



Research article

The social impact of the COVID-19 outbreak on urban slums and the response of civil society organisations: A case study in Bangkok, Thailand

Suladda Pongutta^{a,b,*}, Kanang Kantamaturapoj^c, Kannapon Phakdeesettakun^d, Payao Phonsuk^d^a International Health Policy Programme, Tiwanon Rd, Muang, Nonthaburi, 11000, Thailand^b London School of Hygiene and Tropical Medicine, Keppel St, Bloomsbury, London, WC1E7HT, UK^c Faculty of Social Sciences and Humanities, Mahidol University, Thailand^d International Health Policy Programme, Nonthaburi, Thailand

HIGHLIGHTS

- COVID-19 forced Bangkok slums residents to live below the subsistence level in a range of ways.
- Social exclusion prevents the slum residents from benefitting from social protection.
- CSOs played an important role in relieving suffering among Bangkok slums.
- A holistic approach should be implemented to combat the impacts of Covid-19, in order to mitigate suffering in slums.
- It is crucial to find the balance between health and economy in addressing the COVID-19 pandemic.

ARTICLE INFO

Keywords:

COVID-19

Social impact

Urban slum

Civil society organisation

ABSTRACT

This study examined the social impact of the COVID-19 outbreak on Bangkok slum residents and the initiatives of Civil Society Organisations (CSOs) to relieve negative impacts.

A mixed-methods study was conducted based on the Social Impact framework. In June 2020, a cross-sectional survey was carried out among 900 participants from nine slums in different zones of Bangkok. In July 2020, semi-structured interviews were conducted with 19 slum residents and four CSOs to gain in-depth information on the social impact of COVID-19 and CSOs' response.

Out of 900 participants, 25.9% lost their jobs during the lockdown and 52.7% lost their income. The job and income loss increased the poverty rate within the participants from 51.6% to 91.7%. Participants limited their mobility and social activities during the lockdown. Stress was increased among 42.6% of all participants and the increased stress was associated with both income loss and self-quarantine. Due to financial constraints, a significant proportion of participants had to limit their food consumption and/or their consumption of nutritious but more expensive food. Almost one-tenth of the participants relied on donated food only. The majority of the participants (61.1%) could not access the income compensation scheme. COVID-19 forced Bangkok slums residents to live below the subsistence level in multiple ways with limited access to social protections. CSOs played an important role in relieving the suffering by providing food, survival kits, jobs, and access to COVID-19 test. Their agility, skills and knowledge about slums, and social capital enabled a rapid response to the crisis.

Experienced local CSOs should be engaged as a bridge between urban slums and social protections. A holistic approach to combatting the COVID-19 crisis should be implemented. It is important to find the balance between preventing death from the virus and preventing suffering and death from an economic crisis.

1. Introduction

COVID-19 is an emerging highly contagious disease, which is currently a great threat to public health [1]. To control the disease, many

countries have implemented disruptive interventions, including lockdowns and social distancing campaigns [2]. The pandemic itself and governments' responses have affected people's lives in several ways. For example, psychological distress was unusually prevalent in the United

* Corresponding author.

E-mail address: suladda@ihpp.thaigov.net (S. Pongutta).<https://doi.org/10.1016/j.heliyon.2021.e07161>

Received 12 December 2020; Received in revised form 18 May 2021; Accepted 25 May 2021

2405-8440/© 2021 The Author(s). Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Kingdom during the COVID-19 epidemic [3]. The economy and the agricultural food system in China were significantly affected by COVID-19 in the lockdown phase [4]. Also, the pandemic prevented youth in 112 countries from accessing quality education, both physically and financially [5].

Slums are widely perceived as “a wide range of low-income settlements and/or with poor human living conditions” (6). People living in urban slums usually live with these following conditions: socio-economic vulnerability, limited access to social welfare and public facilities, poor housing, unsafe and overcrowded neighbourhoods, risky and/or polluted environments [6]. These conditions prevent residents from having a good life in a normal situation. When affected by crises, including the COVID-19 pandemic, they are likely to suffer even more and be affected harder than better-off people due to their vulnerability. Also, we must note, the ability for slum residents to comply with rules and laws during such crises is much curtailed compared to wealthier city areas. For example, a study in India confirmed that social distancing among the urban poor in slums is impossible [7].

Thailand was first affected by the COVID-19 outbreak in January 2020. The first wave of the COVID-19 outbreak in Thailand has come to an end in June 2020 when local transmission was no longer detected [8]. The country has confronted with the second wave of pandemic in December 2020; then the third wave in April 2021. As of now (17th May, 2021), there are 111,082 confirmed cases, 614 deaths, and 43,268 cases hospitalised [8]. The Thai government had implemented diverse interventions to control the disease including 1) business and school closures and social distancing from late March to early May, 2) a nighttime curfew from early April to mid-June, 3) 14-day quarantine and medical certification requirement for international arrivals, 4) partial restrictions of international flight from April to July, 5) free tests for suspected cases, free treatment, and active disease surveillance [8].

Despite having relatively low numbers of COVID-19 cases, Thailand has been facing a huge economic crisis since the lockdown began. The World Bank estimated that the Thai economy could shrink by at least 5% and approximately 9.7 million people are likely to live below the poverty line in the second quarter of 2020 [9]. Social protection programmes started in April in order to relieve the economic impact such as discounted electricity and water bills, income-loss compensation (70% of current salary for 6 months for those who are covered under the social security scheme and around USD160/month for three months for those who are not covered), and low-interest loans [10]. The programmes' operations were criticised as inefficient in terms of coverage and approach. A survey reported that 88% of target groups did not receive any public assistance after two to three weeks of lockdown [11]. The crisis and delayed support may affect poor people's lives greatly.

Bangkok slums are urban slums located in the capital city of Thailand. In 2018, approximately 579,630 people living in Bangkok slums accounted for 29% of people living in Bangkok [12]. Given their living conditions and limited access to public services, they are vulnerable to the COVID-19 crisis. However, they have been supported by local CSOs since the beginning of the crisis. This study aims to explore the social impact of the COVID-19 outbreak on vulnerable urban slums and CSOs' initiatives to relieve the impact.

2. Methods

The COVID-19 outbreak is detrimental to not only health as a disease but also other aspects of life as consequences of measures implemented to control the disease. To capture the breadth and complexity of the impact, the Social Impact Assessment principle (SIA) [13] was adapted as a framework to guide both quantitative and qualitative studies. This principle is most suitable compared to other existing impact assessment frameworks because it considers a broad range of social issues that affect people in multiple dimensions, directly or indirectly, as consequences of policy interventions. With this approach, this study covered a comprehensive range of social impacts, which consisted of studying people's

ways of life, the community impacts, the influences of the political system, health and well-being, economic impacts, as well as fears and aspirations (see Figure 1).

This study used a mixed-methods design. In June 2020 when local transmission was no longer detected, a cross-sectional study was carried out with 900 adults living in 9 slums in inner Bangkok, the capital city of Thailand. This area has three zones, and three slums were randomly selected from each zone. There were challenges in sampling individuals because of the density and the lack of demographic and housing data of the slums. Therefore, official leaders of the selected slums were involved to facilitate the sampling and the data collection. In each slum, the slum leader identified 100 participants from 100 families living in different shelters away from each other. The participants were asked to complete semi-structured questionnaires reporting their socio-demographic, income and employment status (prior to, during, and after lockdown), health service accessibility and quality during the lockdown, and personal hygiene in relation to the outbreak) and participation in political systems, health and well-being (e.g. availability and consumption of different types of food prior to and during the lockdown, and mental health prior to and during lockdown. The questionnaires were obtained from two sources. Firstly, a validated questionnaire used by the National Statistical Office of Thailand [14] to assess multiple impacts of a great nationwide flood that lasted up to two months in some places, which include income and employment status, health service accessibility and quality, and food availability and consumption. Secondly, a validated ST-5 questionnaire, which is a stress screening test for Thai people [15]. This questionnaire assesses the frequency of having each of the following symptoms: insomnia, poor concentration, anxiety, boredom, and social isolation per month. The stress scores converted from the frequency of having the symptoms were divided into 'no symptom', 'mild stress', 'moderate stress', and extreme stress', using cutoff points. A quantitative data analysis was conducted using STATA12. Descriptive analysis was used to describe the participants' characteristics. Multiple logistic regression analysis was used to examine the associations between increased stress during the lockdown and economic impact adjusted for age, gender, family size, and self-quarantine.

In terms of a qualitative study, two slums were selected from the nine sampled slums as case studies. One slum was a small slum (<1,000 people) supported by only one civil society organisation (CSO), while another is a well-known large slum (>10,000 people) nearby the Bangkok Port supported by several CSOs. Semi-structured interviews were carried out based on the framework developed for this study, in July 2020, with 23 participants comprising of 11 people from the small slum, 8 people from the large slum, and 4 representatives of local CSOs. The CSOs were selected based on their unique approaches in providing assistance. The interviews were audiotaped, and transcribed, and manually coded. The framework matrix was developed from the Social Impact Assessment principle. The process of coding and framework matrix generation were checked and approved by the research team. Data were mapped into the framework matrix to analyse the social impacts of COVID-19 outbreak in urban slum.

This study received ethical clearance from the Institute for the Development of Human Research Protection, COA No. IHRP055-2563 (dated 20th April 2020). Informed consent was obtained from all participants.

3. Results

3.1. Participants' characteristics

Table 1 shows the sociodemographic characteristics of the participants of the cross-sectional study. In total, 900 samples participated in the cross-sectional study. The average age was 50 (± 14.9) years old

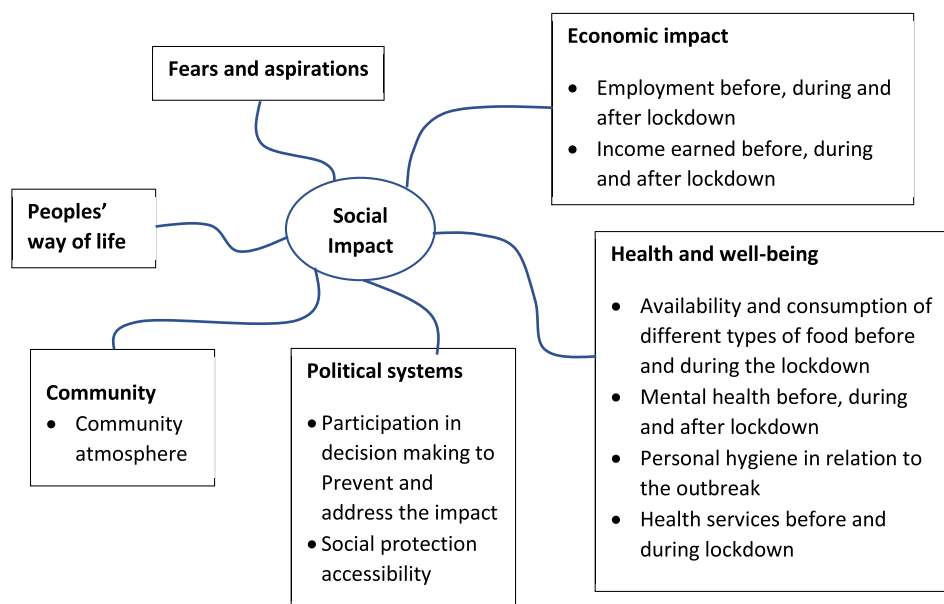


Figure 1. Conceptual framework of this study adapted from the Social Impact principle [14].

and 68.2% were female. The majority were hired daily or were blue-collar workers (46.2%) and vendors or small enterprise owners (26.7). Of the total, 74.3% did not finish secondary education so 48.4% of them earned less than the upper-middle-income poverty line (USD5.5/day). Nineteen adults living in the slums who participated in the qualitative study were female. These participants were 3 daily hire employees (a housemade:PAR#1, a masseuse:PAR#2 and a car park ticket seller in a supermarket:PAR#3), 2 employees of private company (a hotel maid:PAR#4 and a sales assistant:PAR#5), 5 community food vendors (PAR#6,7,8,9,10), 6 workers at wet market vendors (PAR#11,12,13,14,15,16), an internet café owner (PAR#17), and 2 retirees (PAR#18,19). The CSO representatives were heads or senior staff of the organisations. The CSOs have been working for over 7 years in the following areas: arts and music for youth (PAR#20), cultural conservation and tourism (PAR#21), children and poverty (PAR#22), and children and education (PAR#23).

3.2. Economic impact

This study found that slum members were affected by economic impact. Of the total, 233 participants (25.9% of the total) lost their jobs

during the lockdown (see Table2). Most affected occupations were daily hired employees (35.8% of all daily hire employees) vendors or small enterprise owners (26.7% vendors or small enterprise owners) and private company employees (11.7% of private company employees). In terms of income loss, 52.7% were affected and among these 27.7% lost more than half of all their income. The job and income loss increased the poverty rate from 51.6% to 91.7%. Seven key informants of the qualitative study also confirmed that those who were not poor before can become vulnerable in this situation. (PAR#2,5,6,11,19,20,22).

“I live with my mother. She is very old and is unable to remember things or process what is going on. My son just came to live with us a few days ago because he lost his job. He worked as a daily hire staff at a garage. I am a masseuse. The massage shop has been closed for a couple months because of COVID-19. I used to work and got paid every day, but things have changed, I have not had income since the shop was closed. ...I borrow money from my relatives and my neighbors. The owner of the house let us live for free and I do not have to pay for running water.... We find it difficult to manage to buy food. People come to provide food to the slum residents quite often and we live mainly on that food”. (PAR#2)

Table 1. Sociodemographic characteristics of the participants.

Characteristics	Number (%) N = 900
Gender	
Female	614 (68.2)
Male	281 (31.2)
Education	
Primary school	481 (53.4)
High school	317 (35.2)
Higher education	102 (11.3)
Economic status	
Poor (earned less than upper-middle-income poverty line or USD5.5/day)	463 (51.6)
Occupation	
Small enterprise owner	240 (26.7)
Daily hire employee	416 (46.2)
Private business employee	144 (16.0)
Others	100 (11.1)

Table 2. Selected social impact of the COVID-19 outbreak and social impact on the participants.

Selected social impact	Small enterprise owner N = 240 Number (%)	Daily hire employee N = 416 Number (%)	Private business employee N = 145 Number (%)	Others N = 99 Number (%)	Total N = 900
Economic impact					
Income loss	171 (71.3)	274 (65.9)	63 (43.4)	19 (19.2)	527 (58.6)
Unemployed	64 (26.7)	149 (35.8)	17 (11.7)	3 (3.0)	233 (25.9)
Poor	227 (94.6)	391 (94.0)	117 (80.7)	90 (90.9)	825 (91.7)
Food consumption behavior					
Hungry but did not eat due to economic constraints	108 (45.0)	240 (57.7)	64 (44.1)	55 (55.6)	467 (51.9)
Eat less due to economic constraints	149 (62.1)	256 (61.5)	96 (66.2)	55 (55.6)	556 (61.8)
Consumed less meat, aquatic food, fruit, or vegetables	192 (80.0)	343 (82.5)	119 (82.1)	67 (67.7)	721 (80.1)
Mental health					
Not affected	135 (56.3)	231 (55.5)	76 (52.4)	75 (75.8)	517 (57.4)
Stress increased 1 level	59 (24.6)	112 (26.9)	46 (31.7)	17 (17.2)	234 (26.0)
Stress increased 2 levels	33 (13.8)	51 (12.3)	14 (9.7)	6 (6.1)	104 (11.6)
Stress increased 3 levels	13 (5.4)	22 (5.3)	9 (6.2)	1 (1.0)	45 (5.0)

"I work at a supermarket. I am a daily hire staff (Bangkok's minimum daily wage). I used to work 6 days a week. Because of COVID-19, the supermarket close earlier than before and it is not as busy as it used to be, so they hire fewer staff. Now, I work 3 days a week. It is not enough for our family. I live with my parents and my two little children. I and my father work, but we both earn less. What I am most worried about is my children. Adults can fast, but children cannot. I get informal loans sometimes. I know, the interest rate of informal loan is much higher than the interest rate of the bank, but how I can get a loan from the bank? I do not know if I can pay the loan or not, all I know is now we need money. What we do now is eat less, pay less, and hope to get back to normal soon." (PAR#3)

"I have witnessed how the poor and middle-class people in slums went through this crisis. I found that poor people adapt to this better than those who used to have secured jobs. The poor do not have big loans and do not feel hesitant to find help which is opposite to the middle-class. When there is an economic crisis, people are always concerned about the known poor but not the new poor". (PAR#20).

"My husband has been a driver working for a transnational company for a very long time, so his salary was high enough to raise our children (2 and 6 years old). Currently, he is asked to stay at home most of the time and now he earns less than half of his income. My food vendor is not going well and even loses money sometimes. Our income is not enough to pay for our car loan. We tried to get a bank loan, but we were declined." (PAR#6).

3.3. People's way of life

People's way of life is how people live, work, and interact with one another in everyday life [13]. During the COVID-19 pandemic, people's way of life has been disrupted by government measures such as social isolation and travel restrictions during lockdown. The quantitative findings showed that 57.5% of the participants stayed at home sometimes and 34.7% stayed at home throughout the 1.5-month lockdown. Not all self-quarantine was voluntary since 29.4% of the total were forced to stay at home due to job loss.

The findings from the qualitative study revealed how these social interventions changed lifestyles through work status and financial constraints. All respondents in slums reported that sudden unemployment or income decrease, with not much or no financial savings forced them to spend as little as possible on travel, clothes, and food (PAR#1-19).

"People buy ready-to-eat food less. Maybe they want to save money or do not have enough money." (PAR#6).

"We cannot afford to raise our children anymore, so we sent them back to live with my parents in the countryside." (PAR#6).

"We cut all unnecessary expenditures such as new cloths and expensive food." (PAR#3).

"They close all small markets nearby, so we have to go farther to the wet market. I do not go to the wet market that often because I want to save transportation cost. (PAR#2).

The nighttime curfew enforced 24-hour wet markets to close at night and nightshift vendors encountered a sudden job loss (PAR#11,12,13,14). Some of the dayshift vendors had to reduce the scale of their business or close because restaurants, their main clients, were closed and restricted (PAR#11,12,13,14,15,16). This phenomenon also affected farmers or suppliers because the markets ordered less produce (PAR#6,11,12,23). Community street food vendors also scaled down or closed their businesses due to the reduction of customers (PAR#6,7,8,9,10). They assumed that the customer loss was due to the night curfew (shortened opening time), household financial constraints due to unemployment, and food received from donors (PAR#6,7,8,9,10). The school shutdown isolated children from schools services and social interactions (PAR#6,7,17,22,23). Although online courses were provided during the shutdown, children were not able to access the services because their families could not afford electronic devices and internet connection. Also, parents could not leave young children at home to find jobs.

"My cousin has stopped working because her fresh seafood vendor opened at night. My vendor is still open because it is open daytime.....I order fresh seafood less because seafood restaurants (her clients) were closed. I stop hiring staff and run the vendor by my own to cut cost." (PAR#11).

"At schools, children are stimulated with various activities and they learn how to socialize and be nice to other students. They cannot find this environment at home..... We go visit our students at home sometimes. We can see that their capabilities to read and comprehend a book have been decreased." (PAR#22).

"In my family, there are 4 students. My sisters and brothers are enrolled in primary school. They are in different grades. I am a college students. We do not have enough electronic devices to study so we just skip classes. We need one for each of us. (PAR#9).

"My son has become addicted to computer games because he is stuck in the house with the computer...He has no other kids to play with." (PAR#17).

3.4. Community

The social impact on the community included the change of cohesion, stability, character, services and facilities in the community [13]. This study found that the social cohesion decreased because community members avoided interactions and group activities were abolished (PAR#1-19).

“Before the outbreak, my neighbors came to have barbecues and papaya salad with me every weekend. Now, we stay away from each other. The slum is so quiet now” (PAR#19).

Many groups of outsiders came to provide assistance, such as ready-to-eat food and survival bags containing packaged food, uncooked rice, and other necessary items. Social stability reduced since there were conflicts due to inequalities in receiving assistance (PAR#6,8,9,19,20). This was because the assistance was provided to owners of shelters in the areas, while there were many families renting shelters who were also affected but did not receive support. Furthermore, the support was distributed only to known poor people during the first weeks of the lockdown, while the new poor people, as a result of income loss, were also deprived.

“We have never received any survival bags. We heard that there were some people coming to provide survival bags to this slum, but we have never got anything. It is not fair. We are suffering from the outbreak too.” (PAR#6).

“When we first started providing assistance, our first instinct was giving it to vulnerable people for example elderly, deprived families, and bedridden patients. It turned out that we created conflict because actually everyone was affected no matter what jobs they had.” (PAR#20).

3.5. Political systems

Political systems refer to the extent to which people are able to participate in decisions that affect their lives. This study found that slum residents did not have the opportunity to get involved in any decision-making related to the COVID-19 response at any levels (PAR#1-6,10-19). Some of them thought they were powerless and not eligible to participate in the decision-making process (PAR#2,4,5,6,8,18). They were only informed about the government compensation programme, but it did not fit their lifestyles. The interviews revealed that some poor people were incapable of using the internet to register for compensation so they were excluded (PAR#2, 12, 20, 22). Also, some participants reported that their social security benefits had been delayed for months and they did not know how to protect their rights (PAR#5,22). However, a retiree who is also a slum leader said that they usually get their voices heard through CSOs, because CSOs gathered and transferred their messages to policy makers (PAR#19).

“We are working class, I don't know how to get involved in politics” (PAR#18).

“We are all affected, no job, no money, and we have all these expenses, the government should help us all. I am Thai, I earned very little and have no social security benefit, why did not I receive the compensation?Politics, it's something that I can't take part in, I don't know how to get involved” (PAR#2).

3.6. Health and well-being

Health refers to a state of complete physical, mental, social and spiritual wellbeing [13]. This study found that the health of slum members were affected by food insecurity and mental health problems.

Table 2 presents the selected health and well-being impacts of the outbreak on the participants. The quantitative findings indicated that 85.4% of the participants encountered at least one food problem during the lockdown. The main food problems are due to economic constraints; i.e. eating less (61.8%) and hungry but did not eat (51.9%). Around one-tenth (8.9%) relied mainly on donated food because they could not afford food. Among 624 participants had regular meal patterns, but 137 participants (22.0%) skipped meals due to personal financial constraints. The food types consumed less than before were expensive food such as seafood (64.9%), meat (52.4%), and fruit (47.1%), which may be due to financial constraints. The reduction of food consumption may affect their nutritional status. In terms of limited food accessibility and availability, approximately one-third of the participants (32.6%) had difficulty going out to buy food and around one-tenth (12.2%) could not find any food.

The crisis affected not only food security but also mental health. Stress levels had increased during the lockdown in 42.6% of participants. Among these, those whose stress increased by three levels (from lowest to highest), two levels, and one level were 5%, 11.6%, and 26.0%, respectively. The increased stress during the lockdown was statistically associated with income loss and self-quarantine for 1.5 months at p value < 0.05 with the adjusted odds ratios (95% Confident interval) of 1.59 (1.19–2.11) and 2.29 (1.27–4.13), respectively. The qualitative work confirms that increased stress was related to financial constraints (PAR#1-5, 7-10, 11-13, 17-19).

“I am stressed. My husband is stressed. We have no income while having a big mortgage to pay. My children are stressed. They could not play outside and were addicted to screens instead.” (PAR#17).

“We are stressed and we cannot sleep. We are worried about how can we pay for food, pay our bills.” (PAR#7).

Interestingly, some participants reflected that those who were most vulnerable felt that this crisis improves their food security due to the food donations and assistance.

“People who earned very little or had no jobs are happy because they receive survival bags and donated food but people who used to have jobs are not.” (PAR#19).

“People came to donate to this slum a lot. I am a slum volunteer. When I gave things to people during the lockdown some people were happy and said COVID-19 was helping them, their lives were better than before.” (PAR#17).

The majority of participants protected themselves from the disease. The findings showed that 95.8% of them put on a face mask whenever leaving home, 91.5% used alcohol gel or washed their hands with soap whenever they touched something, and 59.2% complied to the social distancing campaign. All informants in slums mentioned that masks and alcohol gel were freely available from both the government agencies and donors (PAR#1-19).

From 258 people who used health services during the lockdown, 92.2% reported that there was no difficulty accessing the services, while only 7.8% had some difficulties such as closed clinics and obstacles with transportation. One informant reported that the lockdown caused difficulties in travelling to the hospital where she has registered for free health services (PAR#7).

“My mother had to see a doctor in her town once a week. She had come to visit me but could not go back there to see a doctor due to the lockdown so I had to pay a lot to the hospital here.” (PAR#7).

The participants receiving health services felt that the services were better (27.5%), the same (62.2%), and worse (9.8%) during the lockdown compared to prior visits.

3.7. Fears and aspirations

Fears and aspirations refer to people's perceptions about their safety, their fears about the future of their community, and their aspirations for their future and the future of their children. This study found that there were fears but not aspirations. Fears involved not only of being infected by the deadly virus (PAR#2,7,9,15,19,22) but also not capable of maintaining their subsistence (PAR#2-23). The informants did not have aspirations concerning whether they or the government can cope with this crisis. All informants in the slums had no idea of how to deal with their financial problems (PAR#1-19). Also, they did not think that they could rely on social protection or that there would be effective interventions to address the COVID-19 crisis (PAR#3,7,8,20). Some of them did not think the situation would resume back to normal in the near future (PAR#3,8,18). Some informants predicted that they could handle this situation for no longer than three months (PAR#4,5).

Of 19 informants from the slums, 18 informed that the government should provide income compensation to everyone and more efficient management (PAR#2-19), easing business and school shutdown (PAR#2-17), and ending night curfew (PAR#6-16).

"I want my job back, I do not want to beg my relatives for money any more". (PAR#2).

"It is obvious that long school breaks affect child development because the children are isolated from education, social interaction, and school lunch. Children should be in school. This disease is preventable and we believe that schools can do it." (PAR#22).

3.8. CSOs' response to the crisis

All informants from CSOs group perceived COVID-19 as more of an economic crisis than a health crisis (PAR#20-23). They witnessed the increase of hunger and economic stress in slums so they decided to switch their routine duties to respond to the crisis. Basically, they played the role of connectors who matched assistance to the needs of the community using different approaches, based on their capacities and assets such as reputation and reliability. In terms of funding sources, CSOs run by younger leaders (generation Y) gathered funding and resources through social media and crowdfunding (PAR#20,21), while CSOs run by older leaders (baby boomers) gained assistances mainly through their social connections and reputations (PAR#22,23).

Responding to COVID-19, CSOs attempted to provide food, jobs, health services, and school services to slum people. Concerning the provision of assistance, it was discovered that a considerable number of non-registered populations lived in the slums. The issues are multi-dimensional and all problems should be addressed in parallel (PAR#20-23). Therefore, assistance aimed to increase access to food, survival bags for the general population, young children and bedridden patients, jobs, health services, and mobile schools (PAR#20-23). There were initiatives in terms of food provision, health services, and social welfare. Different approaches were used for food provision. One informant reported that their organisation preferred to distribute food coupons for all at least one meal a day to be used at community street food vendors rather than to provide food boxes (PAR#20). This is because they think that this system can secure income for community street food vendors, provide freshly prepared meals to people in the communities, and avoid garbage from food packages. Another CSO gathered funding from social connections and transformed tourist communities into temporary ready-to-eat food suppliers in order to support slums and their communities (PAR#21). In terms of jobs, CSOs provided job vacancies as slum volunteers (PAR#20,22) and approached business sectors to find jobs for people in slums (PAR#20). The slum volunteers were trained to organise people in the slums and respond to the COVID-19 crisis. A CSO representative acknowledged that there are limitations in terms of health volunteers' capacities in slums (PAR#20) and access to free health

services because they are not Bangkok residents. Therefore, the CSO requested extra support from the public health agency to provide COVID-19 screening tests, and knowledge on personal hygiene practices and the right to receive health services related to COVID-19 outbreak. Two informants from CSOs reported that they provided school services during the school shutdown to children in slums including school lunch and milk, and mobile school activities in order to maintain children's basic skills (PAR#22, 23).

The CSOs shared a lesson learnt that building trust, and gathering and using evidence of the socio-demographic of the population, their needs, and the context are the key success factors (PAR#20-23). CSOs have built trust through their social connections and slums for many years so this enabled a quick response to the crisis. In terms of generating evidence, they first started providing assistance without information, which raised challenges so they decided to conduct censuses and need assessments in the slums with support from the slums (PAR#20,22,23). A CSO working with tourist communities decided to conduct meetings with community members and meetings with other CSOs in order to better understand community needs, so they could make connection between slums, the capacities of food suppliers, and suitable approaches going forward (PAR#21). The assessments do not only guide actions but also enabled them to gain acceptance and engagement from stakeholders (PAR#20-23).

"We must know where the pain point is, what we can do, and whether the actions fit with the slum's context otherwise we will waste resources and do not gain people's engagement." (PAR#20).

However, the participants reflected that the assistance can only relieve suffering, so the government should provide social safety nets and jobs to address the problems in the long run (PAR#19, 20, 22, 23).

"Survival bags and food provided were sufficient for us to survive but some people have to pay their debts. This is not enough to lead a life in the long run. They need jobs." (PAR#19).

"These activities are not sustainable. We will run out of funding eventually. The government should provide social safety nets." (PAR#20).

4. Discussion

There is increasing evidence of the impact of COVID-19 at the macro level. However, few studies reveal how hard COVID-19 affects different groups of the population and in which ways. This is worth paying attention to, in order to provide more specific social protections to each group. This study is among the first to present the social impact of COVID-19 on disadvantaged people living in urban slums from the community's perspective. Moreover, this study presents findings about the roles of CSOs in alleviating suffering through different initiatives. Lessons learnt can be drawn from Thailand experiences in order to better address the impact of such complicated crises on disadvantaged people.

It is estimated that 8.4 million job losses occurred in Thailand from April to June 2020 [9]. The question is how far the economic crisis worsened the lives of those already deprived, such as urban slum residents. This study asserts that the sudden job and income loss drove the majority of Bangkok slum residents towards the edge of socio-economic vulnerability with no ability to earn a living; this can be also life-threatening without proper social safety nets. The study showed that the economic impact on people varied according to the occupation. Unfortunately, daily hire workers and vendors or small enterprise owners, which were the majority of the slum residents, were most insecure. This finding complies with the trend of job and income loss reported elsewhere that, amid the COVID-19 pandemic, a higher proportion of low-income earners lost their income in comparison with other types of labour [16, 17]. Therefore, this global economic downturn affected people with limited skills more than skilled labourers.

COVID-19 caused a great economic downturn both at global and national levels, which further increased household economic hardship [9, 18]. Interestingly, Thailand had a relatively low rate of COVID-19 infections compared with most ASEAN countries [19] but its economy has been affected the hardest [20]. Thailand employed a delayed but strict COVID-19 response and the longest lockdown (58 days while the second longest was 42 days in Malaysia) [21] because it aimed to reach and maintain zero COVID-19 transmission. This nationwide lockdown blocked not only international but also domestic trades and tourisms. A large number of small and medium enterprises could not survive through the prolonged lockdown, resulting in a massive job losses [22] and further harming the subsistence of disadvantaged people [9].

The income loss increased hunger among Bangkok slums residents. The situation is worrying because almost one-tenth of respondents could not afford food and relied mainly on donated food. The findings highlight the need for food banks. CSOs and donors organised temporary food banks in Bangkok slums to support those who were facing food insecurity [23]. A number of food bank models were initiated, for example, meal box charity, community food pantries (where food donors place food for people in the communities), and food coupons [23, 24]. This study suggested that food coupon model has many advantages i.e. both food recipients and local food vendors can benefit from the scheme, food recipients can have their own food choices of newly prepared food, and less garbages were produced.

Although slums are vulnerable to COVID-19 transmission due to population density and limited ability to afford personal protection [25], Bangkok slums have remained free of COVID-19 since the beginning. Bangkok slums residents have had good personal hygiene, which may be due to the free face-masks and alcohol gel services and the public communication broadcasted daily through all media platforms. Also, the majority of the population voluntarily and compulsorily stayed at home due to the business shutdown and social distancing campaign. Therefore, these measures were successful in preventing the disease in Bangkok slums.

This study adds to the evidence of the vicious cycle of poverty and social exclusion. Social exclusion worsens the impact of COVID-19 by hindering these disadvantaged people from participating in and benefitting from the decision-making. Obviously, the financial assistance were aimed for the poor, but had been designed solely by policy makers who had no input information on how the poor can benefit from the schemes. This study reveals some gaps of income-loss compensation scheme implemented in Thailand that may exclude people who are most in need. Firstly, the online registration, whereby recipients need to register on the government's website and be approved by the authorities, creates barriers to those who cannot afford an internet connection or have limited information technology literacy. A significant proportion of the participants could not access the assistance. This approach is not appropriate in the context where a considerable proportion of population could not use the internet. Secondly, the numbers of people in need were underestimated, especially in urban slums, mainly due to the lack of effective information system to guide decisions. A large number of affected people had been left out for months without income-loss compensation. This social exclusion may further widen the gaps in society.

This study shows that CSOs played an important role in providing relief during the COVID-19 crisis. They have the ability to bridge urban slums with social safety nets and empower slum residents to voice their needs. Experienced CSOs had the agility, set of knowledge and skills related to slums management, and social capital needed for effectively gathering, managing, and distributing resources. These characteristics are also reported elsewhere with a variety of support mechanisms [26]. The findings emphasizes that urban slums are blind spots to the public sector. Also, some emerging problems such as COVID-19 crisis are unlikely to be addressed efficiently and timely by rigid and routine-based governmental agencies. Local CSOs' social and intellectual capitals are potentially capable to solve the limitations. Therefore, in such

circumstances, experienced local CSOs should be involved in formulating and providing social safety nets to slum residents to increase the efficiency, responsiveness, and equity. Public-CSOs partnership should be established effectively.

There are some strength and limitations of this study that should be taken into account when interpreting the findings. This study involves self-reporting and retrospective assessment so social desirability and recall bias could be introduced [27]. To reduce potential biases, we assured the participants that anonymous and strictly confidential approaches were used.

5. Conclusion

The negative social impact of COVID-19 can be life-threatening to vulnerable people. People with different occupations were affected in various ways. Their resilience and social assistance allows them to cope with the crisis to varying degrees. Social exclusion is common among urban slum residents. It inhibits slum residents to benefit from social protections. This study highlights that experienced CSOs should be involved in order to effectively provide social protections to urban slums residents. It is important to find the balance between preventing death from COVID-19 and preventing suffering and death from an economic crisis. This evidence also emphasises the importance of a holistic approach against the COVID-19 crisis to mitigate the suffering.

Declarations

Author contribution statement

Suladda Pongutta: Conceived and designed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

Kanang Kantamaturapoj: Conceived and designed the experiments; Wrote the paper.

Kannapon Phakdeesettakun, Payao Phonsuk: Contributed reagents, materials, analysis tools or data; Wrote the paper.

Funding statement

This work was supported by Thai Health Promotion Foundation.

Data availability statement

Data will be made available on request.

Declaration of interests statement

The authors declare no conflict of interest.

Additional information

No additional information is available for this paper.

Acknowledgements

The authors would like to thank research participants and slum leaders for their cooperation. Also, they express their gratitude to the International Health Policy Programme for providing technical support.

References

- [1] Our World in Data. Mortality Risk of COVID-19, University of Oxford, 2020 [cited 2020 20 August]. Available from: <https://ourworldindata.org/mortality-risk-covid#the-current-case-fatality-rate-of-covid-19>.
- [2] Our World in Data, Policy Responses to the Coronavirus Pandemic, University of Oxford, 2020 [Available from: <https://ourworldindata.org/policy-responses-covid>].

- [3] D.D.P. Fujiwara, R. Lawton, F. Behzadnejad, A. Lagarde, C. Maxwell, S. Peytrignet, The Wellbeing Costs of COVID-19 in the UK, Simetrica-Jacobs and the London School of Economics and Political Science, London, 2020.
- [4] Y. Zhang, X. Diao, K.Z. Chen, S. Robinson, S. Fan, Impact of COVID-19 on China's macroeconomy and agri-food system—an economy-wide multiplier model analysis, *China Agri. Econ. Rev.* 12 (3) (2020) 387–407.
- [5] The Global Initiative on Decent Jobs for Youth, Youth and COVID-19: Impacts on Jobs, Education, Rights, and Mental Well-Being, 2020. Available from: https://www.ilo.org/wcmsp5/groups/public/—ed_emp/documents/publication/wcms_753026.pdf.
- [6] UN Habitat. The Challenge of Slums: Global Report on Human Settlements, 2003. Nairobi.
- [7] K.P. Wasdani, A. Prasad, The impossibility of social distancing among the urban poor: the case of an Indian slum in the times of COVID-19, *Local Environ.* 25 (5) (2020) 414–418.
- [8] Department of Disease Control of Thailand, Corona virus disease (COVID19): situation Nonthaburi: Ministry of public health, Thailand; [cited 2020 August 18]. Available from: <https://ddc.moph.go.th/viralpneumonia/eng/situation.php>.
- [9] World Bank, Thailand Economic Monitor : Thailand in the Time of COVID-19 Washington, D.C., 2020 [Available from: <http://documents.worldbank.org/curated/en/456171593190431246/Thailand-Economic-Monitor-Thailand-in-the-Time-of-COVID-19>].
- [10] Ministry of Digital Economy and Society of Thailand, Social protection Measures Dealing with COVID19 Impacts [In Thai] Bangkok, 2020 [cited 2020 August 19]. Available from: <http://www.gcc.go.th/webgcc/?p5488>.
- [11] Office of the National Economics and Social Development Council of Thailand, A Survey of Economic Impact on and Needs of Economic Sector [In Thai], Office of the National Economics and Social Development Council of Thailand, 2020 [Available from: shorturl.at/gqU24].
- [12] The Department of City Planning of Bangkok, Bangkok community statistics Bangkok, 2018.
- [13] F. Vanclay, International principles for social impact assessment, *Impact Assess. Proj. Apprais.* 21 (1) (2003) 5–12.
- [14] National Statistical Office, A Survey of Affected Households in Flooded Areas 2011, National Statistical Office, Bangkok, 2011.
- [15] O. Silpakit, Srithanya stress scale [in Thai], *J. Mental Health Thailand* 16 (3) (2008).
- [16] International Labour Organization, Impact of the COVID-19 Crisis on Loss of Jobs and Hours Among Domestic Workers, International Labour Organization, Geneva, 15 June 2020.
- [17] K.H.M. Parker, A. Brown, About Half of Lower-Income Americans Report Household Job or Wage Loss Due to COVID-19: Pew Research Center, 21 April 2020 [cited 2020 18 September]. Available from: shorturl.at/hitLO.
- [18] World Bank, COVID-19 to Plunge Global Economy into Worst Recession since World War II: the World Bank, 8 June 2020 [cited 2020 22 September]. Available from: <https://rb.gy/bqfxa4>.
- [19] WHO, WHO Coronavirus Disease (COVID-19) Dashboard Geneva, WHO, 2020 [cited 2020 August 18]. Available from: <https://covid19.who.int/table>.
- [20] United Nations, Policy Brief: the Impact of COVID-19 on South-East Asia, July 2020.
- [21] N. Islam, S.J. Sharp, G. Chowell, S. Shabnam, I. Kawachi, B. Lacey, et al., Physical distancing interventions and incidence of coronavirus disease 2019: natural experiment in 149 countries, *BMJ* 370 (2020) m2743.
- [22] Bangkok Post, Second Half to Witness More Business Closures Bangkok: the Bangkok Post, 26 June 2020 [cited 2020 21 September]. Available from: <https://rb.gy/nylenv>.
- [23] P.B.S. Thai, Thailand Sees Proliferation of Food banks during COVID-19 Pandemic Bangkok: Thai PBS, 11 May 2020 [cited 2020 22 September]. Available from: shorturl.at/xQSW5.
- [24] THESMARTLOCAL, Thai Citizens Join Campaign to Support Local Food Stalls and Buy Py-It-Forward Meals for Others Bangkok: the Smart Local, 17 April 2020 [cited 2020 22 September]. Available from: shorturl.at/yADX3.
- [25] T. Tampe, Potential impacts of COVID-19 in urban slums: addressing challenges to protect the world's most vulnerable, *Citi. Health* (2020) 1–4.
- [26] United Nations, CSOs Response to COVID-19, United Nations, 2020 [cited 2020 22 September]. Available from: <https://www.un.org/en/civil-society/csos-response-covid-19>.
- [27] A. Althubaiti, Information bias in health research: definition, pitfalls, and adjustment methods, *J. Multidiscip. Healthe.* 9 (2016) 211–217.