



# Household food coping strategies during the COVID-19 pandemic in Padang City

## *Food coping strategies rumah tangga selama masa pandemi COVID-19 di Kota Padang*

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### Article History:

Received: June 24, 2022; Revised: October 21 through November 16, 2022; Accepted: December 22, 2022; Published: June 3, 2023.

### Publisher:



Politeknik Kesehatan Aceh  
Kementerian Kesehatan RI

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## Abstract

The COVID-19 pandemic has brought many negative impacts to life sectors, including food access. It drives people to make some responses called food coping strategies to adapt to the current situation to fulfill their food access. This study aimed to analyze some of the food coping strategies done by households in Padang City during the pandemic. It was a descriptive study involving 87 households in Padang City located in the working areas of Anak Air, Lubuk Buaya, and Seberang Padang Health Center. Data on household characteristics and food coping strategies were collected through direct interviews. Data analysis showed a decrease in the household economic situation, shown by a 7,7% decrease in total expenditure per capita in a group below 40% compared to last year. 65,5% of the households did a tingkat two food coping strategy, and 14,9% even had to do the most extreme. Most of the household did food coping strategies by changing their food habits. We hope that government can evaluate the current policy so that no household has to do the most extreme coping strategies.

**Keywords:** COVID-19, food coping strategies, household, pandemic

## Abstrak

Pandemi COVID-19 telah memberikan berbagai dampak negatif pada berbagai sektor kehidupan masyarakat termasuk akses pangan. Hal ini mendorong masyarakat untuk melakukan respon yang disebut *food coping strategies* untuk beradaptasi agar dapat memenuhi akses pangannya. Penelitian berikut bertujuan untuk menganalisis *food coping strategies* apa saja yang dilakukan oleh rumah tangga di Kota Padang selama masa pandemi. Penelitian dilakukan secara deskriptif yang melibatkan 87 rumah tangga di Kota Padang, yaitu tepatnya di wilayah kerja Puskesmas Anak Air, Lubuk Buaya, dan Seberang Padang. Data mengenai karakteristik dan juga perilaku *food coping strategies* rumah tangga dikumpulkan melalui wawancara langsung. Hasil analisis data menunjukkan bahwa terdapatnya penurunan perekonomian rumah tangga hingga 7,7% dari total pengeluaran per kapita pada kelompok 40% ke bawah dibanding tahun lalu. Sebesar 65,5% rumah tangga melakukan *food coping strategies* hingga tingkat 2 dan bahkan 14,9% rumah tangga harus melakukan hingga tingkat paling ekstrem. Perubahan kebiasaan makan menjadi pilihan utama coping strategies yang dilakukan oleh rumah tangga di Kota Padang. Hasil kajian ini dapat digunakan sebagai bahan evaluasi kebijakan pemerintah untuk membantu warga sehingga tidak sampai melakukan coping hingga tingkat ekstrem.

**Kata Kunci:** COVID-19, *food coping strategies*, pandemi, rumah tangga

## Introduction

COVID-19 is a new coronavirus infection called SARS-CoV-2. The first virus case was in Wuhan, China, in late December 2019 and quickly spread to various countries. The number of known COVID-19 cases globally reached 131.020.967 by April 5, 2021 (WHO, 2021).

Covid-19 cases were first detected in Indonesia in March 2020 in Depok, West Java. As is the case globally, cases of Covid-19 in Indonesia also spread rapidly to various regions. It is known that there were 1.537.967 post-Covid-19 cases by April 5, 2021, in Indonesia, with the death rate reaching 41.815 or 2,7% (Kemenkes RI, 2022). Meanwhile, in the city of Padang, known confirmed Covid-19 positive patients as of April 6, 2021, 15.767 with the death rate reaching 300 cases or 1,9% (Pemkot Padang, 2021)

Pandemics have impacted society in various sectors, including the economic sector. The economy is one of the sectors affected by a pandemic. The BPS data for 2020 states that the open unemployment rate increased by 1,84% compared to 2019. Known from the initial 5,23% increased to 7,07%. The data also mentions that it is urban areas that have experienced a fairly high increase in TPT from 6,29% in 2019 to 8,98% in 2020 (Badan Pusat Statistik, 2020; Gandasari & Dwidienawati, 2020; Islam & Muyeed, 2020) Pandemics also affected the city of Padang with known as 10.468 MSME (Micro, Small and Medium Enterprises) the impact of pandemics in April 2020 (Febrina 2020).

Household resilience is another sector affected by the COVID-19 pandemic. As a result of the pandemic, there has been an increase in food virility cases worldwide (Madzorera et al., 2021; Nguyen et al., 2021; Singh et al., 2021). Pandemics have harmed the four main supporting pillars of household resilience. One is related to food access. As it has been known, access to food is a broad concept not limited to physical access but also access to the food economy. The economic decline will lead to decreased food purchasing power, increasing the risk of food infertility (Abdullah et al., 2019; Ruhyana et al., 2020).

One of the most common steps to take when there is a threat of food malnutrition is to implement "food coping strategies" (WFP, 2008). Several studies have shown a positive correlation between food coping strategies and the intensity of a household's virgin food. The increasing

degree of food virility is increasingly extreme, and coping strategies are being implemented (Farzana et al., 2017; Shakeel & Shazli, 2021).

The problem found by the researchers is that there has not been any research related to food coping strategies done by households in the Kota Padang region, so researchers are interested in analyzing the extent to which household food coping strategies carried out by the household in the Kota Padang during the COVID-19 pandemic.

## Methods

This study is descriptive and part of a broader study entitled Household Food coping strategies during the Pandemic Period of Home Food Sustainability and Quality Toddler Diets in the City Field. The research has also passed the ethical test by the Bioethics Commission of the Faculty of Medicine of the University of Islam Sultan Agung Semarang through Decision No. 172/VI/2021/Bioethics Committee. The research was carried out in the town of Padang, precisely in the work area of Anak Air, Lubuk Buaya, and Seberang Padang Health Center. Respondents in the study were domestic and selected through proportional random sampling. The total number of respondents in this study was 87.

The data collected in this study include household characteristics as well as data on food coping strategies carried out by households. All data is collected through interviews using a structured questionnaire directly. Data on food coping strategies was obtained through a developed questionnaire. The questionnaire consists of 29 questions divided into seven groups, to be subsequently analyzed into levels 1, 2, and 3, where level 3 is the most extreme or severe level.

Data processing in the research begins with the process of entering data, cleaning data, then continues with statistical analysis. Statistical analysis: Basic statistical analysis includes averages, minimum values, maximum values and standard deviation (SD), and data distribution analysis.

## Result and Discussion

A total of 87 households from Anak Air, Lubuk Buaya, and Seberang Padang Health Center were

taken into account in this study. The analysis showed that based on classification, most family heads were in the young adult age group (Brown et al., 2011). The average age of the head of the family respondent was 36.8 years old, with the

youngest age 26 years and the oldest age 68 years. This result is quite predictable as the population data of Padang shows that most of its population (36%) is in the young adult age group (BPS Kota Padang, 2020).

**Table 1.** Distributed characteristics of households

Characteristics	n	%	Mean ± SD
Age of the head of the family			36,8 ± 6,8
Young Adult (20 - 40 year)	60	69,0	
Adult Madya (40 - 59 year)	26	29,9	
Less than a year (<65 year)	1	1,1	
Education of Family Head (Year)			11,1 ± 2,6
Elementary	11	12,6	
Junior High	14	16,1	
High School	53	60,9	
Higher Education	9	10,3	
A large family (People)			4,6 ± 1,2
Small (4)	45	51,7	
Currently (5-6)	36	41,4	
Big (7)	6	6,9	
Expenses per capita (IDR)			822.522 ± 342.651
Lower (<891.616)	58	66,7	
High (891.616)	29	33,3	

The level of education of the head of the family respondents is also good because the majority (60,9%) have obtained education until high school. The city of Padang has indeed had a high school participation rate above 90%, with most of its inhabitants having high school degrees (BPS Kota Padang, 2020). Nevertheless, the average level of education of the head of the household reached only 11,1 years or still did not meet the standard of compulsory study for 12 years that was initiated starting in 2012 and began to be implemented in 2015 by the government through the Intelligent Indonesia Program listed in the Permendikbud Number 12 the Year 2015. Education is one of the basic factors supporting achieving optimal nutritional status. A person with a higher education level usually has better nutrition knowledge (Dwi Utami et al., 2017; Skoufias & Vinha, 2021).

Someone with a higher level of education also usually has a better economy because they have a more stable job with higher incomes anyway, thus having a better food economy. Higher education makes economic conditions more stable even during pandemic times. The economic impact of a pandemic is known to be milder in a person who has a degree with a higher education (Al Rahmad, 2021; Daly et al., 2020; Parkinson, 2020).

Table 1 also showed that the majority of households (51,7%) belonged to families with large and small families. However, the average number of family members is close to the large middle family, which is 4,6 persons. The largest household has eight members, and the smallest has three family members. A large family is strongly related to household food security. With the same income, households with fewer families will be more resilient to food than families with larger members. The number of family members in a household will affect food distribution in quantity and quality (Ngema et al., 2018; Nyangasa et al., 2019).

The economic sector is one of the sectors that was greatly affected by the Covid-19 pandemic. Currently, there has been a decline in the world economy due to this pandemic. The study also showed a decrease in the economy of households in the countryside compared to the previous year. Table 1 shows that most households (66,7%) will have total per capita expenditure below 40% of total per-capita spending by 2020. The respondent family's average per capita expenditure is IDR 822.522,00 IDR 342.651,00. This data shows a decline in the household economy in Padang by IDR 69.094,00 or 7,7% compared to last year. Regarding special

food expenditure, there is a decline of IDR 99.430,00 or 19,9%, from IDR 499.463,00 in 2020 to IDR 400.033,00 in this study (BPS Kota Padang, 2020).

The Covid pandemic has caused 114 million people to lose jobs worldwide, reducing working hours by 8,8% (ILO, 2021). In Indonesia alone, 3,05 million people are affected by the termination of employment, with an increase in the unemployment rate of 1,84% to 7,07% (BPS, 2020; Rusli & Berlianto, 2022). In the city of Padang also known as 10.468 MSME the impact of a pandemic in April 2020 (Febrina, 2020). Losing a job is the same as losing a source of income so that there is a decrease in the purchasing power of food or other goods and services.

Table 2 shows the distribution related to the level of food coping strategies performed by households in the City of Padang during the pandemic period. It is known that only six households, or 7% of the entire household, stated that they were not affected, so they did

not do any food coping strategies. Meanwhile, 65,5% of households even have food coping strategies up to level 2, and 14,9% have to do food coping strategies to the most extreme level.

**Table 2.** Distribution of houses based on food coping strategies

Food coping strategies	n	%
Not doing food coping strategies	6	7,0
level 1	11	12,6
level 2	57	65,5
Level 3	13	14,9

The economic decline caused by the COVID-19 pandemic forces households to adapt to the situation. Households will implement several social responses to address threats or difficulties related to food and economic access. The household can do everything in the short or long term. These are known as food coping strategies (WFP, 2008).

**Table 3.** Household behavior in food handling strategies

Level	Group	Behavior Coping	n	%
1	Increased income	Looking for side work.	36	41,4
		Planting food plants in the garden or ground near the house	11	12,6
		Food for chickens, etc.	9	10,3
	Changing eating habits.	Buying cheaper food.	39	44,8
		Reduce the type of food consumed.	27	31,0
		Change the purchasing priority	17	19,5
		Buying food at a lower price.	11	12,6
		Reducing food portions	2	2,3
	Increased access to food	Looking for wild plants to eat	3	3,4
		receiving food from the family.	29	33,3
		Follow the government's food aid program	15	17,2
		Rice Subsidies	8	9,2
	2	Acceleration of cash purchases	Barter of Food	5
Take money savings			36	41,4
Change the distribution and frequency of food		Added Asset	5	5,7
		Selling unproductive assets.	3	3,4
		Borrowing money from close family.	25	28,7
		Borrowing money from a distant family	2	2,3
		borrowing money from loan providers.	7	8,0
Not eating in a day.		Borrowing food from the farm	16	18,4
	Change the distribution of food	19	21,8	
3	Take extreme steps.	Reduce the amount of food consumed per day	24	27,6
		Not eating all day. (fasting)	6	6,9
3	Take extreme steps.	Move to another town/district	14	16,1
		Giving children to the family	1	1,1

Each household's Food coping strategies are different- even at the same level, the actions performed can also differ. It is detailed in Table 3. The household will adjust to the situation and the severity of its current impact. In this study, the food coping action mostly done by households is to change eating habits. Changes in eating habits include buying cheaper foods (44,8%) and reducing the type of food consumed (31%). In addition to changing eating habits, households also seek to increase their income by finding side jobs (41,4%) and accelerating cash purchases by leveraging savings (41,4%). Increased access to food was also made by receiving food from relatives and through government aid programs.

The results of this study are consistent with several previous studies in which most people choose to buy cheaper foods or change the selection of food ingredients consumed. Using existing resources is one of the easiest ways to adapt. If it feels less, then it will look for other resources to increase access to food by looking for side jobs, trying to plant in the garden, or taking advantage of the existing help either from one's brother or the help of the government (Dasgupta & Robinson, 2021; Itheme et al., 2020; Okidim et al., 2021).

## Conclusion

The COVID-19 pandemic has caused a variety of negative impacts including on households in the City of Padang. One sector affected is the economic sector that forces people to adapt to the situation in order to meet their needs. Almost all households have to undertake food coping strategies, showing that they are almost entirely affected by a pandemic. Most households even have to do coping strategies to level two and even some to the most extreme level.

The suggestions in this study are change of eating habits is the primary choice of food coping strategies carried out by households in the City of Padang.

## Acknowledgments

Thank you to the author of a great for the Faculty of Public Health of the University of Andalas, who has provided funding for research as well as the

Anak Air, Lubuk Buaya, and Seberang Padang Health Center, who have helped the smooth implementation of research.

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