Knowledge, Attitude and Practices about Micronutrient Deficiency Diseases among the Selected Households in Dhaka City

A project report submitted to the Daffodil International University, Dhaka. For the fulfillment of the Nutrition & Food engineering



Submitted To

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Date of Submission:

LETTER OF TRANSMITTAL

29th May, 2021

Dr. Sheikh Mahatabuddin

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Subject: Submission of project work report.

Dear Sir,

It's a huge honor and privilege for me to be able to present my project work report on the Prevalence of Lifestyle Diseases Among Overweight and Obese People in Dhaka City.

This report was written based on the experience and information I gained throughout my Entire Project. I've been given the opportunity to work at your university under Ms. Fouzia Akter, (Assistant Professor, Department of Nutrition and Food engineering.)

As a result, I respectfully request and anticipate that you will honor me with any type of advice or valuable idea, and that you will promptly accept my report for your consideration. I therefore, request and expect that you will appreciate me with any sort of recommendation and valued suggestion and will cordially receive this report for your kind assessment.

Sincerely Yours,

M. A. Rahim Apunto.

M. A. Rahim Apurbo

171-34-596

APPROVAL CERTIFICATION

This certifies that M. A. Rahim Apurbo, a regular student of B.Sc. in Nutrition and Food Engineering, Faculty of Allied Health Science, International University, student ID: 171-34-596, carried out their project work programs two months in success under Pusbith Private Limited, entitled " **Knowledge**, **Attitude and Practices about Micronutrient Deficiency Diseases among the Selected Households**".

Then on December 2020, under my leadership, he concluded his report writing on the basis of his data. We know that our teacher saw M. A. Rahim Apurbo completing his report. Furthermore, Furthermore, we make sure his report meets the partial criteria of the NFE programme.

18/07/2021

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I am grateful to all of my teachers at Daffodil International University's Department of Nutrition and Food Engineering for their support and advice during my studies. I am grateful to my family and friends for their unwavering support.

___ M. A. Rahim Apurbo

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Abstract

The main reason of study about Knowledge, Attitude and Practices about Micronutrient Deficiency Diseases among the Selected Households of Dhaka City. This research had 140 participants. They were all from Dhaka and were of various ages. I gathered data in Dhaka from November 15 to December 25. The whole research is about how the most urban areas people of our country what actually thinking for themselves. But most of them only have a basic understanding of the Term's structure. The VADD and IDA were both well-known to respondents (61.4%) and (75.7%) respectively. But, according to the study, approximately 64.3%, 65.7%, and 63.4% of the respondents were unaware of the causes of VADD, IDD, and IDA. They didn't know about the cause of VADD, IDD and IDA. About 84.3% respondents are regularly eat vitamin enriched foods. About 45% Peoples BMI was Normal. About 60% of people were answered Vitamin C for Covid-19. About (72.9%) people were suffering from 'Others' means various types of diseases, 20(14.3%) people were suffering from the diseases of Anemia. About the diseases of Scurvy and Goiter 6(4.3%) and 2(1.4%) people were Suffering from. The highest number of the Sources of Body building foods were Meat, Fish, egg and poultry 76(54.3%). the percentage of the Sources of Vitamin rich foods. About 80% respondent answered Fruits and vegetables. Meat, fish, egg and poultry, Milk and milk products, Pulses and legumes answered by 8.6%, 7.1% & 1.4%. the percentage of the Sources of Vitamin rich foods. The highest number of the Sources of Protective foods that were that respondents select Fruits and vegetables 48(34.3%)

Keywords: KAP, Micronutrient, Household, Micronutrient, deficiency, Anemia, IDD

Chapter 1

1.1 Introduction:

Micronutrient a substance that required in trace amounts for growth and health. One or two of the necessary micronutrients for human health are insufficient for micronutrient deficiency. Micronutrient is a compound or substance that, in small amounts, becomes required for the growth and health of a human cell. Micronutrient deficiency or dietary deficiency is not enough of one or more of the micronutrients required for optimal plant or animal health. In humans and other animals they include both vitamin deficiencies and mineral deficiency. Micronutrient deficiencies (MND) affect up to 2 billion people globally—nearly 30% of the world's population—resulting in increased morbidity and mortality, irreversible impairment to physical and cognitive development of children, and to substantial losses in individual and national productivity (WHO, 2014) [1]. Malnutrition has become a problem not only through non-developed countries, but also in developing countries such as Bangladesh.

Vitamin A, Iodine and Iron is the most nutritional Problem in the whole world. Young children are more susceptible. Iron deficiency anemia affects more than 30 percent of the worldwide people. Micronutrient deficiency has a public health effect and the symptoms become less apparent and only appear when the disease is serious. While the deficiency affects both sexes at all ages, children and women of reproductive age, including pregnant and lactating mothers, are the most vulnerable (Thompson and Amoroso, 2011). Micronutrient deficiencies have a negative impact on infant survival, growth, brain development, educational performance, and vulnerability to illness. Children in developed countries are frequently the most vulnerable [1].

Malnutrition, like vitamin and mineral deficiencies, is responsible for more than half of all infant deaths. Vitamin A deficiency increases risk of serious sickness, and even death, with common childhood infections like diarrhea and measles. In developed nations, 200–300 million preschoolaged children are at risk of vitamin A deficiency (WHO, 2008). The main nutritional problems identified in adolescents are micronutrient deficiencies in general and Iron Deficiency Anemia (IDA) in particular [2].

While certain immediate steps are required, a simple technical cure can complicate the priority, concentration, and accomplishment of information and education in this city; this can consciously or unknowingly blur our view from deciding factors triggering the symptom. To stay alert for this potential lapse, important local information and traditions must be considered. Much further study is needed to put current expertise into practice.

Micronutrients are required to keep this constant rebuilding and re-building process operating. As a result, the demand for micronutrients will vary based on the individual demand, which is connected to the various metabolic circumstances during the life cycle. [3]

The role of micronutrients in our lives need not be emphasized. The way we can see our eyes growing is dependent on the right amount of nutrients and vitamins in our bodies. Study on the impact of various vitamins and minerals on our daily life, from many essential micronutrients to whole books on the topic, does not seem to be lacking.

1.2 Risk Factor:

Micronutrients are necessary for maintaining brain, muscle, bone, circulation, skin, and immune system.

1.3 Justification of the study

Micronutrients are vitamins and minerals which our bodies require in limited amounts but also have a large effect. In reality, micronutrients are required for a variety of body processes, including development and growth. While micronutrients are indeed needed in trace quantities, deficiencies in these micronutrients can lead to a number of health issues. And it occurs more often than you would expect. Micronutrient shortages are very common, affecting one-third of the world's population.

However, people are unable to obtain accurate advice from their doctors about the kinds of foods they can consume in order to live a healthier life and combat nutritional diseases. This incident occurred mostly in rural and urban areas. To ascertain their current condition, I conducted a survey on knowledge, attitude, and practices regarding micronutrient deficiency diseases among selected households.

1.4 Operational Definition

Micronutrients

Vitamins and minerals combine to form micronutrients. They aid in the performance of particular chemical processes in our bodies, control hormonal activity, and are essential in the prevention of illness. We only require trace quantities of micronutrients in our diets, therefore the name "micronutrients." [4]

Micronutrients impacts in the body

Micronutrients are vitamins and minerals which that body needs in small amounts.

They do, however, have a considerable impact on a patient's health, and a shortage of either can l ead to more serious, even life

threatening illnesses. They let the body to produce enzymes, hormones, and other compounds that are necessary for appropriate development and growth, among many other things.

Iron, vitamin A, and iodine deficits are by far the most frequent worldwide, especially in youngst ers and pregnant women [4].

Micronutrient deficiency is disproportionately frequent in low and lower middle communities.

Micronutrient Deficiencies

Micronutrient deficiencies can produce obvious and possibly severe health concerns, but they can also produce less clinically detectable losses in energy, mental clarity, and general performance. This can lead to poor academic performance, lower work productivity, and an increased risk of getting various ailments and illnesses [3].

Anemia

Micronutrient deficiencies can lead to a number of major health issues. Anemia is caused by a lack of iron, folate, and vitamins B12 and A. Anemia is a condition in which the number of red blood cells or hemoglobin concentration is low, resulting in tiredness, nausea, shortness of breath, and dizziness. This will make it more difficult to behave in work, school, and in the neighborhood [5].

Iodine deficiency

Severe iodine deficiency can cause brain injury, and it can also cause stillbirth, premature miscarriage, and congenital abnormalities during infancy. Iodine dysfunction of a lesser severity will also result in neurological illness and a reduction in intellectual ability. Universal salt iodization, which demands that all food-grade salt used in household and food production be supplemented with iodine, is the recommended method for preventing iodine deficiency. According to UNICEF, iodized salt is available to 66 percent of households worldwide [5].

Vitamin A deficiency

Vitamin A deficiency is the main cause of preventable blindness in infants, as well as an increased risk of illness and mortality from serious infections including diarrhoea and measles. Vitamin A deficiency can also strike pregnant women in high-risk areas during the third trimester [5].

1.5 Research Question

- 1. What is Knowledge, Attitude and Practices about Micronutrient Deficiency Diseases among the Selected Households.
- 2. What people thinking about VADD, IDD and IDA?

3. What is the source of food for Human Body?

1.6 Objectives

The study's goal was to learn more about what city residents know about Micronutrient Deficiency Diseases and what they do to prevent them.

1.7 Specific Objectives:

- To indicating the family of respondent socioeconomic information
- To access the history of interlocutors information
- To access the knowledge of interviewer anthropometric parameters
- To access to detail about people's food backgrounds
- To classify respondents' eating frequency patterns

1.8 Acronyms

WHO: World Health Organization

VADD: Vitamin A Deficiency Diseases

IDD: Iodine Deficiency Disorder

IDA: Iron Deficiency Anemia

BMI: Body Mass Index.

Chapter 2

Literature Review:

Around 800 million people worldwide are chronically starving, which means their calories are undernourished. Hidden starvation affects over 2 billion people, which means they suffer from

shortages in micronutrient. Hidden Hunger (HH) is the result of micronutrient weaknesses, which lead to some of the most extensive and weakening nutritional disorders. Deficiencies in micronutrients impact child survival, growth, brain development and schooling. The most sensitive populations are reproductive children and adults, particularly women who are pregnant and lactating. Vitamin A deficiency is at risk in developed countries with around 200 to 300 million pre-school girls. The physical, social, and eventually economic obstacles for such toddlers are devastation. Lower analytical potential undermines school funding and perpetuates poverty loops.

Three types of malnutrition may occur:

Starvation and undernutrition identified as dietary energy consumption below the minimum amounts needed for achieving and maintaining a healthy weight;

Obesity and over-nutrition described as a food intake that surpasses body weight requirements; micronutrient deficiencies that are defined as lacking the necessary vitamins and minerals that the body requires to be grown and developed in limited quantities.

Micronutrients are minerals and vitamins which, however, are important for physical and mental growth, are ingested at small amounts [6].

In 2006, WHO published a landmark document entitled Guidelines for Food fortification with Micronutrients, and introduced the publication as follows: "Interest in micronutrient malnutrition has increased greatly over the last few years. One of the main reasons for the increased interest is the realization that micronutrient malnutrition contributes substantially to the global burden of disease.... In addition to the more obvious clinical manifestations, micronutrient malnutrition is responsible for a wide range of non-specific physiological impairments, leading to reduced resistance to infections, metabolic disorders, and delayed or impaired physical and psychomotor development. The public health implications of micronutrient malnutrition are potentially huge, and are especially significant when it comes to designing strategies for the prevention and control of diseases such as HIV/AIDS, malaria and tuberculosis, and diet-related chronic diseases." 2 This WHO publication goes on to emphasize that micronutrient malnutrition is not, as was widely assumed, only a problem of developing countries. WHO defines food fortification as the practice of deliberately increasing the content of an essential micronutrient, i.e., vitamins and minerals (including trace elements) in a food, in order to improve the nutritional quality of the food supply and provide a public health benefit with minimal health risk. [5]

Food in public health addresses people's and people's health. In order to guarantee vital nutrients in packaged foods, fortification is required for the developing and developing countries. As the scientific epidemiological, nutritional, and sociological foundation of human nutrition grows, vitamin and mineral fortification and complementary policies should be encouraged 7. The government's duty for nutritious and safe food goods should be to use such policies, such as preventive supplementation and food appropriate for strengthening. These are monitored and sometimes funded in order to avoid shortages in micronutrients. Many populations are particularly vulnerable to such defects, their health and social consequences. Their value is calculated by the possible beneficial effect of protection and low cost on the welfare of a country. In the public health practice, food fortification and vitamin/mineral supplementation have an extensive history

and will continue to emerge as the foundation of scientific evidence in the 21st century as a key component of the New Public Health including:Food fortification is becoming more common. WHO member states' recommended guidelines, with implementation recommendations adopted by international bodies and aid agencies, specifically addressing iodized salt, flour fortification (iron, vitamin B complex, folic acid, and vitamin B12), milk with vitamin D, and others based on local conditions of appropriate common food sources to raise individual and population levels of essential microscopic nutrients [1].

Chapter 3

3.1 Materials

SN.	Equipment s	Purpose	
1.	Paper	To create a questionnaire	
2.	SPSS	To examine the data	
3.	Microsoft	To create a frequency in data in order to create a data chat and table	
4.	Computer	To write a report	
5.	Fund	Making a presentation	
		Creating a comprehensive report with the help of software	

3.2 Methodological Approach

Location of Study:

Because the title of my study was Micronutrient Deficiency Diseases in Selected Households in Dhaka City, this study took place in Dhaka. The majority of them are in the Shyamoli and Mohammadpur areas. I gathered information using three methods:

- 1. Gathered information by paying a visit to their home.
- 2. Use Google Forms to send a questionnaire.
- 3. Data was gathered through phone calls.

Study design:

The research was conducted on persons in Dhaka city and was cross-sectional in nature. Data is collected for this study through personal interviews with each respondent, followed by a questionnaire method, and some data is collected using a Google form. Send the questionnaire in Google Form to the respondent and gather the replies for data collection using Google Forms.

Study Population:

The study was based on "Knowledge, Attitude and Practices about Micronutrient Deficiency Diseases among the Selected Households in Dhaka city.

Study period

November 2020 to March 2021.

Data collection period

15th November 2020 to 15th December 2021.

Sample Size Calculation

Sample size =
$$\frac{\frac{z^2 \times P(1-P)}{e^2}}{1 + \left(\frac{z^2 \times p(1-p)}{e^2 N}\right)}$$

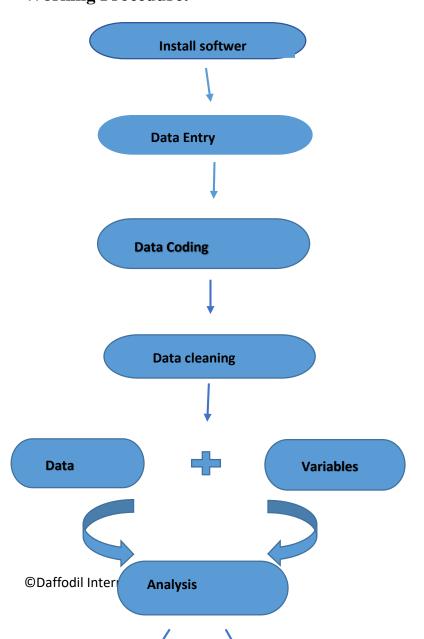
Data collection method

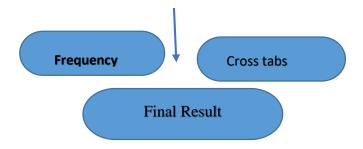
- Mainly I use the google form for the pandemic situation.
- For some of the people, I utilized local language.
- I started a conversation on social media.
- I handed out 10 to 15 mints to each respondent.
- All of the responses were entered into a Data form,
- and all of the information was gathered with their consent.

3.3 Data analysis process

For data analysis, I utilized SPSS software. SPSS Statistics is a statistical analysis application that enables to execute statistical analysis in real time or in batches. SPSS Inc. produced it for a long time before being bought by IBM in 2009. I used IBM 26 Version.

Working Procedure:



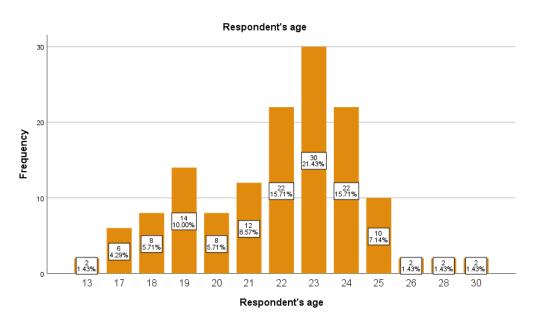


Chapter-4

Result

1.Background information

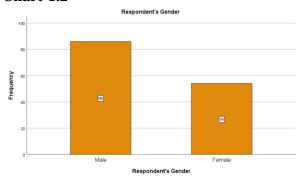
1.1Age Chart-1.1



Participants ranged in age from 13 years old to 30 years old. The majority of them are between the ages of 22 to 24. A total of 30 persons are under the age of 23.

1.2 Respondents Gender

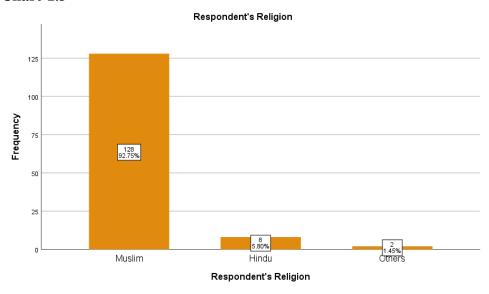
Chart-1.2



Out of 140 candidates, 61.4% were Male and 38.6% were Female. That means 86 were Male and 54 were female.

1.3 **Religion**

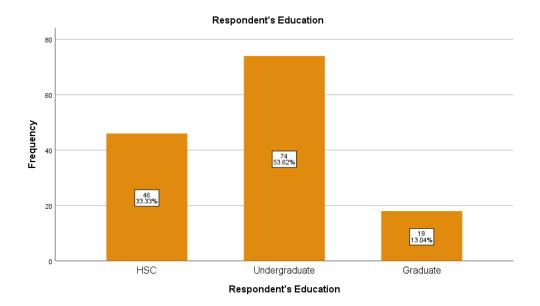
Chart-1.3



As a muslim Country, Most of the respondents were muslim. About 91.4% people were muslim, 5.7% Hindu and 1.4% others.

1.4 Education:

Chart-1.4

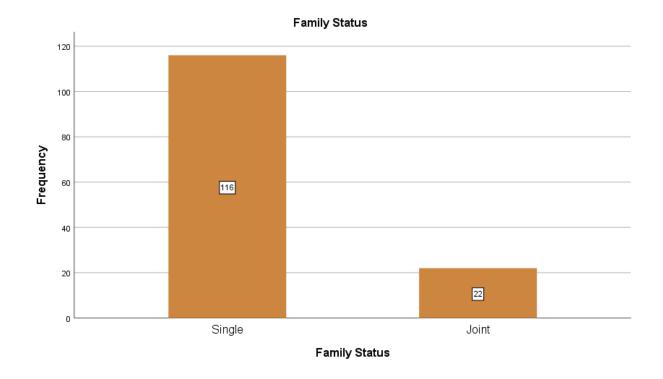


Here, Most of respondents are undergraduate. About 52.9% were Undergraduate, 32.9% were in HSC and 12.9% were graduate.

2. Socio economic information of respondent's family

2.1 Family Status

Chart-2.1



Most of respondents family were Single. About 82.9% were single & 15.7% were Joint.

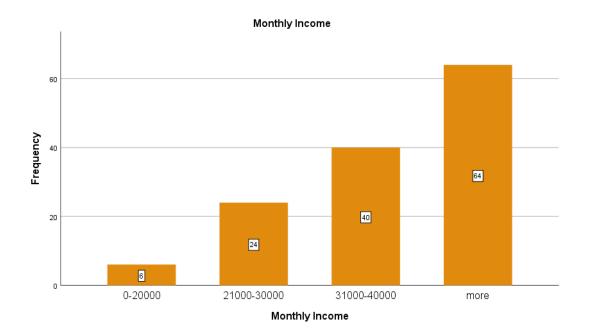
2.2 Head of home's occupation Table-2.2

Name	Frequency	Percent
Job	44	31.4
Business	62	44.3
Others	30	21.4
Total	136	97.1

Here, Businessman were 62(44.3%), job holder were 44(31.4%) and others 30(21.4%).

2.3 Monthly Income

Chart-2.3



These box showing monthly income percentage. About 46% Households income was 40000+.

3. Anthropometric information of the Respondents

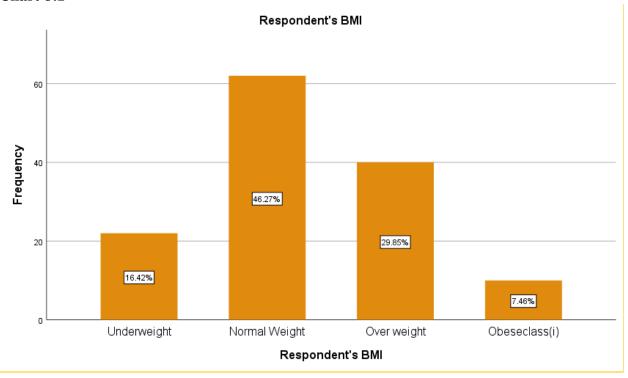
3.1 BMI

3.1 Respondent's BMI

Table-3.1

Types	Frequency	Percent
Underweight	22	15.7
Normal Weight	62	44.3
Over weight	40	28.6
Obeseclass(i)	10	7.1

Chart-3.1



These box showing BMI percentage .Here highest number of percentage normal weight 62(44.3%), the percentage of overweight were 28.6 and the last under weight number were 22(15.7%).

4. KAP about Micronutrient Deficiency Diseases

${\bf 4.1~Knowing~about~Types~of~Micronutrient~Deficiency~Diseases}$

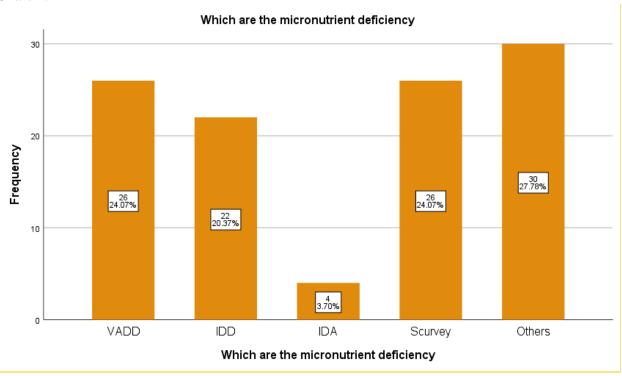
Table-4.1

Answer	Frequency	Percent
Yes	42	30.0
No	96	68.6

These box was showing types of Micronutrient Deficiency Diseases percentage. 96(68.6%) people say no, they didn't known about Micronutrient Deficiency Diseases. And 42(30%) people say yes, they had knowledge about Micronutrient Deficiency Diseases.

4.2 Which are the micronutrient deficiency

Chart-4.2



The micronutrient deficiency table we were seeing that different type of Micronutrient Deficiency Diseases name. Others were the highest number percentage that was 30(21.4%), VADD and Scurvey were same percentage 18.6, IDD were 22(15.7%) and last IDA the percentage were 2.9.

4.3 Know about Iodine Deficiency

Table-4.3

Answer	Frequency	Percentage

Yes	106	75.7
No	28	20.0

These box was showing how much people known about Iodine Deficiency percentage. 106(75.7%) people say yes, they had knowledge about Iodine Deficiency. And 28(20%) people say no, they didn't known about Iodine Deficiency.

4.4 Gave vit A capsule two times per year Table-4.4

Answer	Frequency	Percentage
Yes	86	61.4
No	52	37.1

These table showing the % of gave vitamin A capsule two times per year. 86(61.4%)people say yes, there child were gave vitamin A capsule two times per year. But 52(37.1%) people say no, child were dosen't gave vitamin A capsule two times per year.

4.5 Cause of VADD

Table-4.5

Answer	Frequency	Percentage
Yes	40	28.6
No	90	64.3

These table showing the % of Cause of VADD. The highest number 90(64.3%) of people say no, they didn't known about Cause of VADD. And 40(28.6%) people say yes, they had knowledge about Cause of VADD.

4.6 Cause of IDD

Table-4.6

Answer	Frequency	Percentage
Yes	42	30.0
No	92	65.7

These table showing the % of Cause of IDD. The highest number 92(65.7%) of people say no, they didn't know about Cause of IDD. And 42(30%) people say yes, they had knowledge about Cause of IDD

4.7 Cause of IDA

Table-4.7

Answer	Frequency	Percentage
Yes	44	31.4
No	90	64.3

These table showing the % of Cause of IDA. The highest number 90(64.3%) of people say no, they didn't known about Cause of IDA. And 44(31.4%) people say yes, they had knowledge about Cause of IDA.

4.8 Regularly take Vit enrich food Table-4.8

Answer	Frequency	Percentage
Yes	118	84.3
No	18	12.9

These table showing the % of regularly take Vitamin enrich food. The highest number 118(84.3%) of people say yes, they had knowledge about regularly take Vit enrich food. And 18(12.9%) people say no, they didn't know about regularly take Vit enrich food.

4.9 Eat enough leafy and non-leafy vegetable

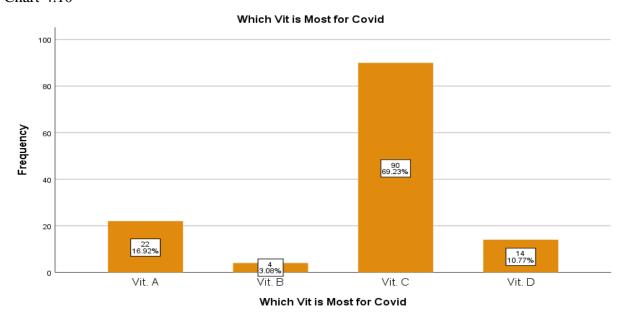
Table-4.9

Answer	Frequency	Percentage
Yes	112	80.0
No	26	18.6
140	20	18.0

These table showing how much people like to eat enough leafy and non-leafy vegetable percentage. Highest number of people say yes, they like to eat enough leafy and non-leafy vegetable and there percentage were 80. And 26(18.6%) people say no, they didn't like to eat enough leafy and non-leafy vegetable.

4.10 Which Vitamin is mostly neede For Covid-19.

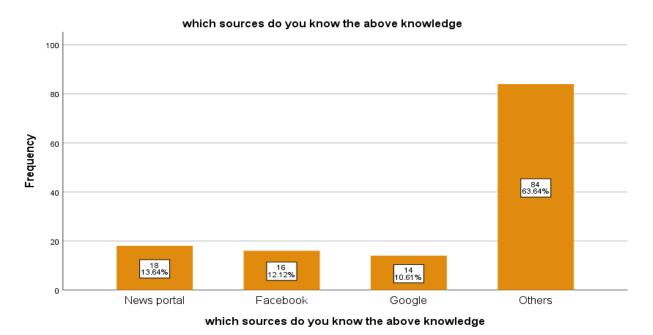
Chart-4.10



These table showing about most important vitamin for Covid-19.Vitamin C was most important for human in these pandemics situation because its increases our immune system and the percentage of vitamin C were 90(64.3%), Secondly important vitamin for covid was Vitamin A 22(15.7%), the percentage of Vitamin D Were 14(10.0%) and the last not for least the percentage of Vitamin B were 2.9%.

4.11 which sources do you know the above knowledge

Chart-4.11



These table showing which sources people know the above knowledge percentage. The highest number of people known others sources percentage of 60. 18(12.9%) of people known above of knowledge of news portal. People known above of knowledge from facebook and google the percentage were 11.4 and 10.

4.12 Child or any family members any primary nutritional disease

Table-4.12

Answer	Frequency	Percentage
Yes	32	22.9
No	104	74.3

In this table showing the percentages of respondent's family member or child has any primary nutritional diseases. About 74.3% said No and 22.9% said Yes.

4.13 Others Diseases

Table-4.13

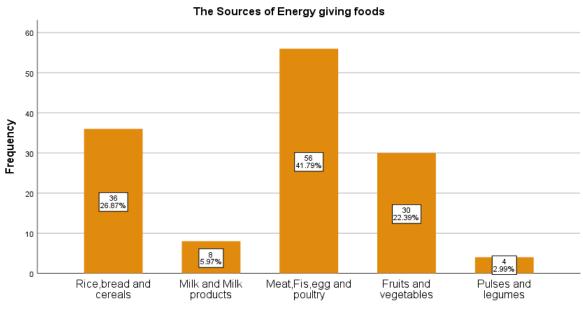
Diseases Name	Frequency	Percentage
Anemia	20	14.3
Scurvy	6	4.3
Goiter	2	1.4
Others	102	72.9

Here we can seen that percentage of other diseases. About (72.9%) people were suffering from 'Others' means various types of diseases, 20(14.3%) people were suffering from the diseases of Anemia. About the diseases of Scurvy and Goiter 6(4.3%) and 2(1.4%) people were Suffering from.

5. Information about dietary knowledge of the respondents

5.1 The Sources of Energy giving foods

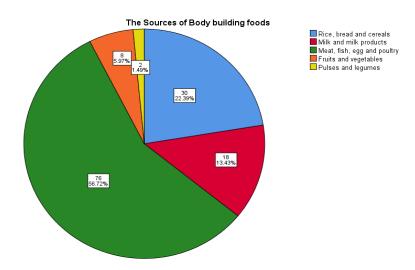
Table- 5.1



The Sources of Energy giving foods

These table we can saw the percentage of the Sources of Energy giving foods that respondents select. The highest number of sources of energy giving food were Meat,Fis,egg and poultry 56(40%), Rice,bread and cereals 36(25.7%), Fruits and vegetables 30(21.4%), dairy product 8(5.7%) and Pulses and legumes 4(2.9%).

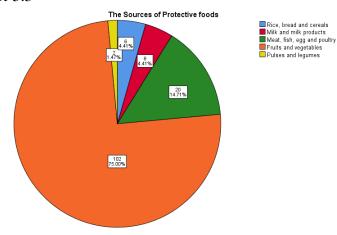
5.2 The Sources of Body building foods Chart-5.2



These table we can saw the percentage of the Sources of Body building foods. The highest number of the Sources of Body building foods were Meat, Fish, egg and poultry 76(54.3%), Rice, bread and cereals 30(21.4%), Milk and milk products 18(12.9%), Fruits and vegetables 8(5.7%) and Pulses and legumes 2(1.4%)

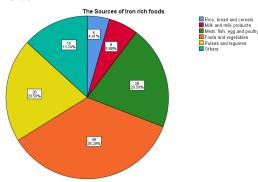
5.3 The Sources of Protective foods

Chart-5.3



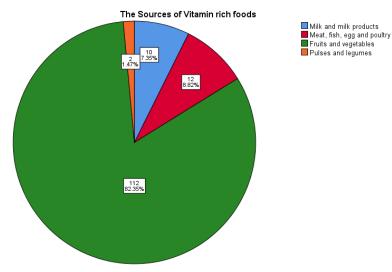
These table we can saw the percentage of the Sources of Protective foods. The highest number of the Sources of Protective foods were Fruits and vegetables 102(72.9%), Meat, fish, egg and poultry 20(14.3%), Rice, bread and cereals and Milk and milk products were same 6(4.3%) and Pulses and legumes 2(1.4%).

5.4 The Sources of Iron rich foods Chart-**5.4**



These table we can saw the percentage of the Sources of Iron rich foods. The highest number of the Sources of Protective foods that were that respondents select Fruits and vegetables 48(34.3%), Pulses and legumes & Meat, fish, egg and poultry 28(20%).

5.5 The Sources of Vitamin rich foods Chart-5.5



These table we can saw the percentage of the Sources of Vitamin rich foods.

.About 80% respondent answered Fruits and vegetables .Meat, fish, egg and poultry, Milk and milk products, Pulses and legumes answered by 8.6%, 7.1% & 1.4%.

6. Crosstabulation

Monthly Income wise Know about Iodine Deficiency Crosstab

Table 6.1

Income	Yes	No	Total
0-10000	2	4	6
11000-20000	18	6	24
21000-30000	28	12	40
more	56	4	60

These table showing the percentage of monthly Income basis Known about Iodine Deficiency. Here we can notice that high range of monthly income that most of people were known about iodine deficiency. Those people monthly income more than (21000-30000),total person 60 and 56 person say yes and 4 person say no. 21000-30000 tk monthly income total person 40 and 28 say yes and 12 person people are say no. which people monthly income were 11-20000 total person 24 and 18 say yes they are known about iodine deficiency and 6 person were say no. And the last not the least those people monthly income 0-10000 total people were 6 and 2 people say yes and 4 person says no.

Monthly Income wise Gave vit A capsule two times per year Crosstabulation

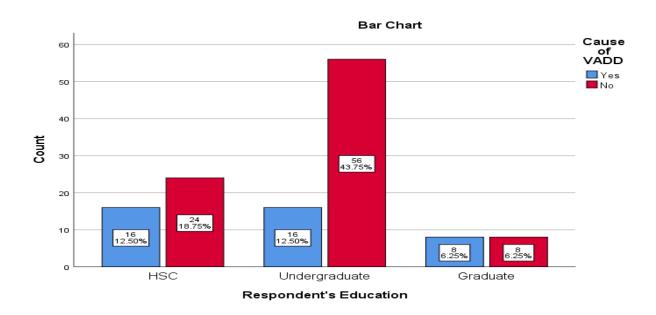
Table-6.2

Income	Yes	No	Total
0-10000	2	4	6

11000-20000	18	6	24
21000-30000	30	10	40
more	36	28	64

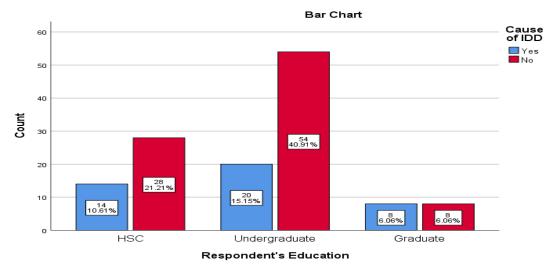
These table showing the percentage of monthly Income basis gave vitamin A capsule two times per year. Here we can notice that high range of monthly income that most of people were known about vitamin A. Those people monthly income more than (21000-30000),total person 64 and 36 person say yes and 28 person say no. 21000-30000 tk monthly income total person 40 and 30 person say yes and 10 person people are say no. which people monthly income were 11-20000 total person 24 and 18 say yes they are known about vitamin A capsule and 6 person were say no. And the last not the least those people monthly income 0-10000 total people were 6 and 2 people say yes and 4 person says no.

Respondent's Education wise Cause of VADD,IDD,IDA Crosstabulation Chart 6.1



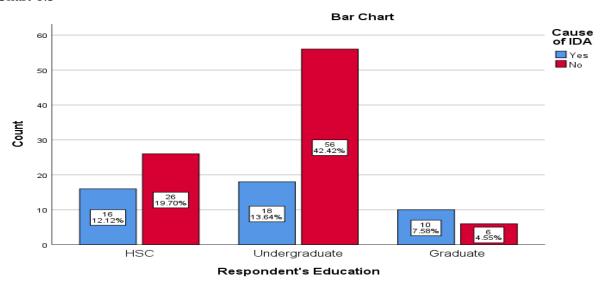
These table showing the percentage of Respondent's Education * Cause of VADD. Highest number of undergraduate total student 72, 16 students were known about causes of VADD they say yes and 56 students were saying no they didn't know about causes of VADD. HSC total student 40, 16 students were known about causes of VADD they say yes and 24 students were saying no they didn't know about causes of VADD. And the last not the least Graduate total student 16, 8 students were known about causes of VADD they say yes and 8 students were saying no they didn't know about causes of VADD.

Chart-6.2



These table showing the percentage of Respondent's Education * Cause of IDD. Highest number of undergraduate total student 74, 20 students were known about causes of IDD they say yes and 54 students were saying no they didn't known about causes of IDD. HSC total student 42, 14 students were known about causes of IDD they says yes and 28 students were says no they didn't known about causes of IDD. And the last not the least Graduate total student 16, 8 student were known about causes of IDD they says yes and 8 students were says no they didn't known about causes of IDD.

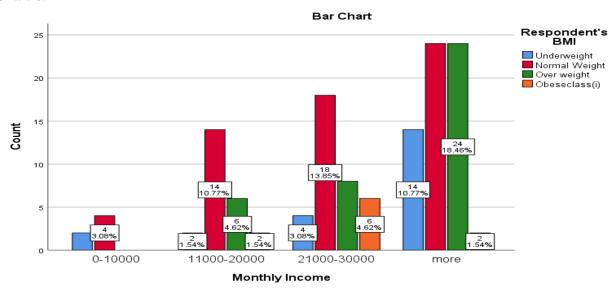
Chart 6.3



These table showing the percentage of Respondent's Education * Cause of IDA. Highest number of undergraduate total student 74, 18 student were known about causes of IDA, they says yes and 56 students were says no they didn't known about causes of IDA. HSC total student 42, 16 student were known about causes of IDA they says yes and 26 students were says no they didn't known about causes of IDA. And the last not the least Graduate total student 16, 10 student were known about causes of IDA they says yes and 6 students were says no they didn't known about causes of IDA.

Monthly Income wise Respondent's BMI Crosstabulation

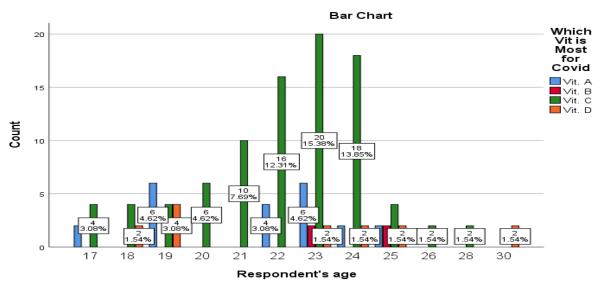
Chart 6.4



In this table, Total respondents were 130. 64 peoples household head's monthly income is Fourty Thousand plus. 24 were normal weight, over weight were also 24.But on the other hand, whose income 0-40000 there over weight percentage were much lower than them.

$Respondent's \ age \ wise \ Which \ Vit \ is \ Most \ for \ Covid \ Crosstabulation$

Chart 6.5



In this table, Total respondents were 130. Mostly respondent age were 22-24. From 72 respondents 54 people were answered Vitamin C, that means 60% of people were answered Vitamin C.

Chapter-5

Discussion:

I conducted a survey on Knowledge, Attitude and Practices about Micronutrient Deficiency Diseases among the Selected Households. I then began to analyze the data to gather accurate percentages and information from all participants.

This was where the maximum proportion of normal weight is 62 (44.3%), the overweight is 28.6 and the last underweight is 22 (15.7 percent). 96(68.6%) people say no, they didn't known about Micronutrient Deficiency Diseases. 106(75.7%) people say yes, they had knowledge about Iodine Deficiency. 86 (61.4%) persons answer yes, vitamin A capsule has been given twice a year to children. But 52 people answer no (37.1 percent), children were not given the vitamin A capsule twice a year. The highest number 90(64.3%) of people say no, they didn't known about Cause of VADD. About 65% of individuals said no, they didn't know about IDD Cause. (64.3%) of people say no, they didn't known about Cause of IDA. Vitamin C has become the most essential human vitamin in these pandemics as our immune system has increased by a 90 vitamin C percentage (64.3%), Vitamin A 22 (15.7%) and vitamin D 14 vitamin D percent (10.0%) and last but least 2.9% vitamin B percent. 60 (12.9 percent) of people known above through others sources.18(12.9%) of people known above of knowledge of news portal. Number of persons known from Facebook and Google was 11.4 and 10.

The age distribution of the respondents revealed that the majority (66.5 percent) of the respondents were between the ages of 30 and 39, and that the majority (96.9 percent) of the respondents were female, while just 3.1 percent were male. About 52.5 percent of them had a medium education, i.e. a graduate degree, and 31.9 percent had a high school degree. Distribution of such respondents' family type and 73 percent were from the single family, while the remaining respondents were from the common family. Some 37,40% of the family size of the person interviewed was small (< 5), some 33,00% of the family members were 5-8, and some 29,60% of all households. The malnutrition prevalence among interviewees. The standard nutritive state of the bmi was examined, with just 2.9% experiencing severe malnutrition.54.3% of respondents (n=385) had (BMI51). [6]

Chapter-6

Conclusion:

The major goal of this study was KAP about Micronutrient Deficiency Diseases among the Selected Households in Dhaka City. This Study cannot gather more data for the epidemic, but I do my best to acquire a set number of data points. The KAP concerning micronutrient deficiencies among selected families was average, however there was some gap between knowledge and conduct in several circumstances. It appears that we need to pay more attention to this aspect in order to boost community KAP. To tackle the complicated situation, a variety of interventions are required. National governments must work together to combat Micronutrient

Deficiency Diseases; otherwise, it will not receive the attention it needs. We need additional campaigns in that sector, similar to the Vit. A Campaign, and people need to be more aware of MDD. In this context, the private sector's efficacy is essential. There are lots of NGO who's works for the health sector and they should be taken much more attempt in that sector. Micronutrients should be incorporated in the education system, and instructors should be used to transmit information to students.

Chapter-7

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Questionnaire

"Knowledge, Attitude and Practices about Micronutrient Deficiency Diseases among the Selected Households"

A) Background information

Id No

- **1.** Name of the respondent :
- 2. Respondent's sex : Male / Female
- **3.** Respondent's age:
- **4.** Educational qualification of the respondent:
- **5.** Name of the household head:
- B) Socio economic information of respondent's family:
- **6.** Family type: Nuclear / Joint
- 7. Number of family numbers:
- **8.** Religion:
- **9.** Respondent's occupation :

- **10.** Household head's occupation : 11. Monthly income of the family: **12.** Monthly expenditure of the family: a) education cost: b) food cost: c) total cost: C) Anthropometric information of the Respondents: 13. Weight in Kg: **14.** Height in cm: **15.** BMI in cm: D) KAP about micronutrient deficiency diseases **16.** Do you know the types of micronutrient deficiency diseases? Yes/No 17. Which are the micronutrient deficiency diseases? A) VADD, B) IDD, C) IDA d) Scurvey, e) Pellagra f) Rickets g) Others (Please specify----) **18.** Do you know about iodine deficiency? YES / NO **19.** What types of salt you use for cooking in your family? a) Iodized salt b) non iodized salt c) don't know **20.** Did you gave vitamin A capsules two times per year? Yes/No **21.** Do you know what the main causes of VADD are? Yes/No 22. Do you know what the main causes of IDD are? Yes/No **23.** Do you know what the main causes of IDA are? Yes/No **24.** Do you regularly intake Vitamins enriched foods? Yes/ No; If yes what types---**25.** What food do you eat as rich source of vitamin A?
- **26.** Not to be iodine deficient what food do you eat?
- **27.** Do you eat enough leafy & non-leafy vegetables? Yes/ No
- **28.** From which sources do you know the above knowledge? ---------1. News portal 2. Google 3. Facebook 4. Others
- **29.** Have the child or any family members any primary nutritional disease? (**Observation by Interviewer**)
- **30.** a) anemia b) scurvy c) xeropthalmia d) goiter e) Others------

	Information about dietary kr What are the sources of energy a) Rice, bread and cereals	_	
	c) Meat, fish, egg and poultry	d) Fruits and vegetables	
	e) Pulses and legumes	f) Others	
32.	What are the sources of body to a) Rice, bread and cereals	building foods? b) Milk and milk products	
	c) Meat, fish, egg and poultry	d) Fruits and vegetables	
	e) Pulses and legumes	f) Others	
33.	What are the sources of protection a) Rice, bread and cereals	tive foods? b) Milk and milk products	
	c) Meat, fish, egg and poultry	d) Fruits and vegetables	
	e) Pulses and legumes	f) Others	
34.	• What are the sources of iron ri a) Rice, bread and cereals	ch foods? b) Milk and milk products	
	c) Meat, fish, egg and poultry	d) Fruits and vegetables	
	e) Pulses and legumes	f) Others	
35.	• What are the main sources of a) Rice, bread and cereals	Vitamins rich foods? b) Milk and milk products	
	c) Meat, fish, egg and poultry	d) Fruits and vegetables	
	e) Pulses and legumes	f) Others	
Date of	f interview		
sion			Interviewer's name and
sign			

The End