.2.4.2, a positive correlation between the number of variants known and the extent to which each group of people valued the vaccine before the pandemic gets worse also exists in the USA. In other words, the greater number of variants known coexisted with higher vaccine importance. Nevertheless, the trend was vague as the groups knowing 4,5,6, and 7 variants demonstrated the figure of 4.00, 4.15, 4.17 and 3.77, respectively. Unexpectedly, such figures were lower than the figure of the group knowing 3 variants. Also, the figure of those knowing 9 variants (4.40) was a little less than those knowing 8 variants (4.83).

A similar trend followed after the outbreak of new variants, but the exception of a positive trend was no longer observed in the group knowing 6 variants. However, exceptions were still reported that respondents informed of 4,5, and 7 variants valued vaccines less than those who learned 3 variants and that respondents knowing 9 variants valued vaccines less than those who learned 8 variants.

Despite the ambiguity described above, there was an evident trend indicating the significant increase of vaccine necessity subsequent to the outbreak of new strains of viruses both in Thailand and America. For example, Thai respondents in the group informed of 4 COVID-19 variants valued vaccines at the degree of 4.73, which was 0.42 more than its old average degree. However, there was one exception in the group of Americans knowing 9 variants, who tended to value vaccines less after the new strains break out.

3.2.5. Personal illnesses

Figure 3.2.5.1. Necessity levels of vaccine by the presence of illnesses in Thailand

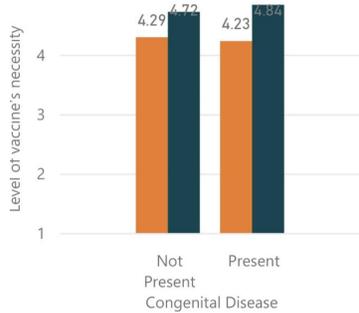
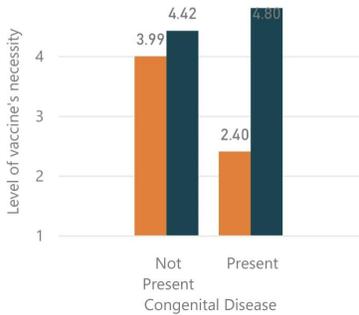


Figure 3.2.5.2. Necessity levels of vaccine by the presence of illnesses in the US



Both graphs above process the data regarding Thai and American respondents’ personal illnesses and allergies to determine whether these are the factors contributing to the opinion-based vaccine necessity.

The data from the survey in Thailand implies slight differences in the figure between the group having and not having the presence of illnesses. Those having illnesses valued vaccines only 0.06 degrees less than those not having before the pandemic aggravated. However, some those having illnesses changed their minds when the pandemic got worse, thus they valued vaccines 0.61 degrees more at a figure of 4.84. As a result of this increase, they valued vaccines 0.12 more than those not possessing any illnesses at all whose average figure was 4.72.

From the data collected in the USA, those

not having the presence of illnesses used to value vaccines 1.59 levels more on average than those having illnesses do, before the pandemic aggravated. However, after the pandemic worsened, it is important to note that those having illnesses changed their mind and valued vaccines so much that they even value vaccines 0.42 degrees more than those not having illnesses.

Considering both graphs together, there is an interesting trend. In both countries, those having illnesses did not value vaccines much at first, but after they realized that the pandemic was getting worse, they valued vaccines much more. Later this is discussed in section 4.2.5 Another fact implied, as mentioned previously, is that Thai people value vaccines more than Americans.

C. Vaccine preferences in Thailand and the US both prior and subsequent to the advent of new COVID-19 variants

This section emphasizes the main topic of this research: the respondents’ vaccine decision, both before and after the outbreak of new COVID-19 variants.

3.3.1. Vaccines preferences in Thailand both before and after the outbreak of the new variants and comparative analyses

Figure 3.3.1.1. Most preferred vaccine before having learned about new variants in Thailand

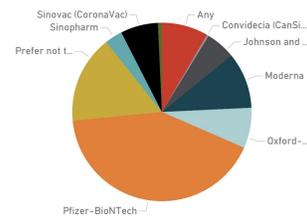
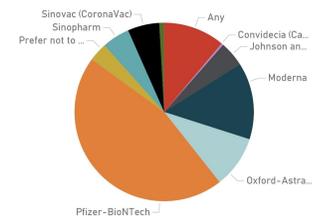


Figure 3.3.1.2. Most preferred vaccine after having learned about new variants in Thailand



The pie chart on figure 3.3.1.1. represents Thai respondents’ vaccine preferences before they were informed about the outbreak of new COVID-19 variants.

According to the graph, it is noticeable that Pfizer-BioNTech, an mRNA vaccine, was the most preferred vaccine as it was demanded by 41.89%, followed by Moderna, which is also an mRNA vaccine, accounting for 10.16%, and AstraZeneca, a viral vector vaccine, having the figure of 7.31%. It is of importance to note that in this period, a whopping 15.86% of respondents prefer not to get vaccinated. Sinovac and Johnson and Johnson’s vaccines were demanded by 6.77% and 5.35% of respondents, respectively. Also, 8.38% of respondents reported preferring any vaccines available during the period.

The pie chart on figure 3.3.1.2. represents Thai respondents’ vaccine preferences after they were informed about the outbreak of new COVID-19 variants.

Subsequent to the outbreak, Pfizer was still the most preferred vaccine and its figure grew into 45.89%, which is almost half of the respondents. More people also prefer getting Moderna as it can be indicated in the new figure of 13.9%. Other vaccines seemed to witness only a slight increase in demand of no more than 3%. The most interesting feature is that more respondents (11.05%) accepted to have any vaccine after the outbreak. Also, there were now only less than 5% of respondents still refusing to be vaccinated.

3.3.2. Vaccines preferences in the US both before and after the outbreak of the new variants and comparative analyses

Figure 3.3.2.1. Most preferred vaccine before having learned about new variants in the US

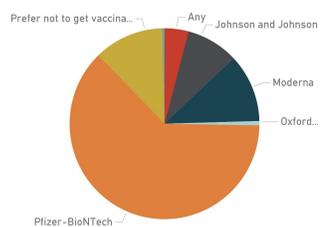
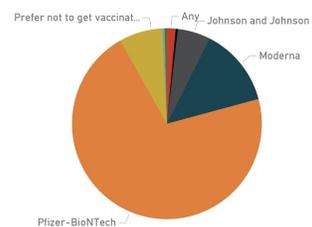


Figure 3.3.2.2. Most preferred vaccine after having learned about new variants in the US



The pie chart on figure 3.3.2.1. and 3.3.2.2.

represents Thai respondents’ vaccine preferences before and after they were informed about the outbreak of new COVID-19 variants, respectively.

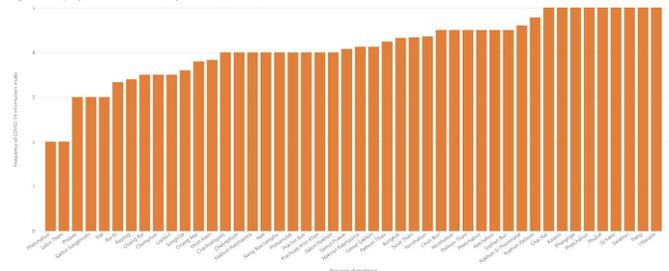
According to the graph, Pfizer-BioNTech, an mRNA vaccine, was the most preferred vaccine as it is demanded by a whopping 62.45% of respondents. Moderna ranked the second accounting for about 12%, and Johnson and Johnson have the figure of almost 9%, ranking it the third most preferred vaccine. In this period, 11.89% of respondents prefer not to get vaccinated. Most interestingly, AstraZeneca from Oxford was acceptable by less than 1% of respondents, and other vaccines were almost not demanded at all.

Soon after the pandemic aggravated, Pfizer-BioNTech was now preferred by almost three-quarters of people. Moderna was also demanded by more people, accounting for 13.38% of people. Fractions of people preferring Johnson and Johnson lessened only slightly. However, there was only 7.43% of people preferring not to get vaccinated.

D. Effects of living areas on various indicators and correlations between indicators

3.4.1. The correlation between provinces of residence and frequency information reception in Thailand

Figure 3.4.1.1. Frequency of COVID-19 information intake by Province of residence in Thailand



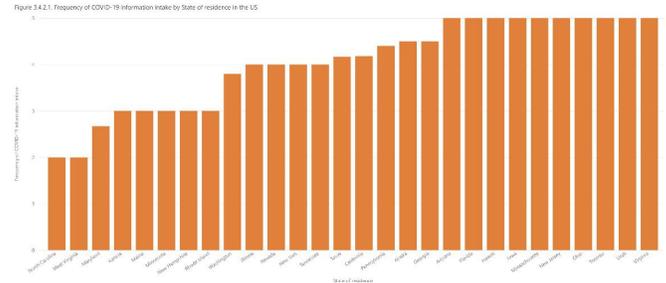


Figure 3.4.1.1. presents the frequency of COVID-19 information reception by the province of residence in Thailand. From the average figure in each province, it is obvious that most of the provinces had the level of the information intake at 3.00-5.00, but there are only two provinces Phetchabun and Udon Thani having the average level of the information intake at 2.00. There are no respondents answering the level between 0.00 to 1.99 , representing that all residents in each province have known at least little information about the COVID-19 situation in the country.

Figure 3.4.1.2. illustrates the average frequency of the information intake in each province presented on the map chart. The collected data revealed that most of the respondents reside in the central and eastern regions of Thailand. The average degrees of information reception are high in prominent provinces near Bangkok and Bangkok itself where the population is large.[6] The figures in Samut Prakan, Samut Sakhon Bangkok, Nonthaburi, and Nakhon Pathom are 4.08, 4.13, 4.32, 4.35, and 4.78. respectively. Other provinces in which high levels of concern were observed were provinces attracting tourists[7] including Chon Buri, Phangnga, and Phuket in which the figures were 4.50, 5.00, and 5.00, respectively.

3.4.2. The correlation between states of residence and frequency information reception in the US

Comparing Thailand and the US, the results are rather similar to each other. Figure 3.4.2.1. demonstrates respondents, in overall, received news quite often because most of the results illustrated that the level of the information intake from each state was around 3.00-5.00. However, there are only three states: North Carolina, West Virginia, and Maryland, giving the frequency of the information intake lower than 3.00. Similar to the results from Thailand, none of the respondents answered the level between 0.00 to 1.99, indicating a high level of information alertness in the US.

In figure 3.4.2.2, the most obvious feature is that the average levels of news reception were high in the states located on the east coast where the population was dense [8] and well known tourist attractions located on.[9] The average levels from respondents who resided in New York, California, Massachusetts, Florida, and Hawaii 4.00, 4.18, 5.00, 5.00, and 5.00, respectively. With all these states having a high level’s frequency of the information intake, a correlation between the

population density and the tourist attraction sites could be concluded.

3.4.3. Perceived severity levels by provinces of residence and the correlation between perceived severity levels and concerns and other indicators in Thailand

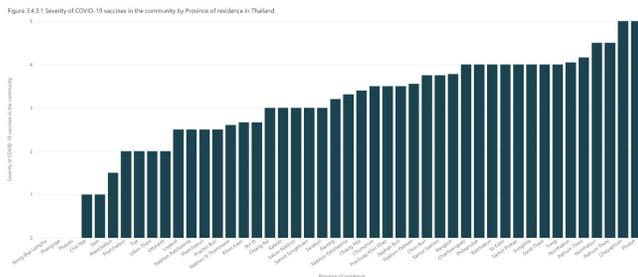


Figure 3.4.3.2. Severity of the situation by Province in Thailand



Figure 3.4.3.2. indicates the opinion-based severity of COVID-19 in each province. The highest average level was 5.00, spotted in Chaiyaphum and Phuket where the frequency levels of the information intake of these two provinces were 4.00 and 5.00, in order. According to this example, there is a positive correlation between concerns and frequency levels as indicated in section 3.1.4. In contrast, Phangnga’s perceived severity level was interestingly 0.00, whereas the frequency of the information intake was at level 5.00. Another contrast was that Phetchaburi had the frequency of the information intake’s level was 5.00, but the severity was only

2.50. Later this is discussed in section 4.4

The information from the chart above (figure 3.4.3.1.) shows that people in different provinces had different perceptions of severity. Consider Bangkok, the capital city of Thailand. Bangkok’s severity level was 3.78 though there were substantial infections back in the time the research was conducted. However, the perceived severity of the surrounding provinces was higher. For example, Nonthaburi was 4.05, Samut Prakan was 4.00, Samut Sakhon was 3.75, though these provinces had far lower infection rates at the period of data collection.[10] Later this phenomenon is discussed in section 4.4

3.4.4. Perceived severity levels by states of residence and the correlation between perceived severity levels and concerns and other indicators in the US

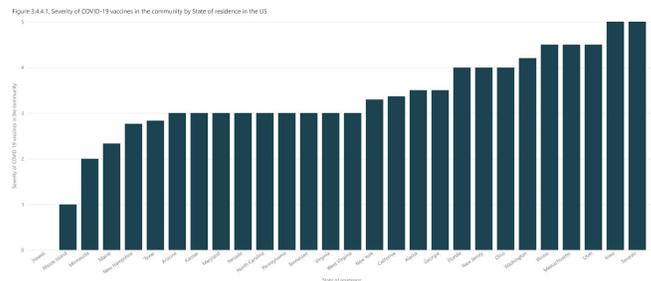


Figure 3.4.4.1. Severity of COVID-19 vaccines in the community by State of residence in the US

Figure 3.4.4.2. Severity of the situation by State in the US



Considering both charts above (figure 3.4.4.1. and 3.4.4.2.), Hawaii’s severity was the lowest at 0.00 though they were avid followers of

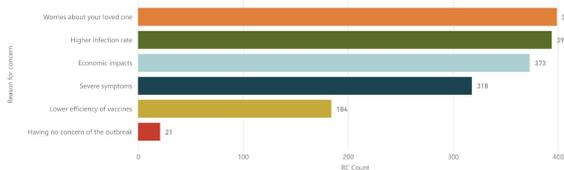
respectively.

After all, Hawaii was the only case that was different. Hawaii had a low level of concern and severity, but the frequency of the information intake is 5.00. The respondent from Hawaii is the only one that is different from others. Later this exception is explained in section 4.4

E. Reasons for concern in Thailand and USA

Thai’s Reason For Concern

Figure 3.5.1. Count of each Cause of Concerns regarding COVID-19 in Thailand



American’s Reason For Concern

Figure 3.5.2. Count of each Source of Information regarding COVID-19 in Thailand

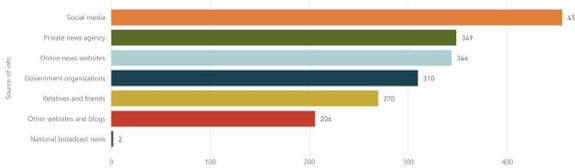


Figure 3.5.1. is the data collected from Thais’ respondents about their reasons for concern. The biggest reason for concern was concerns about the family’s members as 23.62% selected this. 23.33% of the respondents were concerned due to the higher infection, or new cases, and deaths.

Additionally, 22.08% were worried about the pandemic because of the negative ramifications of COVID-19 on their economic status. The COVID-19 pandemic’s long-term repercussions on the economy resulting in higher unemployment rate and some businesses need to shut down.[11]

Moreover, 18.83% of the respondents were concerned about severe symptoms resulting from COVID-19. COVID-19’s symptoms include fever, cough, headache, body ache, diarrhea, and in severe cases, the infection can cause pneumonia,

severe acute respiratory syndromes, kidney failures, and even deaths. Because of these, some people prefer to get vaccinated to protect themselves from the virus.[12] Instead of having efficient vaccines that work against the new variants, Thailand introduced lower efficiency vaccines which would not work against the new variants, according to reliable research. Accordingly, 10.89% were concerned because of the low-efficiency vaccines.[13] Only 1.25% of the respondents are not concerned about the spreading of COVID-19 new variants.

Comparing figure 3.5.1. and figure 3.5.2., the results from both Thai and American respondents were rather similar to each other. The order of what people were most concerned about was exactly the same with Thailand. The only distinction was the percentages of people voting for each cause.

After all, this can be concluded that Americans and Thais shared the same biggest concern: worries about their loved ones. Also, even though the pandemic was severe in both countries, some people were still not concerned about the outbreak, surprisingly.

IV. DISCUSSIONS

The main goal of this research is to study the effects of various factors on concern levels of Thais and Americans, vaccine necessity levels both prior and subsequent to the outbreak of new COVID-19 variants, and vaccine preferences. The correlations between areas and concern levels, perceived severity, and information reception are drawn. Also, causes of concerns are also studied.

A. Effects of various factors on concern levels in Thailand and the US

1) Age

According to subsection 3.1 in the ‘Results’ section, features in both Thai and American charts seem to comply with common sense because people usually get weaker as they age, thus, being more afraid of the COVID-19 situation. Deviations from this hypothesis are quite insignificant; thus, overall there was a positive correlation between age and concerns.

The elderlies’ low concern levels in Thailand might be hypothetically attributed to the information intake. Youths and adults consume news every day, whereas the oldest and youngest people are less eager to listen to the news. Hence, people in the latter groups will be more likely to have less information regarding how worse the catastrophe is and may concern less. However, this hypothesis still lacks evidence, and more studies are required to support it because it could also be that there was a sampling error.

The low average concern level in Americans aged 66-75 was very likely to be attributed to a sampling error since even people aged above 76 were concerned much more than them. Another possibility might be that there existed the effects of different news reception in America, but this research could not gain enough old respondents to represent the whole American population. It could also be that there simply were sampling errors in the group of Americans aged 66-75, and above 76.

2) Having elderlies in the family

According to subsection 3.1.2, having elderlies in respondents’ families caused Americans to increase their concern level more significantly than Thais, though the average

concern levels in Thailand far exceeded those in the USA, regardless of whether respondents lived with the old.

This might either reflect that Americans, on average, care more of their elderlies, or simply reflect that Thai people already had high levels of concerns and whether they had older people in their family or not did not bring differences to their opinions.

3) Perceived severity of COVID-19 situation in living areas

The only exception among Thai respondents was found in the group of people saying their neighbourhood’s COVID-19 situation was not perilous at all (level 0), back in the time the research was conducted. Although people in this group considered their environments safe, they, somehow, were still perturbed by the situation at an average level of 4.00. Though this might seem to be a significant exception, note that there are only a few respondents in the aforementioned group; therefore, these exceptional statistics have a high tendency to be just an error.

Also in the US, those saying there was nothing to be worried about with the pandemic in their vicinity provided an average figure of 2.67, which was more than people saying the severity of the pandemic is only at level 1. Though this might seem to be a significant exception, note that there are only a few respondents in the exceptional group; therefore, these exceptional statistics have a high tendency to be just an error.

Ignoring the minor exceptions, the overall trends of concern levels with regard to the opinion-based severity both in Thailand and the USA were positively correlated. One stark difference was that Thai people were, on average, far more concerned than their American counterparts at every level of opinion-based COVID-19 severity in their vicinity.

4) Frequency of information reception

Though there existed quite a clear positive correlation in figures in section 3.1.4. Note that this was only a correlation. No certain causation could be implied since it could be either that news causes anxiety or that anxiety triggers people's interest in news.

5) Number of variants known

There existed an ambiguous trend of growing concerns among those who knew more COVID-19 variants in figures in section 3.1.5. Also, as indicated in the previous comparisons, Thai respondents were usually more concerned than their American counterparts, but there was one exception: those knowing 8 COVID-19 variants in America were more concerned about the situation than their Thai counterparts. Due to the high number of fluctuations, no clear conclusions could be drawn from the number of variants known.

6) Personal illnesses

Results in section 3.1.6 are expected. People suffering from personal illnesses are hypothesized to be more concerned about the severe COVID-19 situation because of their higher predisposition to severe symptoms.[14] Also, we can conclude that the presence of illnesses affects Americans more than Thais significantly as the differences between the figures of groups having and not having illnesses were astounding.

B. Effects of various factors on perceived vaccine necessity in Thailand and the US**1) Age**

From section 3.2.1, there was a positive correlation of age and vaccine necessity though there was a high degree of fluctuation.

Prior to the outbreak of new COVID-19 variants, there were two significant exceptions to

the aforementioned correlation in groups of people aged 26-35 and above 76. The deviated phenomenon in the older group may be attributed to the effects of information reception as discussed in section 4.1.1, but the deviations in the group of people aged 26-35 were unable to be explained. Thus, the correlation is very ambiguous.

However, after new COVID-19 variants broke out in 2020, the aforementioned correlation was more obvious as the difference was less significant than the exception in the previous period. One interesting fact was that both in America and Thailand, people of all groups averagely valued vaccines after the COVID-19 outbreak no less than the degree before the outbreak, indicating the clear effects of new variants on people's opinion shift.

2) Having elderlies in the family

The figures in charts in section 3.2.2 remained the same both in Thailand and the US regardless of whether respondents had elderlies in their families or not. Thus, it can be concluded that both Thai and American people did not consider this factor in judging the vaccine necessity.

3) Frequency of information reception

Not all Thai people valued vaccines more after the outbreak of the new COVID-19 variants. Surprisingly, Thai people in the group hardly receiving information (level 0-1), on average, valued vaccines less after the new variants are reported. This may be due to a sampling error because there were only two respondents in the group. The remaining groups' trends were mostly compatible with our common sense as they valued vaccines more when the COVID-19 situation elevated.

In the US, subsequent to the outbreak, all groups of people averagely valued vaccines more. Most surprisingly, the highest increase was spotted in the group not receiving updated information. This phenomenon was very questionable, since

they did not receive any information, it was very unlikely that they would value vaccines more, let alone increase their vaccine necessity that much. Therefore, ignoring this piece of information is suggested. After ruling out that questionable piece of information, it can now be concluded that more COVID-19 news taken coexisted with the increased opinion-based necessity of vaccines in the US.

Comparing the statistics from both countries, we can conclude that there was a strong positive correlation between the frequency of news reception and the opinion-based necessity both in Thailand and the USA.

4) Number of variants known

In Thailand, the greater number of variants known coexisted with higher vaccine importance. That being said, the trend was ambiguous as there were lots of fluctuations. This also existed in the US.

Despite the ambiguity described above, there was an evident trend indicating the significant increase of vaccine necessity subsequent to the outbreak of new strains of viruses both in Thailand and America, indicating a directional shift in opinions.

5) Personal illnesses

Considering both graphs in section 3.2.5 together, there is an interesting trend. In both countries, those having illnesses did not value vaccines much at first, but after they realized that the pandemic was getting worse, they valued vaccines much more. This phenomenon was most likely attributed to the fact that these people, at first, did not deem vaccines necessary since they thought that the cost of vaccines' side effects outweighed their benefits. However, the new viruses caused apprehension, thus, they considered vaccines beneficial so much that they valued them at a very high level.

C. Effects of new COVID-19 variants on vaccine preferences

Though people from both countries valued the importance of vaccines after having known about the new variants much more than before having learned about them. Thais and Americans preferred distinct types of vaccines.

Overall, they both preferred to get the most effective ones including Pfizer-BioNTech Moderna, Johnson and Johnson's.[15] However, the less preferred vaccines were different. The proportion of people agreeing to get any vaccines in Thailand was much more than in America. Some Thais even agreed to get Sinovac, the least efficient vaccine. This phenomenon may be due to the Thai government's propaganda aiming people to get Sinovac and their effortful purchases of Sinovac in May and June 2021 [16], but at least some of them realized the efficiency of other vaccines after there had been the new variants.

In both countries, Some people did not value vaccines at first. This might be due partly to the vaccines' cost, the side effects, and other factors. Later, they realized that vaccines are necessary. It was obvious that fewer people preferred not to get vaccinated, reflecting a beneficial improvement to society.[17]

D. Effects of living areas on various indicators and the interconnectedness of indicators

1) Correlations between areas of living and indicators

Focusing on data in section 3.4, by observing the example of prominent provinces in Thailand and east coastal states in the US, a

correlation between high tourist attractions, together with dense population, and higher concerns, frequency of information reception, and perceived severity levels was hypothesized. This could possibly be the case because when these areas are filled with people, whether they are citizens or tourists, there are higher risks of infection. Thus, the citizens are more aware of the upcoming COVID-19 situation and try to keep their news updated.

2) Correlations between indicators

Not only did there exist correlations between areas of living and these indicators, there also existed correlations between these three indicators.

Data in section 3.4.3 and 3.4.4 had one peculiar deviation from the hypothesis stating that concern levels correlated with frequency of information which was supported by the bar graphs in section 4.1.4 and the examples of Chaiyaphum and Phuket in section 3.3. Phangnga's perceived severity level was 0.00, whereas the frequency of the information intake's level was 5.00. Another contrasting evidence was that Phetchaburi had the frequency of the information intake's level was 5.00, but the severity is only 2.50. The hypothesis, hence, did not prove a clear stance here, and should be debunked if it was proven that the results in section 3.4.3 and 3.4.4 was not a sampling error.

Considering both charts in section 4.4, Hawaii's severity was the lowest at 0.00. Hawaii is an island located in the Pacific Ocean which is 2,467 miles away from California. It did not have any land or state next to it, according to Google Maps. Because of this, the risk of getting the virus might decrease and the residents might rate the

severity low, though they were avid followers of COVID-19 news, as indicated in section 4.2. This phenomenon, if not just a sampling error, was most likely to be attributed to the fact that people who lived peacefully without COVID-19 in their neighborhood, kept updating the situation in order to prepare themselves for further problems.

For the data in section 3.4.3 that indicates that there were only slight differences in perceived severity levels in Bangkok and cities around it despite the stark differences in, it was hypothesized that people's perceived COVID-19 severity level in these provinces are not much different due to the possibility of COVID-19 spread between these interconnected provinces. Psychologically, people might become afraid of the pandemic after knowing that the surrounding areas had had severe infections. Though it seems to be reasonable, the trend in the US was not quite obvious. Also there was evidence contrasting this hypothesis: the case of Phuket and Phangnga located next to each other. Unexpectedly Phuket's severity is 5.00, while Phangnga's severity is 0.00. Though this may seem to occur by sampling error, take a look at another example in the US.

Turning to the US, the highest severity average was 5.00 in Toronto and Iowa. States that are next to these two high-risk states are Kansas, Minnesota, Illinois, Ohio, Pennsylvania, and New York. Their severity levels are 3.00, 2.00, 4.50, 4.00, 3.00, and 3.30 orderly. Most of the surrounding state has medium to high severity of COVID-19. Thus, it seems like the possibility that people might perceive near severity levels because the cities' interconnectedness should be debunked.

Comparing the results in section 3.5 with the average perceived severity level of each

province demonstrated in the last section, some Thai provinces' average levels of concern were non-directly related to perceived severity. Thus, the convincing hypothesis that these two might relate was obviously debunked.

However, as there are many provinces where the frequency of the information intake goes in the same direction with its level of concern, it is more reasonable to conclude that the levels of concern were positively correlated to the frequency levels of information intake. People might possibly be made more concerned when they received COVID-19 news including the new cases and clusters, death tolls, and countrywide lockdowns.

The exception of Hawaii in section 3.4.6 that it had low concern and perceived severity levels, despite the high level of frequency reception might be attributed to its geographical characteristics. Obviously concluded from the map, Hawaii was located far from the mainland. Thus, disease transmission was quite difficult. If there were no sampling errors, Hawaiian may find the situation there peaceful, but listen to news to learn about COVID-19 and prepare themselves for the upcoming problems if later Hawaii was infected.

E. Reasons for concerns Thailand and USA

Most respondents were concerned about the new variants and the biggest reason for their concern was worries about their family members. This reflected a tight knitted relationship within acquaintances both in Thailand and the US. Concerns of fewer people involve economic status and COVID-19 symptoms, but both were still concerned a lot in both countries. The similarities in concern orders in both countries indicate the effects of COVID-19 on people all

over the world and remind that COVID-19 is an important issue which requires attention.

Though this research still had unexpected and ambiguous results that could be caused by the sampling error, it would be great if further research could fill these gaps and earn more insights by gaining more respondents or using other criteria for each section.

V. LIMITATIONS AND RECOMMENDATIONS

A. Sampling Error

Though this research managed to collect data from people from myriad groups, taking into account 561 Thai respondents and 271 American respondents, there existed an impediment in calculating the data regarding the elderly people and children who did not have an interest in using social media in which the survey was launched. Therefore, the data had a high degree of sampling error in the group of people aged below 15 and higher than 65. This error brought about a plethora of problems in the stage of data analysis, including ambiguous trends observed in many graphs and peculiar controversies mentioned in the result section.

If possible, it would be very beneficial to gain more of these groups of people by using other means of reaching them, but that would require more effort, budget, and time.

B. Volatile opinions

COVID-19 is ever-changing, rendering the situation worse and worse at every moment. It is justifiable that many people have volatile opinions, including the ones regarding vaccine preferences. This phenomenon inevitably debunks the validity of the processed statistics within a few months.

However, the research could be utilized to get a grasp of how people decide which vaccine they will choose and predict how their decisions will be changed in the future.

VI. CONCLUSION

After the outbreak of COVID-19 new variants, the situation all over the world was more concerning and uncontrollable. Vaccination is the most necessary way to stop the pandemic from progressing. Apart from aiming to investigate the changes in vaccine preferences due to the new COVID-19 variants, this research also targets studying factors that affect people's concern levels and the necessity of vaccines to gain more profound aspects regarding people's rationales behind their vaccine decisions. Also, this research attempts to find the correlation between areas of living and frequency of information intake, opinion-based severity of the pandemic, and people's concern levels. Furthermore, this research studies main factors that affect people's concerns.

In Thailand, the severity of the pandemic, information reception, number of variants known, and personal illnesses had a positive correlation to concern levels with only small fluctuations, whereas age, and especially whether having elders did not have a clear contribution to the concern levels. Also, the more frequently people received information and knew more variants, the more they valued vaccines both prior to and after the outbreak of new variants. Age and pandemic severity, albeit not demonstrating significant effects on valuing vaccines before new variants spread, later depicted a positive correlation with vaccines value. However, having elderlies and illnesses did not have a significant effect both before and after the outbreak of new variants. The result from each map chart shows that the frequency of the information intake depended on the density of the population and the tourist attractions, the severity levels in each area increased where the

surrounding areas are the high-risk areas, and most of the provinces are concerned at the level of 3.00-5.00. The result from figure 6.1.1. indicates that the biggest reason for concern for Thais was worries about their loved ones.

In the US, higher severity of the pandemic and information reception, and presence of personal illnesses significantly contributed to higher concern levels with only a few fluctuations. However, age, having elders, and the number of variants known were not significantly related to average degrees of concern. There were uncertainties on the direction in which age, pandemic severity, and the number of variants known affected how people value vaccines. Nevertheless, necessity levels did have a positive correlation with the frequency of information intake with few fluctuations both in the period before and after the outbreak. Again, having elders still did not create a stark difference in vaccine necessities. Most interestingly, those with personal illnesses valued vaccines less than those with none of those at first, but later they realized the importance after the advent of new COVID-19 variants. The frequency of the information intake also had a positive correlation with the density of the population and the tourist attractions. The states which were high-risk states and often received the information tended to have more concerns. The biggest reason for Americans' concern was also about their loved ones

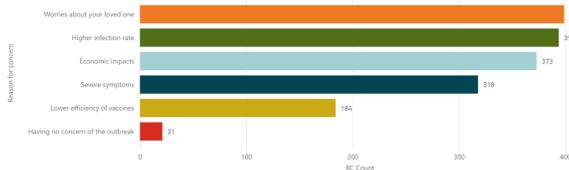
Though Thais and Americans reported distinct degrees of their concerns, how much they valued vaccines, and the types of vaccines chosen, they both shared significant common changes in their opinions after there had been an outbreak of new COVID-19 variants. They tended to be more aware of COVID-19, and valued vaccines more. Furthermore, more people preferred to get mRNA vaccines, while fewer people refused to be vaccinated or get vaccines manufactured by traditional technologies.

APPENDIX: Sources of COVID-19 information chosen by Thais and Americans

3.5.2. Sources of information in Thailand and the US

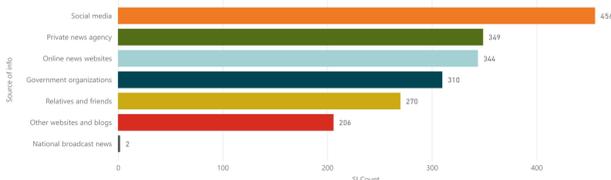
Thai’s Source of Information

Figure 3.5.1. Count of each Cause of Concerns regarding COVID-19 in Thailand



American’s Source of Information

Figure 3.5.2. Count of each Source of Information regarding COVID-19 in Thailand



From figure 6.1.2, 23.54% of the respondents took in the information by social media. 18.02% of them updated the situation by listening to news or reading an article from private news agencies. Online news websites were quite popular as 17.76% of them selected this to be one of their sources of information. 16.00% of them followed up the situation by listening to announcements from government organizations. 10.64% and 13.94% of them chose to receive news secondhand from websites and blogs and from their acquaintances, respectively. Another 0.10% or the least chosen source of information in Thailand was national broadcast.

From the explanation above, the most impactful source for Thais was social media. Following was receiving information from news and the government organization.

Shifting to figure 6.2.2, the most important source that 21.75% of them of American respondents chose to intake the information was a

government organization. 21.27% of respondents also chose to receive the information via social media. 17.67% of them kept in touch with the pandemic situation by online website news. 17.07% of them caught up with the outbreak through relatives and friends. Unlike their Thai counterparts, 12.38% of American respondents received the information through this. Only 7.33% selected online websites for their source. Lastly, only 2.53% knew the updated situation by following private news agencies.

In conclusion, Americans’ and Thais’ most relied upon sources of information were quite different as the Americans relied mostly on governmental organizations while Thais relied on social media. These two platforms had a huge difference in their narratives and presentations of information and therefore this might play a huge role in affecting opinions of the information receivers.

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