

The impact of Covid-19 pandemic situation on the spending on dietary items of the families residing in Sangmeshwar tehsil of Ratnagiri district of Maharashtra.

Mandar Waman Jakhi

Assistant Professor,
Department of Economics
Athalye-Sapre-Pitre College (Autonomous) Devrukh

Abstract

The lockdown implemented during pandemic, helped to curtail the spread of Covid-19 but very badly affected the human life on many grounds. The people were forced to change their routine by the lockdown situations. The change in diet was one of such bad effect. The present study analyzed the impact through investigating the changes in spending of 84 rural families on different dietary items. During the pandemic the people were expected to keep healthy diet to fight successfully with Corona virus but the study found that the spending of the rural families on healthy items of their diet was reduced drastically.

Key Words: Covid-19, Lockdown, Health, Diet

The COVID-19 pandemic created extraordinary challenges to public health, food systems and the domain of working. Trillions of people are at risk of getting into extreme poverty and the number of malnourished people could be added by up to 132 million by the end of the year 2020. Nearly half of the world's global workforce is at risk of losing their livelihoods. The pandemic is impacting the whole food system. Border closings, trade restrictions and pandemic measures are preventing peasants from harvesting crops, accessing markets, including for buying inputs and selling their produce. This pandemic has disturbed domestic and international food supply chains and reduced access to healthy, safe and diverse diets. Now nutrition of millions people are under threat (WHO, 2020).

India witnessed devastating impact of Covid-19 during the first wave of the pandemic. (India Today, 2021). In January 2020, the first case of Covid-19 was reported in India. To control the increasing spread of the pandemic, the total nationwide lockdown was implemented on 25th March 2020 which was further extended up to 31st May. According to ILO- ADB report estimated job loss for 4.1 million youth in the country during these lockdowns. According to the same report construction and agriculture had witnessed the major job losses during this period.

During May 2020 the first case of Covid -19 was reported in Sangmeshwar Tahsil of Ratnagiri district of Maharashtra. It was the first case of its kind in the district. As the government had already placed the lockdown for all human activities in the country and the fear created by the first case news, the people from this administrative block were taking utmost care to avoid pandemic spread. The villages had isolated themselves from outside world. This scary situation affected the life of the people from tehsil.

Objective of the study:

The present research aimed to analyse the impact of Covid 19 pandemic situation on the spending on dietary items of the families residing in Sangmeshwar tehsil of Ratnagiri district of Maharashtra.

Research Methodology:

The present cross sectional study was based on online survey conducted during June -July 2020 by using Google form. Due to the physical limitations during the pandemic the researcher constructed the structured questionnaire to circulate online. The questionnaire typed in Google form in Marathi native language was disseminated through WhatsApp and email to the people in contact. The people were asked to circulate the same among their contacts to increase the number of participants in the study. The inclusion criteria for the participants was, the person should be family member of the families dwelling in the Sangmeshwar tehsil and must be 18 and above years of age. The data collected was

cleaned for the suitability of the definition of the respondent in study as the researcher didn't have control over the participants filling up the questionnaire. The data collected was classified and analysed using Microsoft Excel.

About Study Area

Sangameshwar is one of the nine Tehsils / Administrative Blocks in the Ratnagiri District of Maharashtra having 199 villages. According to the census 2011 information 66 % villages of the tehsil are having the population less than 1000. The 98.67 % geographical area falls in rural area. The main occupation of the tehsil is subsistence agriculture. According to Government data 41.3% families in the tehsil are below poverty line in 2011-12.

Literature Review

Park K-H and others (2021) have studied the Impact of the COVID-19 pandemic on the lifestyle, mental health, and quality of life of adults in South Korea where they found the significant decline in the physical activities of the respondents resulting in the deterioration of physical and mental health. The also found the significant changes in the consumption of carbohydrates and minerals among the respondents.

Chopra Sakshi and others (2020) studied Impact of COVID-19 on lifestyle-related behaviours of participants from India. The study found marginally improvement in eating behaviour, weight gain in one-third of participants as physical activity declined significantly, an increase in screen and sitting time, adverse effect on mental health among the participants.

According to Varma A. K. and Sadguru P. (2020) the lockdown proved good for family life and social engineering as people could spent their whole time with family. Stress of travelling was reduced which helped in increasing productivity of the people.

According to Food and Agriculture Organisation (2020) the Covid 19 pandemic has affected food security and nutritional diet of the people badly. The lockdown policies all over the world have increased poverty and food insecurity among the people by disrupting production, supply chain and income generation.

According to United Nations Development Programme (2020) study, the people in low-income groups are much more vulnerable during the

COVID-19 crisis because they lack the ability to come up with emergency funds and so they are days away from a collapse in living standards. The majority of workers who were in unwarranted employment have lost their income resulting in increased poverty and deprivation across key human development outcomes.

The studies related to Covid 19 impact available on internet are seems to be based on individual perspective. The studies based on impact of Covid 19 on families are very few in number. Again the same is not researched in the study area of the present study. Therefore the researcher decided to evaluate the impact of Covid 19 on the families from Sangameshwar tehsil.

Socio- Economic Conditions of the respondent families

Table No. 01

Total families	84
Social Order	
OBC	52 (61.9%)
SC	18 (21.43%)
ST	01 (01.11%)
NT	06 (07.14%)
Open	07 (08.33%)
Profession of the family head generating majority portion of income for the family	
Agriculture	27 (32.14%)
Labour	48 (57.14%)
Private job	04 (04.76%)
Government job	02 (02.38%)
Trading or other business	03 (03.58%)
Average Family size of the respondents	5 (± 2)
Average Monthly Income in Rs. Before lockdown	6500 (± 2680)
Average Monthly Income in Rs. During lockdown	1200 (± 850)
Average income in Rs. Declined by	5300 (81.53%)
All respondents belong to rural area.	

Source: Field Work

The table no. 01 shows the heterogeneous combination of respondent families in an accidental sample collected. During lockdown implemented the average income of the families concerned was dropped down by 85.88% which again resulted in the change in the spending pattern especially the diet of the respondent families. As the agriculture activities were allowed since first lockdown, the average income of the respondents did not come down to zero. All respondents in this study were belonging to rural area. During initial days of lockdown, people were very much horrified due to the atmosphere created by the electronic and social media. Therefore, the frequency of the people working in the field was too low to generate the good income for the families.

Expenditure on dietary items before and during lockdown

Table No. 02

(Absolute figures are in Rupees)

Dietary items	Monthly expenditure before lockdown				Monthly expenditure during lockdown				% Change in Average
	Average	S.D	Highest Value	Lowest Value	Average	S.D	Highest Value	Lowest Value	
Milk and milk products	650	380	1200	200	170	370	1200	0	73.85
Vegetables and fruits	740	126	900	50	46	34	150	0	93.78
Grains	1445	430	2000	1200	1440	360	2000	1000	0.34
Lentils / Cereals	684	180	830	40	560	130	500	250	18.13
Non-vegetarian products	760	480	1500	0	130	142	400	0	82.89

Source: Field Work

Majority of the activities were suspended during lockdown to control the spread of the pandemic. This move of the Governments all over the world had minimised the earning and spending

opportunities for the people. Therefore, the situation imposed was to affect the human behaviour in many ways. Dietary behaviour was one of them. The table no. 02 compares the spending pattern of the respondent families before and during lockdown imposed. It seems that protein and fats containing portion of the lunch was suffered most during the lockdown period. The spending percentage of the sample families on such food items was reduced drastically. The vegetable consumption was reduced mostly as the average monthly spending on vegetables was reduced by 93.78 % during lockdown as compared to the period before lockdown. Similarly the consumption of non-vegetarian product and milk - milk products, was also reduced drastically as the spending on both the items was reduced by 82.89% and 73.85% respectively.

The primary data collected was also tested statistically using Z test. For this purpose the H_0 and H_1 formed as follows.

$$H_0 : \mu_1 = \mu_2$$

$$H_1 : \mu_1 < \mu_2$$

μ_1 = Average spending of the families on diet before lockdown

μ_2 = Average spending of the families on diet during lockdown

The above null hypothesis was tested for spending on the dietary items i.e., milk and milk products, vegetables, grains, lentils/ cereals and non-vegetarian products. The Z statistics was calculated using Microsoft Excel which brought the following results. As the hypothesis suggests left tailed test, the left tailed statistics was considered.

Table No. 03

Dietary items	α	p	Z	Decision
Milk and milk products	0.05	0.00000	-11.58	H_0 Rejected
Vegetables	0.05	0.00000	-50.48	H_0 Rejected
Grains	0.05	0.912409	-0.11	Fail to reject H_0
Lentils / Cereals	0.05	0.00000	-6.31	H_0 Rejected
Non-vegetarian products	0.05	0.00000	-12.03	H_0 Rejected

The table no. 03 shows that, as the probability value falls in the rejection area on the normal distribution curve ($p < \alpha$), H_0 is rejected for the spending on mil-milk products, vegetables, lentils/ cereals and non- vegetarian product but fail to reject for the families spending on grains.

Conclusion

During the Covid 19 pandemic, the people were expected to stick up to healthy diet. But the results of the sample here shows that the spending of the sampled families was drastically reduced on those food items which are considered healthy (fats and proteins) and it was due to reduction in income level and suspension of trading activities during lockdown.

References ;

1. WHO (2020) Impact of COVID-19 on people's livelihoods, their health and our food systems, <https://www.who.int/news/item/13-10-2020-impact-of-covid-19-on-people's-livelihoods-their-health-and-our-food-systems>
2. India Today (2021), Covid derails economy: 5 sectors that have been hit hard, <https://www.indiatoday.in/business/story/5-sectors-hit-hard-as-covid-19-derails-economic-recovery-1796662-2021-04-30>
3. ILO- ADB report (2020), Tackling the COVID-19 youth employment crisis in Asia and the Pacific, http://www.ilo.org/asia/publications/WCMS_753369/lang--en/index.htm
4. Government of Maharashtra (2012), Below Poverty Line Families In The Rural Areas, https://data.maharashtra.gov.in/SDB_Reports/Ratnagiri/PDF/2011-12_Ratnagiri_DSA_8_28.pdf
5. Park K-H, Kim A-R, Yang M-A, Lim S-J, Park J-H (2021) Impact of the COVID-19 pandemic on the lifestyle, mental health, and quality of life of adults in South Korea. PLoS ONE 16(2): e0247970. <https://doi.org/10.1371/journal.pone.0247970>
6. Chopra Sakshi and others (2020), Impact of COVID-19 on lifestyle-related behaviours- a cross-sectional audit of responses from nine hundred and ninety-five participants from India, Diabetes & Metabolic Syndrome: Clinical Research & Reviews 14 (2020) 2021e2030
7. Varma A. K. and Sadguru P. (2020), IMPACT OF COVID-19 ON ENVIRONMENT AND SOCIETY, Journal of Global Biosciences ISSN 2320-1355 Volume9, Number 5, 2020, pp. 7352-7363
8. FAO (2020), Impacts of COVID-19 on food security and nutrition: developing effective policy responses to address the hunger and malnutrition pandemic, <https://www.fao.org/3/cb1000en/cb1000en.pdf>