

# The Impact of Parental Migration on the Health of Children Living Separately from Parents: A Case Study of Kanchanaburi, Thailand

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*An increasing number of parents are migrating to seek jobs elsewhere while leaving young children in the care of others, and little is known about the consequences for children. This study examines the impact of parental out-migration on the physical health of children left behind. Data for this paper were taken from the 2007 survey of migration and health from Kanchanaburi, Thailand. A total of 11,241 children who have both parents were included in the survey. The study found that 14.5% of children had either one or both migrant parents. Overall, 25.5% of all children had an illness during the month prior to the survey. Analysis reveals that having one migrant parent was independently associated with a higher likelihood of an illness (odds ratio of mother migrant children = 1.37; odds ratio of father migrant children = 1.23) than those with no parents or both parents migrating. The findings suggest that strategies to alleviate the negative impact of parental migration as well as to maintain and enhance the well-being of families, especially of the children left behind are warranted.*

**Keywords:** *parental migration, children living separately, child health*

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## Background

Migration is a phenomenon that has a multi-faceted impact on individuals, families, societies, economies and cultures, both in the place of origin and destination. Migration affects the physical, mental, and emotional health and well-being of migrants themselves, of the people at the place of origin (left behind), and of the people at the place of destination (Carballo, Divino, & Zeric, 1998). Research has shown that parental migration can have both positive and negative consequences for migrants and families left behind. On the one hand, migration can enhance the well-being of migrants as well as that of their families (Chant & Radcliffe, 1992; Kahn et al., 2003; Stark & Taylor, 1991). Studies have shown that migration leads to better health among the population left behind (Gulati, 1993; Hadi, 1999; Kuhn, 2003). Furthermore, studies have also shown that children of migrant parents are taller (Mansuri, 2007; Scalabrini Migration Center, 2005), and weigh better (Mansuri, 2007; McKenzie, 2006) compared to the children of non-migrants. A study conducted in Mexico revealed that migration of parents improves child health outcomes and lowers infant mortality (McKenzie, 2006). In a review article of multiple studies, Bryant (2005) suggests that children of migrant households have better health than children in non-migrant households due to the use of remittances for children's education and health needs. Most existing research has also focused on the importance of remittances and found that remittances received from migration could support the family left behind by minimizing economic risk and overcoming capital constraints (Massey et al., 1993; Stark & Taylor, 1991).

On the other hand, some research has found negative consequences of parental migration for the mental health of children left behind (Gao et al., 2010; Jones, Sharpe, & Sogren, 2004; Pottinger, 2005; Save the Children Sri Lanka, 2006), while some others have observed negative effects on physical health (Konseiga et al., 2009; Salah, 2008; Shen et al., 2009). Among these, a study conducted with school students in rural China found that the annual injury rate among children left behind was more than twice that of children living with parents (Shen, et al., 2009). Another study found that children in Nairobi whose mother had migrated were most vulnerable to cold, cough, stomach ache, headache and loss of appetite (Konseiga, et al., 2009). Similarly, a study conducted by UNICEF in Moldova found that children left behind do not receive needed care and medicine on time and receive poorer quality food. This study also found that children of migrant parents were

exposed to harmful consequences such as alcohol consumption, drug use and sexual abuse that was related to the availability of pocket money given by migrant parents, peer pressure, inadequate supervision or an under-protected situation (Salah, 2008). However, a small-scale study in Thailand indicates that during a six-month period, there was no relationship between parental migration and the health or nutritional status of children (Nanthamongkolchai, Ladda, Nichara, & Sirikul, 2006).

In Thailand, Bangkok and its surrounding areas have emerged as the major destination for migrants in the entire Greater Mekong Sub-region and for internal migrants from other provinces as well. The National Migration Survey, conducted in 1992, found that 22 percent of the population had moved elsewhere for one month or more in the past five years (Chamrathirong et al., 1995). Migration to Bangkok was more than double during the period between 1975-1980 and 1985-1990 when the service sector was greatly expanding (Anh, 2003; Guest, 2003). Internal migration, especially from the Northeastern and Northern regions to Bangkok and the Central region, has supported economic growth in the country by providing labor for construction, manufacturing and service industries, and by generating remittances to the regions of out-migration (Chamrathirong, 1983; 2007).

Recently a few studies have examined the impact of parental migration on children left behind. Among these are studies by Jampaklay (2006), Jones & Kittisuksathit (2003) and Nanthamongkolchai et al., (2006). These studies give a mixed picture of the consequences, both positive and negative, on children (Jampaklay, 2011). About 20 percent of Thai children were found to be living apart from their parents, largely because of parental migration (Huguet & Chamrathirong, 2011). Yet, the impact of parental migration on health of the children left behind is an almost unexplored topic. Research that addresses the complex causal relation between migration and children's health in general is scarce.

In the coming years Thailand is likely to experience a larger number of left-behind children due to increasing number of migrants, both internal and cross-border. In this situation, the country needs effective policies that can maximize positive effects of migration and minimize its negative effects on families and communities both at places of origin and destination. Concrete evidences based on research are needed for policy formulation and program design. The present study aims to contribute to effective policy for the benefit of the children of the migrant parents.

## Methods

### Data and study population

Data for this analysis were taken from the study on “Migration and Health, Kanchanaburi Demographic Surveillance System (KDSS), 2007”. This survey was conducted in Kanchanaburi province which is located in the western part of the country. The province shares a long border with Myanmar and contains a variety of ethnic groups and migrants, both documented and undocumented, from Myanmar. The information was collected from 106 sites (94 villages and 12 urban census blocks) scattered throughout the province. The primary sampling units for rural areas were villages and for urban areas were census blocks. Site selection was undertaken using a stratified systematic sample design.

Children who were from separated/divorced parents, or whose parent(s) had died, were excluded from the analysis. Similarly due to very few cases of children whose parent(s) migrated abroad were also excluded from the analysis. Therefore, a total of 11,241 children younger than 15 years are included in the analysis. Among these children, 1,629 (14.5%) children have internal out-migrant parent(s) and 9,612 (85.5%) children have non-migrant parents.

### Data analysis

Initially, univariate or descriptive analyses was performed to provide descriptive characteristics of the study children according to individual, household, and community factors. Both bivariate and multivariate techniques were applied to examine the association between parental out-migration and the physical health status of children left behind. The Chi-square test was used to test the association between the variables in the bivariate analysis. The variables were then re-examined in multivariate analysis in order to identify whether parental migration had a significant association with children’s health after controlling for other variables. The outcome variable is hypothesized to be influenced simultaneously by various factors at different levels. Due to the hierarchical nature of the data at the individual, household and community level, we have used multilevel logistic regression. The main rationale for using a multilevel model in this case is to get correct standard errors for the household-level and community-level variables. The STATA software was used to analyze the data. Before conducting the multivariate analysis, multicollinearity between the variables was assessed as discussed below.

## Variables

### *(i) Dependent variable*

Our dependent variable is the physical health of children, measured in terms of whether or not children had an illness during the month prior to the survey. Those children who did not have an illness were treated as 'in good health /no illness' and coded as 0. Those who had an illness were treated as 'in poor health/illness' and coded as 1.

### *(ii) Main independent variable*

Our main independent variable of interest is parental migration status. In this study, parental out-migration refers to whether a child's father, mother or both had temporarily migrated from Kanchanaburi province to other provinces within Thailand for work.

### *(iii) Control variables*

Individual characteristics of the child, socio-economic characteristics of the household and community-level characteristics were used as control variables in this study. Individual-level characteristics included age, sex, place of residence, ethnicity, and relationship with the head of household.<sup>11</sup> Household level variables included source of drinking water, whether the household had current debts, and wealth index. The household wealth index was created by using principal component analysis (PCA) of household characteristics and assets<sup>2</sup>; the households were then divided into quintiles. Community-level variables included availability in the village of regular bus routes, industrial factories, health facilities, and school.

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<sup>1</sup> Because primary school attendance is nearly universal in Thailand, educational attainment is highly correlated with child's age and so could not be examined independently.

<sup>2</sup> The household asset variables used to create household wealth index (using in the PCA) include type of roof material, type of walls, type of floor, sufficiency of water, whether the household had electricity and 17 other household assets (color TV, VDO/VCD/DVD, satellite dish, audio equipment stereo, radio, mobile phone, telephone, computer, air conditioner, sewing machine, washing machine, microwave, refrigerator, bicycle, motorcycle, car, pick up/van).

## Results

### A. Description of study population

#### *Characteristics of the sample population*

Overall, 85.5 percent of the study children (N=11,241), lived with both parents at the time of the survey. About 14 percent had either one or both parents as migrants. Among those with migrant parents, 6.3 percent had both father and mother as migrants and another six percent had only fathers migrating while very few (about 2 percent) had only mother currently migrating. About a third of children were below the age of five, and about half of the children were female. Less than one out of ten children lived in urban areas. About one out of seven children were non-Thai (Table 1).

More than four in five children usually drank water from the tap. A large majority of households where the children lived had their own toilets. Majority of the children's households were in debt. With regard to community characteristics, about one-fourth of the children lived in villages where regular bus routes were available. More than two-fifths lived in villages with a factory, while less than one-fifth lived in villages with a health facility. Nearly three in five children live in the village with a primary or secondary school (Table 1).

**Table 1:** Percentage of the sample children, by selected characteristics

<b>Selected characteristics</b>	<b>Percent</b>
<b>Migration status of parents</b>	
Non-migrants	85.5
At least one parent as migrant	14.5
- <i>Father only</i>	6.3
- <i>Mother only</i>	1.8
- <i>Both parents</i>	6.3
<b>Individual/children characteristics</b>	
Age 0-4 years	32.4
Female	48.7
Urban resident	6.8
Non-Thai	15.3

Table 1 cont.

<b>Selected characteristics</b>	<b>Percent</b>
<b>Household characteristics</b>	
Drinking water from tap	80.7
Having own toilet in house	89.1
Household having debts	74.2
<b>Community characteristics</b>	
Availability of regular bus route in the village	24.2
Presence of factory in the village	42.6
Availability of health facility in the village	15.8
Presence of school in the village	57.9
<b>Total number</b>	<b>11,241</b>

*Health status of children*

Overall, about one-fourth of the children had an illness during the past month prior to the survey. Among those children who had an illness, the large majority of them suffered from respiratory system disease such as common cold, pneumonia, influenza etc. (Table 2).

**Table 2:** Percentage of children by health status and type of illness

<b>Illness during the past one month</b>	<b>Percent</b>
No	74.5
Yes	25.5
<b>Total</b>	<b>100.0</b>
<b>N</b>	<b>11,241</b>
<b>Disease/symptoms</b>	
Disease of the respiratory system	78.2
Headache/dizziness/backache	5.0
Problem of digestive system	3.5
Accident from vehicle/machine/other	1.8
Other disease	11.5
<b>Total</b>	<b>100.0</b>
<b>N</b>	<b>2,862</b>

## B. Bivariate analysis

### *Parental migration status and illness of children*

As seen above, about one-fourth of the children had an illness during the month prior to the survey. The bivariate analysis (Table 3) shows a clear association between having an illness and parents' being away as migrants, as a significantly higher percentage of children whose mother, father or both had migrated had an illness compared to those whose parent(s) were not migrants ( $p < 0.01$ ).

**Table 3:** Percentage of children with illness, by migration status of their parents

Parents' migration Status**	Percentage with illness	Total number of children
Non-migrant	24.8	9,612
Mother as migrant	31.1	206
Father as migrant	30.1	710
Both parents as migrants	27.8	713
<b>Total</b>	<b>25.5</b>	<b>11,241</b>

Note \*\* Chi-square test is significant at  $p < 0.01$

### *Socio-demographic characteristics of children and illness*

Children's age, ethnicity, and their relationship with the head of the household were significantly associated with illness. The older the children are, the lower the frequency of illness. Similarly, a significantly higher incidence of illness is found among children of Thai ethnicity and those who are grandchildren of the head of the household. The difference between Thai and non-Thai children could be due to a differing perception of illness between Thai and non-Thai respondents. It could also be closely related to the ability to seek medical care, since non-Thais are not eligible for the national health care scheme. On the other hand, sex of the child and place of residence do not have a statistically significant association with illness (Table 4).

**Table 4:** Percentage of children with illness during the past month prior to the survey, by their individual and socio-demographic characteristics

Socio-demographic characteristics of children	Percentage with illness	Total number of children
<b>Age group***</b>		
<i>0-4 years</i>	33.5	3,646
<i>5-9 years</i>	24.8	3,716
<i>10-14 years</i>	18.6	3,879
<b>Sex of the child</b>		
<i>Female</i>	25.2	5,472
<i>Male</i>	25.7	5,769
<b>Place of residence</b>		
<i>Urban</i>	26.6	768
<i>Rural</i>	25.4	10,473
<b>Ethnicity ***</b>		
<i>Non-Thai</i>	10.1	1,715
<i>Thai</i>	28.2	9,526
<b>Relationship with head of household ***</b>		
<i>Grand child</i>	29.1	3,699
<i>Son/daughter</i>	23.8	6,907
<i>Nephew/niece</i>	23.0	465
<i>Others</i>	20.0	170
<b>Total</b>	<b>25.5</b>	<b>11,241</b>

Note \*\*\* Significant at Chi-square test  $p < 0.001$

#### *Household characteristics and incidence of children's illness*

Household level characteristics such as the source of drinking water, household debt, and wealth status were found to have a significant association with illness. A significantly higher percentage of children whose source of drinking water was underground water or shallow well and whose household had debts experienced an illness during the month prior to the survey (Table 5). Contrary to expectations, children in the poorest households had a lower illness incidence than middle-or rich households. This may be because poorer households have lesser ability to seek medical care, and thus are less likely to take note of less serious illnesses.

**Table 5:** Percentage of children with illness in the past month prior to the survey, by demographic and socioeconomic characteristics of the household

<b>Demographic and socioeconomic characteristics of household</b>	<b>Percentage with illness</b>	<b>Total number of children</b>
<b>Source of drinking water ***</b>		
Tap water	24.0	9,071
Rain water	30.7	257
Shallow well	30.9	699
Under ground water	31.8	1,213
<b>Toilet facility</b>		
No	24.9	1,227
Yes	25.7	10,014
<b>Household debts ***</b>		
No	21.3	2,901
Yes	26.9	8,340
<b>Wealth status ***</b>		
Poor (1 <sup>st</sup> and 2 <sup>nd</sup> quintiles)	21.9	4,493
Middle (3 <sup>rd</sup> and 4 <sup>th</sup> quintiles)	28.5	4,499
Rich (5 <sup>th</sup> quintile)	26.6	2,249
<b>Total</b>	<b>25.5</b>	<b>11,241</b>

Note \*\*\* Significant at Chi-square test  $p < 0.001$ , and \*= $p < 0.05$

### *Community characteristics and incidence of children's illness*

Results show that community-level variables such as the availability of regular bus route in the village, health center, and school have a significant association with illness of children. Children from a village without a bus route and/or without a school are significantly more likely to have an illness than those in a village with a bus route or school. However, a significantly higher percentage of children in the villages with a health facility had an illness than those without a health facility in their villages (Table 6). This may be because the people who reside nearby health facility have higher ability to seek medical care, and thus are more likely to take note of less serious illnesses.

**Table 6:** Percentage of children with illness in the past month prior to the survey, by community-level characteristics

<b>Community-level characteristics</b>	<b>Percentage with illness</b>	<b>Total number of children</b>
<b>Bus route in the village ***</b>		
No	27.8	8,519
Yes	18.2	2,722
<b>Factory in the village</b>		
No	25.1	6,457
Yes	26.0	4,784
<b>Health facility in the village ***</b>		
No	24.7	9,462
Yes	29.6	1,779
<b>School (primary/secondary) in the village ***</b>		
No	28.0	4,732
Yes	23.6	6,509
<b>Total</b>	<b>25.5</b>	<b>11,241</b>

Note \*\*\* Significant at Chi-square test  $p < 0.001$

### C. Multivariate analysis

Multilevel logistic regression analysis was used to measure the strength of the association between parental migration and the probability of having an illness among children while controlling for other factors. Before analyzing the data using multilevel logistic regression, multicollinearity among variables was assessed. No serious intercorrelations were found among the independent variables. Only those variables that were found to be significant in the bivariate analysis were reexamined in the following multivariate analysis.

Four models were used in the analysis. The first model included parental migration status as the single independent variable and children's illness as the dependent variable. In the second model, variables measuring children's characteristics were added. Factors measuring socio-economic status of the household were included in

the third model. In the fourth and final model, community-level variables were added to examine the net effect of parental migration status on the health of children after controlling for the individual, household, and community level characteristics.

In the first model, parental migration variable was found to be significantly associated with illness of the children. Without controlling for any other variables, children whose mother, or father had migrated showed a higher risk of being ill during the month prior to the survey (OR=1.37 and OR=1.31 respectively;  $p<0.05$ ) as compared with those whose parents did not migrate,. However, having both parents migrated was not significantly different from having none of the parents migrated (OR=1.16,  $p<0.05$ ). Adverse impacts of parental migration on children's health remained significant after adding children's individual characteristics to the model. However, the reduction of the odds ratio of parental migration status after adding children's characteristics in the second model indicates that they are also important predictors of illness and mediate the effect of parental migration. Age and ethnicity showed a significant association with the physical health of children. When variables measuring the socioeconomic status of the household were added in third model, parental migration status, age of children, and ethnicity are still significant. Household debts and the source of drinking water also showed significant associations with illness of children.

After adding community-level characteristics in the fourth model, all the variables that were significant in the first, second and third model retained their significance level. However, the reducing odds ratios for most of the significant variables and the increase in pseudo- $R^2$  indicate that community-level variables also have an effect on illness of children. Furthermore, one of the community-level variables, i.e. availability of a bus route in the village, was a significant predictor for children's physical health. The log likelihood ratio test indicated that parental migration status, children's characteristics, household socio-economic status and community characteristics are all important to predict illness of the children left behind.

In the final model, the analysis found that parental migration was independently associated with poorer physical health (having an illness) of children who live separately from their parent(s). To be more precise, children whose mother or father had migrated showed a higher risk of having an illness (OR = 1.37 for mother migrant, and OR=1.23 for father migrant) as compared with those whose parents did not migrate after controlling for individual, household, and community-level characteristics.

In summary, this study found that having a migrant father or mother, household being in debt, drinking water from a less hygienic source, being of young age, and not having a bus route in the village were strong risk factors for poorer physical health of children.

**Table 7:** Odds ratio from multilevel logit model of having an illness in the past month, by individual characteristics of children, socioeconomic status of households, and community-level characteristics

		Model I	Model II	Model III	Model IV
<b>Main independent variable</b>					
Parents' migration Status	Non-migrant ( <i>ref.</i> )	1.00	1.00	1.00	1.00
	Mother migrant	1.37*	1.35*	1.34*	1.37*
	Father migrant	1.31*	1.22*	1.22*	1.23*
	Both parents migrants	1.16	1.12	1.13	1.16
<b>Children's characteristics</b>					
Age group	0-4 years		2.28***	2.31***	2.32***
	5-9 years		1.51***	1.52***	1.52***
	10-14 years ( <i>ref.</i> )		1.00	1.00	1.00
Ethnicity	Non-Thai		1.00	1.00	1.00
	Thai		3.61***	3.37***	2.95***
Relationship with head of household	Grandchild ( <i>ref.</i> )		1.00	1.00	1.00
	Son/daughter		1.07	1.08	1.08
	Nephew/niece		0.83	0.83	0.81
	Others		0.86	0.87	0.92
<b>Socio-economic status of household</b>					
Wealth status	Poor (1 <sup>st</sup> and 2 <sup>nd</sup> quintiles) ( <i>ref.</i> )			1.00	1.00
	Middle (3 <sup>rd</sup> and 4 <sup>th</sup> quintiles)			1.04	1.02
	Rich (5 <sup>th</sup> quintile)			0.96	0.91
Household debts	No ( <i>ref.</i> )			1.00	1.00
	Yes			1.15**	1.13*

Table 7 cont.

		Model I	Model II	Model III	Model IV
Source of drinking water	Tap water ( <i>ref.</i> )			1.00	1.00
	Rain water			1.18	1.12
	Shallow well water			1.40***	1.29**
	Deep well water			1.34***	1.28**
<b>Community characteristics</b>					
Availability of bus route in the village	No ( <i>ref.</i> )				1.00
	Yes				0.69*
Availability of health facility in village	No ( <i>ref.</i> )				1.00
	Yes				1.27
Availability of school (primary/secondary)	No ( <i>ref.</i> )				1.00
	Yes				0.92
Number of observations		11,241	11,241	11,241	11,241
<i>Wald Chi2</i>		8.50	213.5	279.6	286.5
<i>Prob&gt;Chi2</i>		0.0367	0.000	0.0000	0.0000
<i>Pseudo R2</i>		0.0012	0.0419	0.0448	0.0489
<i>Pseudo Log likelihood</i>		-6369.8	-6110.4	-6091.7	6065.5

Note \*\*\* Significant at  $p < 0.001$ , \*\*= $p < 0.01$  and \*= $p < 0.05$

## Discussion and Conclusions

Internal and international migration is a common phenomenon in Thailand, yet only a few studies have examined the impact of parental migration on children left behind. This study aims to contribute to our understanding of this phenomenon by examining whether parental migration is related to children's physical health.

The study found that a substantial percentage of children in Kanchanaburi province are living separately from either one or both parents due to parental migration. We found that children whose mother or father had migrated showed a higher risk of having an illness as compared with those whose parents did not migrate. Interestingly, our study showed no significantly higher impact of having both parents migrate on health of children. This could be due to the fact that both parents would not leave their children behind without a good child care available at home. As such children whose both-parents were migrants may be those in the good hands of

non-parent carers, most probably grandparents, and possibly including a wider extended family members. Grandparents may know better in bringing up children so there is not significant negative impact on health of children of both migrant parents. The result could also stem from reverse causality, whereby both parents migrated because their children are healthier. This explanation needs further investigation, however.

Our study found that children from household with migrant mother have higher odds of experiencing illness than other types of households. Migration of the mother alone is not common in the Thai context. Most mothers migrate alone if their husbands cannot earn enough or earning is not sufficient. Thus it may be that mother-migrant households have the worst economic situation before the mother migrates. There are several other potential explanations for one-parent migration and its negative impact on children's health. Households where the mother or father has migrated may have fewer family members and less time available to prepare nutritious, home-cooked meals. Previous studies also showed that children of absent parents do not receive required care and medicine on time and receive low quality food (Salah, 2008). The findings of this study are similar to those from China (Shen, et al., 2009) and Nairobi, Kenya (Konseiga, et al., 2009) which found that children of absent parents have more risk of injury and physical illness. While other important factors can mitigate the health problems of left-behind children, these may depend on characteristics of the primary care giver, which were not available in this survey. The result may also be affected by some reporting bias. Usually, grandparents are the respondents of households where both parents of children migrated. Grandparents or older generation household members may not consider common childhood illnesses as serious enough to report, so they may be underreported. In one-parent migrant households, one of the parents is the respondent, and may report common illnesses more frequently.

Our analysis found that some of the control variables such as age of children, ethnicity, household debt, sources of drinking water, and availability of a regular bus route in the village have a significant association with children's illness. Being in the youngest age group was also a significant risk factor for having an illness, which is consistent with other studies (Gordon et al., 2009; Neuzil, Wright, Mitchel, & Griffin, 2000). Children of Thai parents were more likely to have an illness than children of non-Thai parents. Children of non-Thai parents could be positively selective of in-migrants to the province, who are healthier. Another explanation could be that non-Thai parents did not perceive minor childhood illnesses as health

problems, so they did not report it as an illness. However, this finding also requires further investigation.

Regarding the source of drinking water, children who drink water from shallow wells or deep well were more likely to have an incidence of illness than those who drink water from the tap. This implies that water from shallow well and underground sources are lower quality than tap water which may cause digestive disorders. Interestingly, children from those villages where a bus route was available were less likely to have an incidence of illness than children from those villages where a bus route was not available. Having a bus route in the village may be a proxy for the level of village development. It could also indicate that migrant parents of children or relatives of children can visit left-behind children frequently, which can increase the monitoring or supervision by parents.

Our study has some limitations. First of all, the data are from a cross-sectional survey; all the factors analyzed in the study are measured at a single point in time. Therefore, the analysis can only provide evidence of statistical association between variables measuring the current status and the current physical health status of the children. Secondly, all of the information on children's health was gathered from caregivers or the head of the household. This may have resulted in reporting bias, such as under-reporting of stigmatizing behaviors (HIV/AIDS, TB etc.), or over-reporting of healthy behavior. However, to minimize reporting bias, questions were asked of the primary caregivers/household head in private settings, away from other people in the household. Furthermore, recall error about migration history or incidence of illness could be another limitation. We also need to be cautious in interpreting the results because information about health was a perceived or self-rated response. Finally, generalization of the results is limited because it was conducted only in one sampled province of Thailand.

In conclusion, a substantial percentage of Thai children are living separately from either one or both parents due to parental internal migration. While migrant workers play an important role in improving the country's economy, left behind children may face various negative consequences in the absence of their parent. Our study revealed that after controlling for other variables, parental (mother or father) migration was a risk factor for experiencing illness among children. The study suggests that strategies to alleviate the negative impact of parental migration as well as to maintain and enhance the well-being of the family, especially among the children left behind are warranted.

Our study contributes to the literature by comparing children with migrant parents and children living with parents, thus offering a more complete picture about the issues related to migration and health. The findings can be useful for policy makers and program planners to improve health and health services for Thai people, especially among the young population. Our findings will also be beneficial for governmental or non-governmental organizations and children's rights activists for designing and advocating appropriate interventions related to migration in Thailand.

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