

# Supplementary Materials

## Supplementary material 1

### Formula of sample size calculation

$$n = 2[Z_{\alpha/2} + Z_{\beta}]^2 \sigma^2 / d^2$$

The difference of mean score in two groups (d) equals to 3 [1]

The standard deviation in unexposed group ( $\sigma$ ) equals to 5.23 [1]

$Z_{\alpha/2}$  equals to 1.96 at 95% of confidence interval.

$Z_{\beta}$  equals to 0.84 at 80% of discrimination power.

When the formula was calculated, there were 48 samples for each province. Considering a possible 20% non-response rate, 60 samples were selected in each province or 120 for both provinces. Additionally, 120 general migrants in that area were recruited by using 1:1 matching strategy to compare as baseline data.

## Supplementary material 2

**Table S1.** Health literacy questionnaire.

Question	Answer		
	Cannot Do /Disagree (Score 1)	Difficult/Neutral (Score 2)	Easy/Agree (Score 3)
1. I can find information about health problems or concerns			
2. I can find health information from different places e.g., health personals, media, etc.			
3. I always check health information in order to keep myself in good health			
4. I have enough health information to deal with my health problems			
5. After I have read health information in my native language, I can understand all information			
6. After I have heard health information in my native language, I can understand all information			
7. After getting health information, I try to understand the information			
8. After receiving health information, I always compare health information from different sources			
9. When I see new information about health, I always check whether the sources are reliable before I believe or follow.			
10. I know how to find reliable sources of health information before I believe or follow.			
11. You have a competency to make a right decision after receiving health information			
12. You have a competency to share health information to others			

### Supplementary material 3

**Table S2.** The results of bivariate analysis.

Variables	P-value
Province	0.0520
Migrant type	<0.001 *
Sex	0.9983
Age	0.5201
Married status	0.0532
Income	0.0605
Education level	<0.001 *
Duration of living in Thailand	0.0021 *
Myanmar listening skill	0.3615
Myanmar reading skill	0.5161
Thai listening skill	<0.001 *
Thai reading skill	<0.001 *
Affiliation	<0.001 *

\* P-value < 0.05.

### Reference

1. Intarakamhang, U. *Creating and Developing of Thailand Health Literacy Scales*; Behavioral Science Research Institute, Srinakharinwirot University: Bangkok, Thailand, 2017.