

## IMPACT OF LOCK DOWN ON DIETARY INTAKE

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**ABSTRACT:** The Covid 19 situation has affected almost all population across the World. It was being declared as World health emergency. Measures such as shut down, preventing social interactions, cleanliness and sanitization compelling everyone to stay at home and work from home. The complete lockdown has affected the food supply system even. This has ultimately led to increased consumption of various food materials in the family. Because no any definite working pattern along with dietary pattern is being followed. All the family members are back at home leading to demand of increased meal timings of the member putting an extra burden on the female members. With this idea in mind the consumption of working class has been increased and the calories have been increased with the condition of readily available food dumped at home. An attempt has been made to investigate the dietary intake among the service class people of various age groups during the lock down. Data has been collected from 82 serving middle class families where in husband and wives both are in service and from last 2 months have retained compulsory at home. To study the calorie intake in service class families according to age. To study the protein intake in service class families according to age. For this purpose Google form has been formed and circulated through social media group such as what's app and emails to businessmen, service people in Akola city of Maharashtra. The data collected has been tabulated age group wise calorie and protein intake during lockdown period was calculated on the basis of 3 days diet recall method and was compared with age specific requirement with the help of Z test. The study concluded that significant increase in calorie intake amongst all the age groups over normal level was observed and significant reduction in protein intake amongst all the age groups over normal level was observed.

**Keywords: calorie intake, protein intake**

**INTRODUCTION:** The Covid 19 situation has affected almost all population across the globe. It was being declared as global health emergency by WHO (1) Various measures have been taken by WHO and the country government to prevent this pandemic. Measures such as shut down, preventing social interactions, cleanliness and sanitization closing colleges, schools, malls, restaurants, hotels, compelling everyone to stay at home and work from home. The complete lockdown has affected the food supply system even. Ever since the lock down schedule has been announced by the respective government there is a panic in the people about buying food items, though again and again the government has announced that during lock down all the essential commodities shops will not be closed still people are in a rush to buy many goods together to dump a stock at their houses hence spending extra on food expenditure. This has ultimately led to increased consumption of various food materials in the family. Because no any definite working pattern along with dietary pattern is being followed. All the family members are back at home leading to demand of increased meal timings of the member putting an extra burden on the female members particularly. Hence leading to frequent shopping of food items. One should take care of consumption of nutritious diet during the current situation. The diet is critical determinant of body immune system. Any type of dietary deficiency or excess may be a cause of malnutrition worldwide (2). Thus nutrition plays a fundamental role in maintaining or declining immune status. (3). Nutritional deficiencies of energy, protein, and specific micronutrients are associated with depressed immune function and increased susceptibility to infection. So an adequate intake of proteins, iron and vitamins is predominantly vital for the boosting and maintenance of immune function (4). The poor quality of diet can be associated with an individual's physical as well as mental health (5)

With this idea in mind the consumption of working class has been increased and the calories have been increased with the condition of readily available food dumped at home. An attempt has been made to investigate the dietary intake among the service class people of various age groups during the lock down. Data has been collected from 82 serving middle class families where in husband and

wives both are in service and from last 2 months have retained compulsory at home.

**The objectives of the study were:-**

1. To study the calorie intake in service class families according to age.
2. To study the protein intake in service class families according to age.

**Hypothesis:**

Ho: Calorie intake for all age groups under study has increased.

Ho: Protein consumption irrespective of age declines.

**Methodology:-**

In the present study primary data has been collected from questionnaire from 82 families. For this purpose Google form has been formed and circulated through social media group such as whatsapp and emails to businessmen, service people in Akola city of Maharashtra. The data collected has been tabulated on excel worksheet and age group wise calorie and protein intake during lockdown period was calculated on the basis of 3 days diet recall method and was compared with age specific requirement with the help of Z test.

$$Z \text{ calculated} = \frac{|\text{Recommended consumption intake} - \text{Actual score}|}{\text{S. E}}$$

S. E

If Z calculated > Z table then Ho: is accepted.

**Results and Discussions:**

The calorie consumption for the age groups up to 20 years, 20 to 40 years and 40 to 60 years was analyzed and presented in the following table with age specific values.

Table1. Age wise calorie intake

| AGE            | UP to 20 years | 20 to 40 years | 40 to 60 years |
|----------------|----------------|----------------|----------------|
| Calorie intake | 2600           | 2400           | 2200           |
| Mean           | 2637.619       | 2547.65        | 2502.619       |
| SD             | 77.46966       | 136.0661       | 114.8545       |
| SE             | 16.87792       | 21.52944       | 25.02276       |
| Z VALUE        | 2.22*          | 6.85**         | 12.09**        |

\* \*Significant increase in Calorie intake amongst all the age groups at 1% level of Significance

\* Significant increase in Calorie intake amongst all the age groups at 5% level of significance

The recommended and actual consumption of calories and z values presented in the table conclude that calorie consumption for all the age groups has been significantly increased. The calorie consumption below 20 years was significant at 5% level of significance while for 20 to 40 years and 40 to 60 years at 1% level of significance concluding lock down has significant positive effect on calorie intake which may have adverse effects on individual's health in near future as morning/ evening walk and physical work has been mostly stopped.

Table 2 Age wise protein intake

| AGE     | UP to 20 years | 20 to 40 years | 40 to 60 years |
|---------|----------------|----------------|----------------|
| PROTEIN | 59             | 58             | 63             |
| Mean    | 42.66667       | 46.975         | 51.38095       |
| SD      | 2.633122       | 3.717509       | 2.854403       |
| SE      | 0.573665       | 0.588213       | 0.621874       |
| Z VALUE | 28.47**        | 18.74**        | 18.68**        |

\*\*Significant reduction in protein intake amongst all the age groups at 1% Level of significance

The above table presents the protein intake and recommended intake for all age groups of the study. The Z values were found to be significant at 1% level of significance as the actual protein intake for all the age groups was less than the recommended protein intake concluding that protein intake for all the three age groups has significantly decline indicating that there is negligence towards

nutritionally rich food consumption irrespective of age resulting in significant decline in protein intake.

Both the hypotheses stated in the study are accepted as calorie intake for all the three age groups has increased with the protein intake significantly declined as per the recommended values.

**CONCLUSIONS :** It can be concluded from the above study that

1. All the three age groups had calorie intake significantly increased.
2. All the three age groups had protein intake significantly decreased.

It can be also stated from the above study that such a change in eating behaviour may have negative effect on the immune system of the body, overall physical fitness and well being.

**References:**

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