

# Occupational and Health Risks of Women Garment Workers in Cambodia's Garment Industry: Evidence from a Field Survey during COVID-19

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## Abstract

International trade agreements were linked to improving labor standard in garment sector in Cambodia. Workers in the garment sector are mostly female migrant workers from rural parts of the country. This paper aims to answer the following research questions: How has COVID-19 affected the right to health of garment workers in Cambodia? And what are the risk factors for such workers? A field survey with a sample of 316 workers using purposive and snowball methods was conducted between late October and mid-November through interviews using a questionnaire in three different regions: Phnom Penh, the provincial town of Takeo and two rural villages in Kdanh commune, Preykabass district of Takeo province. Cambodia's garment workers face a lot of occupational risks and health issues such as body pain after work, flu, and traffic related accidents in addition to sanitation related health problems. Our analysis of the health risks of garment workers using logistic regression suggests that buying lunch at the factory gate or outside, living in rented rooms and drinking alcohol were among the causes of falling sick.

**Index terms**— covid-19, garment sector, right to health, working conditions.

## 1 Introduction

The right to health is an inclusive right and is recognized as a human right in the 1966 International Covenant on Economic, Social and Cultural Rights. The right to health is not only associated with access to health-care and the building of hospitals, but also with the underlying determinants of health, including safe drinking water and adequate sanitation, safe food, adequate nutrition and housing, healthy working and environmental conditions, health-related education and information, and gender equality (OHCHR & WHO 2008). Recent data from the National Social Security Fund (NSSF) suggests that the total number of garment and footwear enterprises and establishments in Cambodia in 2017 was 1,021 and the total number of workers was 696,554, of whom 82% were female (National Social Security Fund (NSSF) 2017). The export value of the sector accounted for about 80% of the total export value of the national economy. International trade agreements were used to improve labor standards.

Garment workers have limited health insurance. A National Social Security Fund (NSSF) provides them with an occupational insurance scheme and a health insurance scheme. The National Social Security Fund (NSSF) is an organization responsible for providing the basic social security to the workers in the private sector only in its initial stage of development. Later in 2018, NSSF expanded its coverage to civil servants, veterans and ex-civil servants. NSSF is under the directive of Ministry of Labour and Vocational Training and Ministry of Economy and Finance. NSSF has three insurance schemes: occupational insurance, health insurance and pension. Currently, NSSF implemented two schemes occupational insurance scheme and health insurance scheme. Health-care services in Cambodia are provided by both the public and private sectors, largely by the latter in recent years. As of 31 December 2018, the number of private health facilities was 12,785 as opposed to 1,457 public health facilities (MoH's annual report 2018).

The occupational insurance insures workers against commute accident, workplace accident and occupational disease. The coverage of occupational insurance scheme has expanded remarkably since the initial launch in November 2008. Enterprise/ establishment with 8 workers or more are compulsory to register with and pay contribution to NSSF. Fainting and traffic accidents have been the main occupational risks for garment workers in recent years. Thousands of Cambodians died every year in traffic accidents. According to data for nationwide traffic accidents from the Ministry of Interior, from 11 November 2015 to 10 November 2016 there were 4,029 accidents and 1,926 deaths, and from 11 November 2016 to 11 November 2017, 3,815 accidents and 1,913 deaths. The causes of traffic accidents among workers included speeding, mechanical failure, dangerous overtaking, failure to observe the right of way rules, drunk driving, failure to observe the right-hand priority and bad road surfaces. Among garment and footwear workers, there were 4,451 traffic accidents and 43 deaths over the period from 1 January to 10 December 2016 (Report on annual achievements 2016 and action plans of the road traffic safety team for workers' protection, NSSF).

Health insurance scheme under NSSF was developed from health insurance project of NGOs. This paper aims to answer the following research questions: (1) how was the right to health of garment workers in Cambodia during COVID-19? And (2) what are the determinants of workers' health? In addressing these questions, a field survey of garment workers in three different regions: Phnom Penh, the provincial town of Takeo to the south and two nearby rural villages, was conducted from the end of October to mid-November 2020 about their perceptions regarding the right to health. The findings of the research are intended to provide some inputs for policy-makers and development partners in improving the health-care of garment workers, as well as other low-income groups in Cambodian society.

## 2 II.

### 3 Research Methodology

A field survey of 316 garment workers was conducted between late October and mid-November through interviews using a questionnaire in three different regions: Phnom Penh, the provincial town of Takeo and two rural villages in Kdanh commune, Preykabass district of Takeo province. Our surveyors wore masks while interviewing workers, but some of their respondents did not. All the interviewed workers were still working in garment factories, but some of them had had their jobs suspended. Purposive and snowball sampling methods were used. After collecting data using hard-copy questionnaires, a Google form was used for data entry. The traditional work of the women the two sample villages is weaving traditional silk skirts, but the arrival of the garment manufacturer has attracted some of weavers to abandon this work. In addition to the primary data we collected, this research also uses secondary data from various sources such as the World Bank and previous research about the garment sector in Cambodia. Logistic regression technique was also performed to analyse the risk factors that affect the health of garment workers using the survey data.

## 4 III.

### 5 Survey Results

#### 6 a) Profile of workers

This section and the subsequent ones use our primary survey data to explore the right to health and the working conditions of garment workers during COVID-19. The survey data are also used to analyze the health risks for workers. The total number of interviewees was 316, as shown in Table 1. The majority of respondents were female workers, representing 88% of total respondents. The majority of the garment workers were young and have low levels of education. About 76% of all respondents were below the age of thirty. 98% of respondents in Phnom Penh lived in rented houses or rooms, being migrant workers from rural parts of the country. Most of the workers who work in factories in Takeo, however (68.6%), were living in their own houses, though 29.4% were renting houses or rooms. All the village workers lived in their own houses, but it took them a long time to commute to work.

#### 7 b) COVID-19 and Garment Workers' Living Conditions

The majority of workers who continued to work in garment factories during the pandemic said their working conditions had become worse and that their working hours had been reduced. Social distancing was not widely applied by workers in their workplaces as protection against COVID-19, though wearing face masks and washing hands with alcohol fluid and soap were widely practiced. Of the total respondents, 97% of workers reported they wore masks, 88% washed their hands with alcohol fluid or soap, 28.6% maintained social distancing, and 1% used other measures. COVID-19 reduced the gross salaries of some workers in each survey site. On average workers earned about 13% less during the pandemic than before it: the average gross salary before COVID-19 was USD 266, while during COVID-19 it fell to USD 236, a decline found in each survey site. As announced by the Ministry of Labour and Vocational Training (MoLVT), some factories closed during COVID-19 and suspended their workers for a period of time. Cambodia introduced digital cash transfers for suspended workers in the

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garment sector. The Ministry of Labour and Vocational Training announced it would provide an allowance of USD 40 a month to each suspended worker plus another USD 30 coming from the factory owners.

## 8 c) Occupational Risks

From our survey, we found that 55.5% of respondents in the three survey sites commuted to work on foot, 23% by truck, 13.8% on their own motorcycles, 7.1% by bicycle, and 0.6% by Romork (a long cart pulled by a motorcycle). Many workers who lived in Phnom Penh (74%) commuted to work on foot because they rented houses and rooms located close to their places of work. Workers in the two rural villages normally commuted to work in factories in towns by truck, waking up early in the morning to take the truck and returning to stay in their own homes in their villages the same day. According to one worker in Preychambak village who commutes to work in a shoe factory in Kandal province near Phnom Penh, workers paid a fare of between USD 13 and USD 17 per person per month, depending on the location of their factories. It normally took about an hour and forty minutes to commute one way from her village to her shoe factory. In contrast to the village workers, about half of the workers in Takeo town (43%) used their own motorcycles to commute to work, followed by those who travelled by truck (30%).

The majority of workers considered commuting to work safe. In response to our question, "Do you agree that commuting to work is safe?" 74% agreed it was, 15.2% disagreed, and the remainder said they did not know. Figure 1 gives responses to questions related to the occupational risks. Strikingly, 25.8% of respondents said they had asked to go on sick leave, and 43.7% said they had gone to buy medicines or to have their health checked in the past three months. This information on workers' health issues showed that a large proportion of them needed to buy medicines or have their health checked.

A good work-place environment is very important for the workers' health. Although most workers said their factories had enough clean and hygienic toilets, noise and chemicals were present in the factory. More than 80% of respondents said their factories had sufficient clean toilets for the workers. However, about half said their work-places were noisy and smelled of chemicals. Sickness or falling unconscious was often witnessed by workers in factories. In response to the question, "Have you ever witnessed workers falling unconscious in recent months in their factories", 75.5% said they had never witnessed this, while 24.5% said they had. Similarly, in response to the question, "Have you ever seen sick workers in their factories recently", 43.7% said they had, and 56.3% that they never had. When asked whether they had ever seen workers suffering accidents while doing their work, 41% said they had and 59% that they never had.

## 9 d) Food and Accommodation

The choice of foods to consume can also affect the health of workers. Foods sold at the factory gate were not hygienic enough to support good health. Workers can alternatively choose to cook a meal themselves and bring it to the factory to eat or buy food in the factory's cafeteria. However, very few of our respondents said they bought food in a cafeteria, as most factories do not have one. Questions regarding their choice of breakfast, lunch and dinner were asked in order to determine whether there is any relationship between choice of meal and workers' health. In general about half of the workers in Takeo town and Phnom Penh bought breakfast (43%) and lunch at the factory gate (48.7%). Very few workers obtained their breakfast from the factory. Most factories provided facilities for workers to eat their meals but did not provide meals. In contrast to breakfast and lunch, almost all workers, regardless of survey site, cooked their own dinners.

About 98% of workers in Phnom Penh live in rented houses or rooms. Most of them shared rooms to reduce the rent that each person pays. In Phnom Penh, of those who rented a room or house, 16% lived alone, 44% shared with another person, 31% shared with two other persons, and 9% lived in shared room of more than four persons. Only about 30% of workers in Takeo town rent accommodation. Naturally the workers living in the villages live in their own homes, but they become exhausted having to commute about three hours every day for the round trip. Normally a rented room has a toilet inside but no kitchen. Workers therefore bought gas stoves to be able to cook in their rooms. The low return on renting a room probably does not provide enough incentive for owners to make changes such as installing sufficient and sufficiently good equipment for the workers who live there. The average rental fee paid by a worker in Phnom Penh was almost twice that in Takeo town. An average worker in Phnom Penh paid 24 USD a month, while a worker in Takeo town paid 14 USD a month.

## 10 e) Health Issues

Although one of every four garment workers had asked to go on sick leave in the past three months, the majority of respondents bought medicines or went to hospital because of health issues in that period. Private health facilities are the main providers of health-care services to garment workers. In the past three months, as shown in Figure ??, 25.8% of respondents had asked to go on sick leave, while 74.2% had never asked to do so. Private hospital, clinics and private pharmacies were the main providers of health-care services to garment workers in Cambodia. Of those who bought medicines or went to hospital, 37% went to private pharmacies, 24% to private hospitals or clinics, 25% to health centers, 12% to a public hospital, and the remaining 2% to an NGO-sponsored hospital. Public hospitals therefore played a less important role in providing health-care to garment workers than private health facilities.

## 11 Figure 2: Seeking Health Care and Health Services Providers

Body pain, headaches, having a cold and feeling dizzy were common health issues among garment workers during the survey period. The majority of workers had body pain after working the whole day in the garment factory. As shown in Figure 3, 71.8% of respondents said they had body pain, while 28% did not. Of the 244 respondents who reported body pain, 52% had headaches, 36% had pains in the neck or back, 30.7% the in legs, 26.2% in the arms, 7.4% in the eyes, and 11.9% in other parts of the body. In addition to body pain, common health issues among workers include fever, diarrhoea, headaches, dizziness and colds. In response to the question, "Have you ever had the following health issues?", of the total respondents shown in Figure ??, 27% responded that they had not had any health problems in the past three months, while 41% had caught a cold, 37% had a headache, 19 % felt dizzy, 14% had fever, and 7% had diarrhoea.

Regarding alcohol and tobacco consumption, we find that almost all workers in the samples did not smoke, though some of them drank alcohol. Of the total number of respondents, 2.5% said they had smoked in the past month and 15.1% that they had drunk some alcohol. To quantify the volume of alcohol consumption, we ask workers how often they had drunk in the past month. 2% said they drank every day, 5.7% a few times a week, 28.3% once a week, 15.1% a few times a month, and 49.1% once a month.

## 12 Figure 4: Some Health Issues

Of the total number of respondents, 55.6% said they paid for health services, while 44.4% received health services for free. Almost all the workers in our samples, 91%, have a National Social Security Fund (NSSF) card allowing them free health-care. Asked how easy it is to use the NSSF card, 4.2% said it was very easy to use, 16.4% moderately easy, 55% easy, 14.5% difficult, and 10% very difficult. When asked how often workers used the card, about 80% of all respondents said they did not use it very often. Some workers told us that for minor illness they went to a hospital nearby for treatment because they heard that using the NSSF card was time-consuming, and the doctors there did not take as much care of them as in a private hospital.

## 13 f) Health Risks

In this section, we examine the risk factors associated with garment workers' health. We examine the factors that caused workers to (1) buy medicine or go to hospital, and (2) ask for sick leave in the past three months. In our survey we found that 26% of respondents had asked for sick leave and 55% had gone to buy medicines or visited a hospital in the past three months. Factors that may affect the health of workers include whether they are male or female, their age, marital status, education, experience of working in a garment factory, working environment and conditions, drinking or smoking habits and choice of meals. A large proportion of workers choose to buy breakfast and lunch at the factory gates or elsewhere outside, meals that lack sanitation and hygiene.

Logistic regression was performed to investigate the determinants of buying medicine or visiting hospital recently. Column 1 Table 2 reports the result of the logistic regression when the dependent variable is a dummy variable taking the value of 1 if the respondent went to buy medicines or went to hospital recently. The result suggests that female workers, older workers and workers who eat dinner or breakfast outside the factory tend to be significantly less likely to seek medical care than male workers, younger workers, or workers who eat their own cooked breakfast or dinner. However, married workers, workers living in rented rooms or houses, workers who said their workplace was noisy and workers who buy their lunch at the factory gates or outside are more likely to seek medical care by going to buy medicines from pharmacies or going to hospital. These results are consistent with the evidence that shared rented rooms and food sold at the factory gate are not sufficiently hygienic and lack adequate sanitation. Workers who drink, smoke, or work in factories with the smell of chemicals are also more likely to seek medical services than workers who do not drink or smoke, or who work in a factory without the smell of chemicals.

Logistic regression was also performed to investigate the determinants of asking for sick leave. Column 2 of Table 2 reports the result of the logistic regression when the dependent variable is a dummy variable taking the value of 1 if the respondent asked for sick leave in the past month. The results suggest that older workers are more likely to ask for sick leave than younger workers. However, married workers, workers living in rented rooms or houses, workers who said their work-place was noisy and workers who drink are more likely to seek sick leave. Conversely, workers who buy their lunch at the factory gate or outside are not more likely to seek sick leave. IV.

## 14 Conclusions

Despite the relatively few COVID-19 cases recorded in Cambodia, COVID-19 hit the Cambodian economy hard, particularly the garment and tourism sector, the main pillars of the economy. Due to the low number of COVID-19 cases, the hospitals were not overcrowded and could still function. Nonpharmaceutical interventions were used to contain the spread of the virus, while cash allowance programs were used to compensate suspended workers in the garment sector. The great majority of workers prevented COVID19 spreading through frequent hand-washing or using a face mask, but the majority were not socially distancing. The pandemic reduced the incomes of those garment workers who were still working, probably because of the reduction in overtime. As the fall in income

was considered likely to be temporary, this may have had few effects on expenditure for consumption, which is believed to depend largely on having a permanent income. Nonetheless the increase in the cost of living during the pandemic seems to have reduced purchasing power somewhat. Although the minimum wage for workers has continued to increase in recent years, workers still faced some health issues, such as fainting, diarrhoea, body pain after work, colds and fever. During COVID-19, workers had some health problems such as body pain, and we uncovered evidence of their buying medicines and seeking healthcare in the past three months. Our analysis of the health risks of garment workers using logistic regression suggests that buying lunch at the factory gate or outside, living in rented rooms and drinking alcohol were among the causes of falling sick. The welfare of workers can be improved by improving the sanitation and hygiene of foodstuffs and rented rooms, for example, by providing more training in how to live better, asking one's landlord to provide enough cooking facilities or improving the space of rented rooms. Policies to improve rented housing for garment workers and food safety are recommended. After the outbreak of COVID-19, Cambodia signed a free trade agreement (FTA) in the region with China and the Regional Comprehensive Economic Partnership (RCEP).

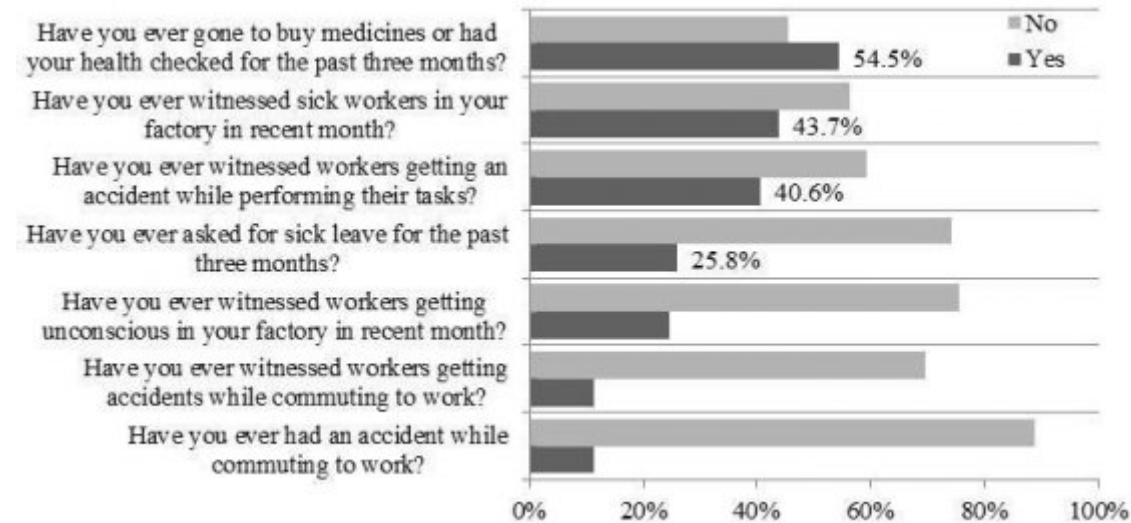


Figure 1: Figure 1 :

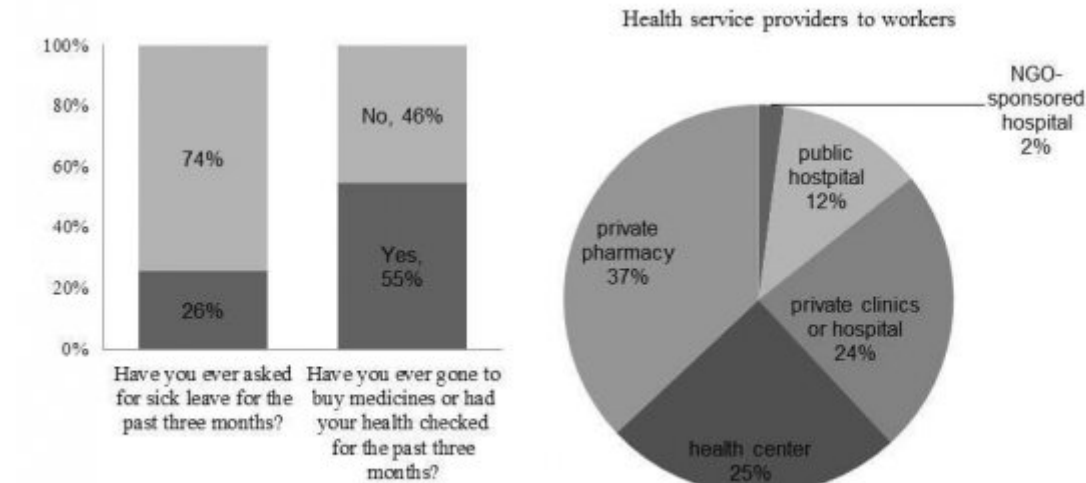


Figure 2: Figure 3 :

All employers or owners of enterprises/establishments shall be compulsory to collect contribution and pay contribution to NSSF. Contribution rate of employers or owners of enterprises/establishments is equal to 1.3% and of workers is equal to 1.3% of average wage in the classification of workers' monthly wage. In the past the health issues of garment workers were associated with a lack of nutrition, a poor work-place environment and the failure of workers to practice hygiene (World Bank 2006, Chandararoth et al. 2009, BDLINK & HRINC 2011, Mukarat et al. 2018). Jameel et al. (2019) argued that although many factories were compliant with legislation on maternity leave, breastfeeding and child-care arrangements, breastfeeding and antenatal (ANC) services were under-used, resulting in poor child nutrition.

Figure 3:

1

N	Percent
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Figure 4: Table 1 :

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(1)	(2)
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Figure 5: Table 2 :

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