Social Disparities and Incapability to Work Due to Illness or Disability among Working-Age Population in Thailand

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Abstract

This research aimed to determine the prevalence and investigate whether social economic factors were associated with incapability to work due to illness or disability among working-age population in Thailand. This cross-section study used the data from the National Labor Force Survey conducted by the National Statistical Office in 2015. The samples were Thai working aged people (aged 15 and 59 years old). The multilevel logistic regression analysis was performed to determine the relationships between socioeconomic factors and incapability to work due to illness or disability when controlling random variations among all provinces as well as other factors presented adjusted odds ratio and 95% confident intervals. 141,202 of respondents, 1.98% were incapability to work due to illness or disability. Factors associated with incapability to work due to illness or disability among them were male, single, household size of ≥4 persons and not head of the family, had low level of education and late adults. There were social disparities among those who incapability to work due to illness or disability. Systematically support for educations and job opportunities are needed organization necessary to paid on the prevention and

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Introduction

Human resource especially working age group is one of the driving forces of economic growth and social development in the country as well as family dependency and taking care of their family[1]. The country with more working age groups have higher potential for economic development. However, this strength could be hindered by incapability to work due to illness or disability. The International Classification of Functioning, Disability and Health defines disability as impairment status, limitation of physical activities and restriction of participation[2]. In addition, the International Classification of Impairments, Disabilities and Handicaps of the World Health Organization[3] offers the definition of disability in the context of health experience as any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being. Therefore, people with disabilities are more likely to be unemployed and generally earn less even when employed[4-9]. In addition, childhood disability face many challenges in life such as discrimination, limitation to access the social service, family life, child's development and economic impact[10].

In the aging labor force of industrialized countries, chronic diseases are becoming more prevalent as 37% of Dutch employees had a long-standing disease or handicap. While more than half of them stated they were not hampered in work performance, 41% were slightly hampered and 8% were severely hampered[11].The negative consequences of chronic illness cause of work limitation, work characteristics, and work adjustments.

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All of circumstances might be involved by health and sick leave[12]. As same as diabetes[13-15], cardiovascular disease[14,16], cancer[14,17], obesity[14], back or neck pain[14,18], Systemic Lupus Erythematosus (SLE)[19], mental health problems and chronic pain[20] were considered as prolong illness among them. Moreover, work disability in patients with SLE was associated in particular higher disease activity, presence of renal involvement and organ damage[19]. Previous studies reported factors associated with absence to work or disability were working hours, working place away from home, no autonomy in planning task as well as fatigue during working was one of the risk of sickness that lead to absence from wok or work disability[21].

Base on the National Statistic Survey, Thailand had 1.5 million or 2.2% people with disability. Approximately there were 29.84% of the persons not in labor force who absence from work due to illness or disability[1]. Generally, disability persons get good support in welfare from the government. However, monthly income from work was still limited in relation with their demands[22]. Even though they are importance for economic development, at present there are no comprehensive study on incapability to work due to illness or disability at the national level.

Objective

To determine prevalence and investigate factors associated with incapability to work due to illness or disability among working-age population in Thailand.

Method

Study design

This cross-sectional study used the data from The Labor Force Survey (LFS) of the National Statistical Office. This survey was conducted during the 1st -12th of July-September 2015. The multistage stratified random sampling was adopted for the survey. Provinces were constituted as strata-77 strata. The samples were head or member of 4,800 households in the Bangkok, 48,960 households in other municipal areas and 34,920 households in non-municipal areas, made up the total of 83,880 households throughout the kingdom that response to a structured questionnaire interview. The inclusion criteria to recruit the samples to this study were being a working age group (15-59 years old). There were total of 141,202 Thai working-age people were included to analyze.

Study outcome

The outcome variable was incapability to work due to illness or disability (yes/no). It was considered if people had not available for work because of physical or mental disability or chronic illness.

Data analysis

The independent variables were analyzed using descriptive statistics presenting percentage and mean, standard deviation, minimum and maximum. The magnitude and distribution of incapability to work due to illness or disability was analyzed presenting percentage and 95% confidence interval. The bivariate analysis was used to identify the association between each independent variable and the incapability to work due to illness or disability. The factors that bivariate analysis had p-value < 0.25 were taken into the multivariable analysis. According to the hierarchal structure of the LFS data, the multilevel logistic regression analysis was performed to determine the association of independent factors with incapability to work due to illness or disability when controlling random variations of all provinces in the country, presented adjusted odds ratio and 95% confident intervals.

Result

Among a total of 141,202 working age, 52.59% were female with the average age 38.69 years old. The highest proportion of the respondents had non to primary education, followed by secondary and post-secondary education. Most of them were married, more than half had 4 and more family members. Only one third of them were a head of family.

The prevalence of incapability to work due to illness or disability were 1.98% (95%CI 1.91- 2.05). The distribution of individuals who were incapability to work due to illness or disability were varied among regions. The highest prevalence was found in the North 2.47% (95%CI 2.30-2.65), followed by 2.27% (95%CI 2.12-2.43) in the Northeast, 1.78% (95%CI 1.65-1.90) in the Central & East and 1.54% (95%CI 1.39-1.70) in the South. The lowest proportion was found in Bangkok 1.18% (95%CI 0.93-1.43) (Fig.1).

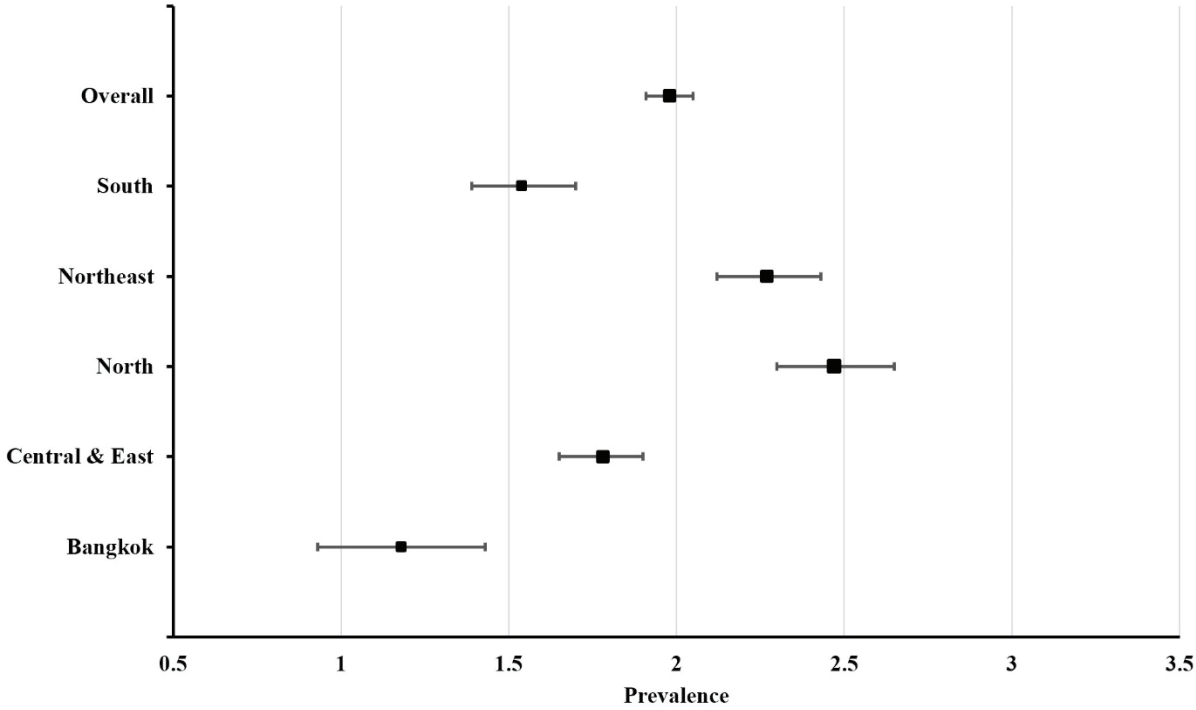

Figure1: Prevalence of incapability to work due to illness or disability among working-age people in Thailand in 2015

The multilevel logistic regression model indicated six factors that were significantly associated with incapability to work due to illness or disability among working-age people in Thailand. These factors were; had low level of education, single, late adults, not the head of his/her family, males, and family size of 4 people and more when controlling the effect of provinces. (Table 1).

Table 1: The multivariable analysis of factors associated with incapability to work due to illness or disability among working-age people in Thailand in 2015 using the multilevel logistic regression model presenting odds ratios, adjusted odds ratios, 95%CI and P-value.

Factors	Number	% incapable to work	OR	adj.OR	95%CI	P-value
Education level						<0.001
Bachelor's degree & higher	18,414	0.37	1			
Secondary & post-secondary school	59,765	0.97	2.63	3.65	2.82-4.71	
Primary school & no formal education	63,023	3.41	9.53	13.92	10.86-17.86	
Marital Status						<0.001
Married	93,099	1.01	1			
Single	37,533	3.94	4.04	12.28	11.11-13.58	
Widowed/Divorced/other	10,570	3.60	3.67	4.15	3.66-4.70	
Age group (years old)						<0.001
15-24	25,835	1.28	1			
25- 34	26,459	1.47	1.15	3.35	2.87-3.90	
35-44	34,148	1.81	1.42	4.81	4.16-5.79	
45-59	54,760	2.66	2.11	8.08	6.98-9.34	
Head of household						<0.001

Cont... **Table 1: The multivariable analysis of factors associated with incapability to work due to illness or disability among working-age people in Thailand in 2015 using the multilevel logistic regression model presenting odds ratios, adjusted odds ratios, 95%CI and P-value.**

Factors	Number	% incapable to work	OR	adj.OR	95%CI	P-value
Yes	47,548	1.42	1			
No	93,654	2.26	1.61	1.90	1.71 - 2.12	
Gender						<0.001
Female	74,260	1.55	1			
Male	66,942	2.46	1.60	1.54	1.41-1.68	
Number of household member (persons)						0.0047
1	7,560	2.00	1			
2-3	57,535	2.09	1.05	1.37	1.13-1.67	
≥4	76,107	1.89	0.95	1.37	1.12-1.67	
Region						0.4400
Bangkok	7,051	1.18	1	-		
North	29,228	2.47	2.12	-	1.69-2.67	
Northeast	36,667	2.27	1.95	-	1.55-2.45	
Central & East	43,384	1.78	1.51	-	1.20-1.90	
South	24,872	1.54	1.31	-	1.03-1.67	

Discussions

This study illustrated that almost 2% of working-age population in Thailand were incapability to work due to illness or disability. The proportion in the North and Northeast were higher than the national average of 1.98, whereas they were lower in the Central &East, the South and Bangkok. It might be there were more working age population from the North and Northeast migrated to work in Bangkok and Central & East as well as the South. Therefore, when they had illness or disability that mad them incapability to work, they moved back home[23]. This work-related illness has effect on the economy. The average income per capita of Thai per year was about ฿240,000. However, the income loss from incapability to work is about ฿22 billion/ month family[1, 24]

The result indicated that low educational attainment was strongly associated with incapability to work due to illness or disability. This finding was similar to study from National Health Interview Survey–Disability Supplement, USA which found that low education was one of the barriers to reach the market labor needed[25]. This could be said that in case of congenital disability interrupt the chance to study, therefore low education make them lose opportunity to find the job with high salary needed[25,26]. Being single was more incapability to work due to illness or disability by comparing with having partner. This finding is in line with a study showed the marital status influent on working disability benefits[27]. It might be explained that staying alone, if any accident occurs the length of absence from work or incapability to work take longer time than those who has someone taking care. Among working age group, late adult with older age had influence on incapability to work due to illness or disability. Our finding was similar with the result from a cohort study in conducted in Sweden[28] which showed that those with older age, low income, with previous sick leave, no employment and non-Swedish origin had higher risk of disability pension, while those younger groups had lower risk. Moreover, this study indicated the relationship between male gender on incapability to work due to illness or disability. This could be based on the fact male tends to take more dangerous task. In some case, they have gotten work-related injury but still continuing their job but unable to work as same as before[27, 29]. Living in a big family and not being a head of the family were also associated with the incapability to work due to illness or disability. The possible reason among those with congenital disability, they cannot be head of the

family and they need help from others therefore lived in a big family is necessary[25]. Especially in the context of Thailand, disability people who needs special care must live in the big family, therefore they can get assistants and care from their family members as well as from community and other relevant organizations[30-32].

Conclusion

Almost 2% of working age population in Thailand were incapability to work due to illness or disability. Social disparities were main factors influencing incapability to work due to illness or disability. The vulnerable group were male, low education, single, late adults, being family member and lived in a big family. There were in need for systematically support for educations and job opportunities. Occupational health and safety should be strengthening among working age groups. Education and job opportunity among genital abnormally should be systematically improved. Chronic degenerative disease such as diabetes and hypertension which will follow which complication which will put them to incapability to work due to illness or disability should be properly preventing and management.

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Conflict of Interest - Without

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