"MEDICINE CONSUMPTION PATTERN IN VARIOUS HOUSEHOLDS" – A SURVEY

A PROJECT SUBMITTED TO

NIRMA UNIVERSITY

In partial fulfillment of the requirements for the degree of
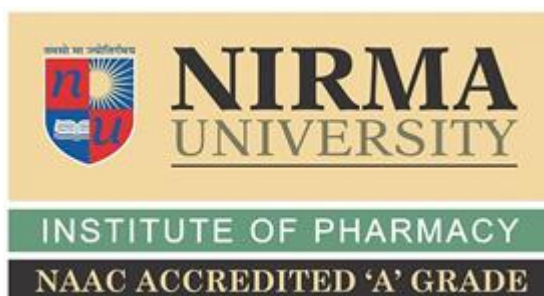
Bachelor of Pharmacy

BY

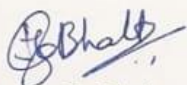## AGRAWAL ANUJ A. (16BPH006)

Semester VIII

UNDER THE GUIDANCE OF

Dr. Hardik Bhatt

INSTITUTE OF PHARMACY
NIRMA UNIVERSITY
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GUJARAT, INDIA

MAY 2020

CERTIFICATE

This is to certify that *"MEDICINE CONSUMPTION PATTERN IN VARIOUS IN VARIOUS HOUSEHOLDS"- A SURVEY* is the bonafide work carried out by AGRAWAL ANUJ (16BPH006), B.Pharm semester VIII under our guidance and supervision in the Institute of Pharmacy, Nirma University, Ahmedabad during the academic year 2019-2020. This work is up to my satisfaction.

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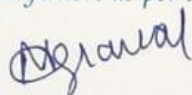Institute of Pharmacy, Nirma Univesity.

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Date: 03/05/2020

CERTIFICATE OF SIMILARITY OF WORK

This is to undertake that the B.Pharm. Project work entitled "MEDICINE CONSUMPTION PATTERN IN VARIOUS IN VARIOUS HOUSEHOLDS"- A SURVEY Submitted by AGRAWAL ANUJ (16BPH006), B.Pharm. Semester VIII is a bonafide research work carried out by me at the Institute of Pharmacy, Nirma University under the guidance of "Dr. Hardik Bhatt". I am aware about the rules and regulations of Plagiarism policy of Nirma University, Ahmedabad. According to that, the research work carried out by me is not reported anywhere as per best of my Knowledge.

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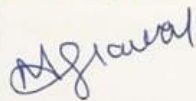Sarkhej-Gandhinagar Highway
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DECLARATION

I, *AGRAWAL ANUJ (16BPH006),* *student of VIIIth Semester of B.Pharm at Institute of Pharmacy, Nirma University, hereby declare that my project entitled "MEDICINE CONSUMPTION PATTERN IN VARIOUS IN VARIOUS HOUSEHOLDS"- A SURVEY is a result of culmination of my sincere efforts. I declare that the submitted project is done solely by me and to the best of my knowledge, no such work is done by any other person for the award of degree or diploma or for any other means. I also declare that all the information was collected from various primary sources (journals, patents, etc.) has been duly acknowledged in this project report.*

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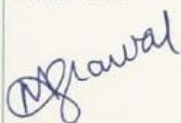Gujarat, India

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ACKNOWLEDGEMENTS

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ABSTRACT

The survey was conducted on current scenario of medicine consumption pattern in various households. A total of 29 questions was there in the survey which started with some basic questions like age, gender, occupation etc. The motive of the survey was to have an insight of the basic information related to medicine consumption pattern. The topic and questions was basically chosen to understand the trend because consumption of medicine is very common in every households nowadays. Some of the question were related to the meaning of prescription, OTC drugs, difference between online and offline pharmacy. The survey also covered what families preferred more between online and offline pharmacy to buy medicine, which age group and gender is consuming more medicines, average amount of money spend by the families.

The survey was circulated as a Google Form and link was also circulated via social media. A total 217 response was recorded and it covered diverse population with different backgrounds such as student, employed, businessman/businesswoman, housewife etc.

After completion of the survey each and every question were analyzed and after analysis we came to a conclusion about the current scenario on general topics.

1. INTRODUCTION TO SURVEY

1.1 What is a Survey?

Survey –Survey, basically is a collection of the data in form of questionnaire or interview from the small sample consisting of varying group of people to have a generalized result of the concerned topic to the overall population. A survey may contain predetermined set of question in case of questionnaire type of survey but in an interview, there is no predetermined questions. In order to overcome the survey bias, greater number of samples should be collected for better and true analysis. From all the sample collected the data provides the overview of the concerned topic.

There are 4 basic modern sample survey methods:

1) Sampling – they are the varying of people belonging to different profession through which data is collected and studied.

2) Inference – it is the conclusion after examining the data collected from the samples.

3) Measurement – it is the planning, strategy and art of asking the question for the questionnaire by which all the areas are covered related to the topic.

4) Analysis – it is the important part of the survey of analyzing all the data collected from sampling which helps in concluding the topic.

1.2 Survey Sampling –

Sampling, basically is a small proportion of population participating in the survey through which all the data is collected and analyzed. It is sample of the population rather than the entire population because it is impossible to cover all the population for a research or a project.

Sample is a subset of the population of collecting samples whose result may be presented to the larger population.

So, it is important to collect the sample from all the types of population belonging to different types of profession in order to have better result.

There are two types of survey sampling –

1) **Nonprobability sampling –** the selection of participants is done beforehand and not by chance. Therefore, every individual doesn't stand an equal chance to be selected in the sample. This type of samples will not lead to the generalized result and hence will be problematic to make inferences about the population.

2) **Probability sampling –** the selection of participants is random and by chance with each participant have zero probability of selection. Therefore, every individual stands a chance of being selected in the sample. This sampling is more accurate and provide better generalized result and inference to the population.

Further there are three types of probability sampling –

    i. **Simple random sampling –** this is the basic form of survey in which every individual has a change of being selected just like a lottery in which anyone can get a lottery.

    ii. **Stratified Sampling –** this is used when the researcher wants to represent different group of population. He will first divide the group of his/her interest then select sample on random basis.

    iii. **Cluster Sampling –** this is generally used to cut the cost when geographically it is impossible to conduct simple random sampling. For example, it is impossible to conduct face to face interview at every household in an area, therefore, area is selected randomly and different households are selected randomly.

1.3 Types of Survey –

1) **Questionnaire –** it constitutes of list of predefined question related to the topic which is majorly circulated online via email.

Some of the advantages are –

- Not time consuming, can easily be circulated
- Proper accumulation and analysis of data

Some of the disadvantages are –

- Only predefined question so there is no follow up question to the respondent.
- Some of the question might not be understood by the respondent.

2) **Interview –** it is one to one type of survey conducted by the interviewer to the respondent in which interviewer ask the questions related to the topic.

Some of the advantages are –

- Some of the follow up question can be asked to have a deeper insight of the topic.
- Attitude and behavior of the individual can be observed.

Some of the disadvantages are–

- It can be time consuming
- Accumulation and analysis of data is difficult

1.4 Survey administration methods:

1) **Online Survey –** it is a type of survey in which questionnaire is circulated via email or through the link via different social media apps. With technology growing day by day it is the most used method in today's time and helps in saving time immensely.

2) **Paper survey –** in this method the person conducting a survey ask each and every question personally to everyone.
   This method is less used as it is time consuming and tedious but on the other hand can be effective as well as non-predefined question can also be asked and can also cover wide public who don't have access to internet.

3) **One to one survey –** this survey is conducted between the interviewer and respondent. Interview depends upon the experience and knowledge of the interviewer to frame the question one after the other and have a deeper insight of the person and the concerned topic.

4) **Telephonic survey –** this survey is rarely used in today's world as it is time consuming and tedious with question being asked to the respondent on telephone and data is collected.

5) **Mail survey –** in this method survey form is sent to only few people as it reaches to only potential respondents who are associated with known address.

MEDICINE CONSUMPTION PATTERN IN VARIOUS HOUSEHOLDS: A SURVEY

SURVEY TYPE	ADVANTAGES	DISADVANTAGES
Mail	• easy and cost effective • more willingness by the respondents to share information as there is no interviewer	• low response rates • not advisable for low literacy population.
Phone	• access to different countries • better flexibility • being anonymous	• no visual material • inattentiveness by the receiver • very limited open-ended question due to time constraints
Online	• cost effective • quick • more convenient to respondents • more willingness by the respondents to share information as there is no interviewer • can design and customized the survey	• very limited sampling • chances of cooperation issues
Face to Face	• better response rates • attitude and behavior can be observed	• time consuming • expensive

1.5 Questionnaire Design –

They are of two types – closed ended and opened questions:

Closed ended questions –

- The respondents are provided with predetermined options to choose the answer from.

- For an example, a question contains just yes and no as an option or if a question is asked what is your gender. Such types of question are closed ended questions.
- Another example is how much you agree, "5" represents strongly agree and "1" represents strongly disagree.
- A likert scale is used in the example just above.
- Closed ended questions are preferred more due to the ease of counting the frequency of responses.

Open ended questions –

- In such types of question respondents needs to fill their own answer and there will be no predetermined options to choose from.
- Tell me something about of yourself, tell me something about your educations etc. are some of the examples of open-ended questions.
- But, there are some questions in which researcher provides some range or option and also provides a option to write if the answer of the respondent doesn't lie in the options.

1.6 Data Analysis –

After administration of survey and collection of data it's time for the analysis of data. It involves these steps –

1. **Data validation –** in this step one should not include the question which was least answered by all the respondents as it creates bias result. But it should include all the respondents who are answering all the remaining questions.
2. **Response partitioning** – Uniform subgrouping should be performed for easier and faster analysis. For example, the comparison between male and female response etc.
3. **Data coding –** it simply means converting the nominal and ordinal scale data in such a way that it leads to accurate survey data.
4. **Analyzing ordinal and nominal data –** ordinal scale basically is a five- or seven-point scale where in a five-point scale, "5" is considered as strongly agree and "1" is considered as strongly disagree. Nominal data is related to the percentage of response per category.

The online survey data can be recorded in excel or google sheet and different chart like pie chart, bar graph, line graph etc. of every question can be obtained and data can easily be analyzed.

1.7 Types of errors –

1. **Sampling error -** random and systematic error are the major errors in sampling errors also referred to as bias. Surveys often collect data from a target population. The aim of the survey is to make inference about the total population based on the response collected. But this is accustomed to random error because of chance variation. Chance variation is the difference between the sample value and true value of population mean. This can be reduced by increasing the sample size as this error cannot be eliminated.

2. **Sample design error –** it is a systematic error die to the problem in the sample design or sampling procedures. It includes frame errors, population specification errors and selection errors.

   - **Frame error –** frame is the list of population or individual from which units to be sampled are selected. This error is due to the inaccurate sampling frame. One of the examples in market research is use of a telephone directory as a sampling frame for a telephonic survey. This is an error as many households might not be using telephone or might have change the number.

   - **Population specific error –** this error arises due to wrong definition of population of sample is to be selected. The researcher announced the sample must be above 35 years. Later it was determined young population should also be included and thus sample must be 20 years or older.

   - **Selection error –** this error happens when the analyst has all the proper sampling frame but appropriate selection procedures are not correctly followed. For example, interviewer collects data from only rich people and not to the poor people as he thinks poor people might not understand the question. This leads to the selection error.

3. **Measurement error** – measurement error is the difference between the information obtained by the researcher and the actual information that the researcher wants.

4. **Nonresponse bias** - this occurs when the respondents in the sample do not respond. This is actually is the difference between the true and actual value.

5. **Response bias** – this error occurs due to the incorrect data provided by the respondents and hence misanalysed.

6. **Interview error** – interview error occurs when interviewer forcibly consciously or unconsciously influence a respondent to provide inaccurate statements. Hence, interviewer must be properly trained and supervised in order to avoid such errors.

7. **Input error** – input error occurs when wrong data is mistakenly entered in the computer and hence lead to wrong analysis.

1.8 Advantages and Disadvantages –

Advantages –

- They are comparatively easy to use and easy to administer.
- It helps in saving time as it can be developed in very less time.
- It is usually cost effective but may vary according to the survey mode.
- Data can be collected via online, mail, face to face, paper, telephone etc.
- Data can be collected from large number of populations.
- Numerous types of question can be asked related to the topic for the data analysis.
- They are relatively free from several types of errors.
- A wide range of data can be collected related to the topic.

Disadvantages –

- Respondents may not feel safe or be encouraged to provide correct and accurate answers.
- Respondents may be hesitant in providing the personal information.
- Customized survey has a high risk of containing different types of error.
- Some of the question might be interpreted wrongly by the respondents.
- Some of the questions might be misunderstood by the respondents.

- The information provided by the respondents might not be true.
- Data collected may be biased due to the non-response of certain question by the respondents.

2. ABOUT THIS SURVEY

This survey was conducted with the help of Google Form. The survey form was circulated via e-mail and link was also circulated in different social media. Paper survey was not able to conducted due to the COVID-19 Pandemic breakout. Responses were recorded, every question was analyzed and conclusion was drawn.

2.1 Basic information related to this survey -

Pharmacy - it is a branch of science dealing with preparation, dispensing, drug development, mechanism of action, uses and side effects of medicinal drugs. It is a health profession to increase the productivity of the drugs.

Pharmacist- they are experts belonging to health profession commonly known as druggist. They are responsible to bring about more effective use of old or the new drugs, monitoring of the drugs and drug development.

Online pharmacy - Online pharmacy also known as internet pharmacy in which the person can avail their requirement of medicines via just an application in the mobile sitting at their respective places over the prescription.

Offline pharmacy- Offline pharmacy which are the community pharmacist our very own local chemist which provide you the medicine over the prescription after visiting their medical shop.

OTC drugs- The drugs which are dispensed by chemist without the prescription to the consumers.

Prescription- A prescription is an authorized paper having names of medicines prescribed by the doctor to be bought by the patients.

Generic drugs and branded drugs - Generic drugs and branded drugs are equally potent with same formulation. The difference is that generic drugs are cheaper than branded drugs. Branded drugs are expensive due to the development and marketing of drugs.

3. AIM&METHODOLOGY

3.1 Aim of the research

The aim of the survey was to find out the current consumption pattern of medicine in various households i.e. the regular pattern in different families related to medicines like amount of money spent by family on medicines, their preference in terms of online or offline pharmacy or generic drugs or branded drugs and various other day to day basic question related to medicines and to draw conclusion from the response obtained from the survey.

3.2 Methodology

- The data was collected through the google form which has a total of 217 individual responses.
- This data contains very basic open ended and closed ended question which can be answered by anyone without prior knowledge of research.
- Respondents belongs to various backgrounds like professors, students, businessman/businesswoman, employed, housewives etc.
- Survey was circulated via email and link was also circulated in different social media.
- The data was collected from all the response and was converted to pie chart, bar graph for the analysis.

4.SURVEY FORM

What is your age?   *

○ Below 20 years

○ 21-40 years

○ 41-60 years

○ Above 60 years

What is your gender?   *

○ Male

○ Female

○ Transgender

○ Prefer not to say

What is your occupation? *

○ Student

○ Employed

○ Businessman/Businesswoman

○ Other...

Do you know who is called Pharmacist? *

○ Yes

○ No

Do you know what is online pharmacy? *

○ Yes

○ No

Do you know the difference between online pharmacy and offline pharmacy? *

○ Yes

○ No

Do you understand the meaning of prescription? *

○ Yes

○ No

Do you understand what are OTC drugs? *

○ Yes

○ No

Does any of your family member takes medicine daily? *

○ Yes

○ No

If answer to the above question is yes, then how many members?(If answer is no then tick not applicable) *

○ 1-2

○ 3-4

○ Not Applicable

○ Other...

How much do your family spend per month on *
medicines?

○ Under Rs1000

○ Rs1000-Rs5000

○ Rs5001-Rs10000

○ More than Rs10000

How often do you buy medicines? *

○ Once a week

○ Once a month

○ Dont buy medicine

○ Other...

Which age group is consuming more medicines at your home? *

◯ Under 20 years

◯ 20-40 years

◯ 41-60 years

◯ Above 60 years

Who is consuming more medicine at your home? – Gender wise *

◯ Male

◯ Female

⋮⋮⋮

Do you immediately visit a doctor in case of illness or self medicate? *

○ Visit doctor immediately

○ Self Medicate

⋮⋮⋮

Do you check the composition of the medicine * before taking it? (for eg the content of paracetamol or any API)

○ Always

○ Sometimes

⋮⋮⋮

Do you complete the dose of antibiotics after * getting well?

○ Always

○ Sometimes

Do you prefer to take medicine even during minor disease conditions like pain/headache? *

◯ Yes

◯ No

What do you prefer more? *

◯ Generic Drugs (Eg - Paracetamol)

◯ Branded Drugs (Eg - Vicks, Disprin)

What do you prefer more? *

◯ Online Pharmacy

◯ Offline Pharmacy (local chemist)

Are you influenced by the brand ambassador *
who are endorsing medicines through various
Apps /online? (Example – M.S.Dhoni in
Netmeds)

○ Yes

○ No

○ Sometimes

○ Dont use online pharmacy

How close is chemist shop from your home? *

○ Around 100m

○ Around 500m

○ Around 1000m

○ Around 1500m

What % of discount is offered by the LOCAL CHEMIST on the total bill? *

○ ≤10%

○ ≤20%

○ ≤30%

○ No Discount

What % of discount is offered by the ONLINE PHARMACIST on the total bill? *

○ ≤10%

○ ≤20%

○ ≤30%

○ Other...

What are the advantages of buying medicine from LOCAL CHEMIST?(can choose more than one option) *

- [ ] trust

- [ ] on the spot availability

- [ ] allows few days credit

- [ ] don't buy from local chemist

What are the advantages of buying medicine from ONLINE PHARMACY? (can choose more than one option) *

- [ ] Greater discount

- [ ] Door service

- [ ] Trust

- [ ] Don't use online pharmacy

What is the estimated time taken by the online *
pharmacy to deliver the medicine at your
doorstep?

○ Same day

○ 1 Day

○ 2 Day

○ More than 2 Days

Who has the wider range and availability of *
medicine?
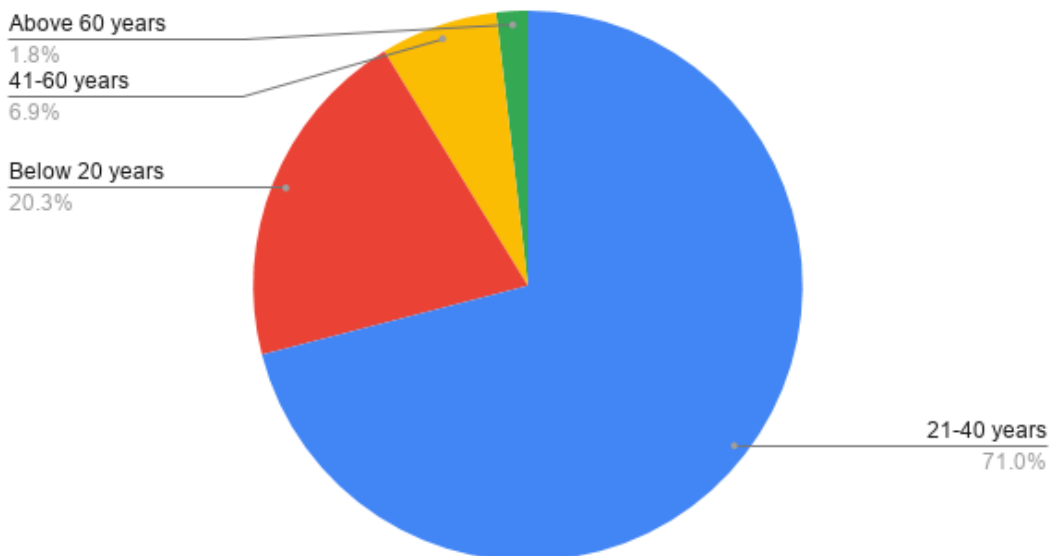
○ Online Pharmacy

○ Offline Pharmacy (local chemist)

Who has the wider range of other basic daily necessity product apart from medicine? Eg- body lotion etc *

◯ Online Pharmacy

◯ Offline Pharmacy (local chemist)

5.DATA ANALYSIS

Q1-

Count of What is your age?

From the pie chart we can say that the majority of the respondents belonged to the group of 21-40 years which comprise of 71% of total participants. The next higher respondents belong to the age group of below 20 years comprising of 20.3%.

The age group of 41-60 years comprises of 6.9% whereas above 60 years has a say about 1.8%.

Therefore, we can say that maximum number of survey form is filled by the age group belonging to 21-40 years.

Q2-

Count of What is your gender?
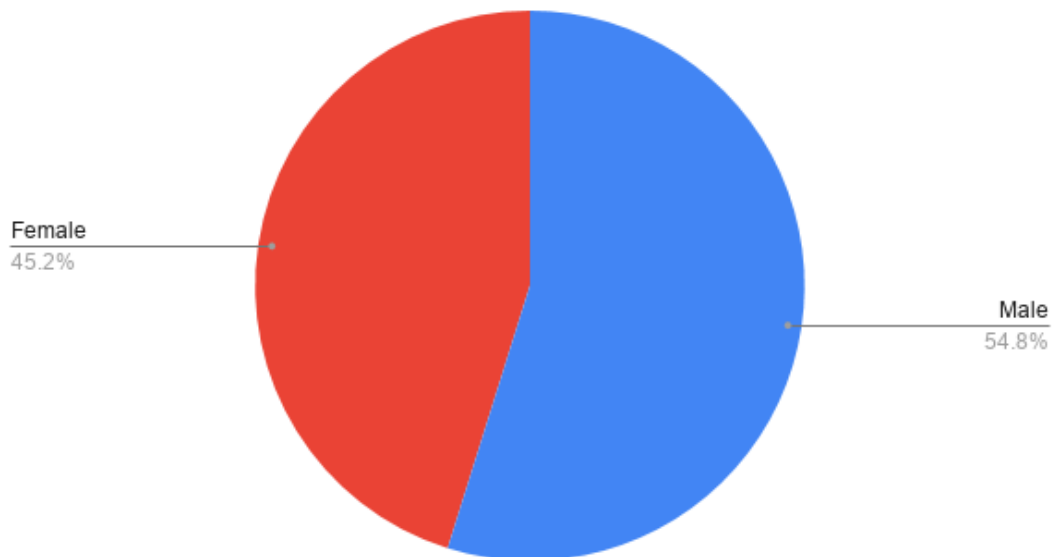
The above pie chart is related to the gender participation in the survey, it helps us to know the gender of the individual who participated in the survey research.

From the pie chart we can clearly say that male participants are more than female participants.

Out of the total participants there were 54.8% male and rest were 45.2% females.

Q3-

Count of What is your occupation?
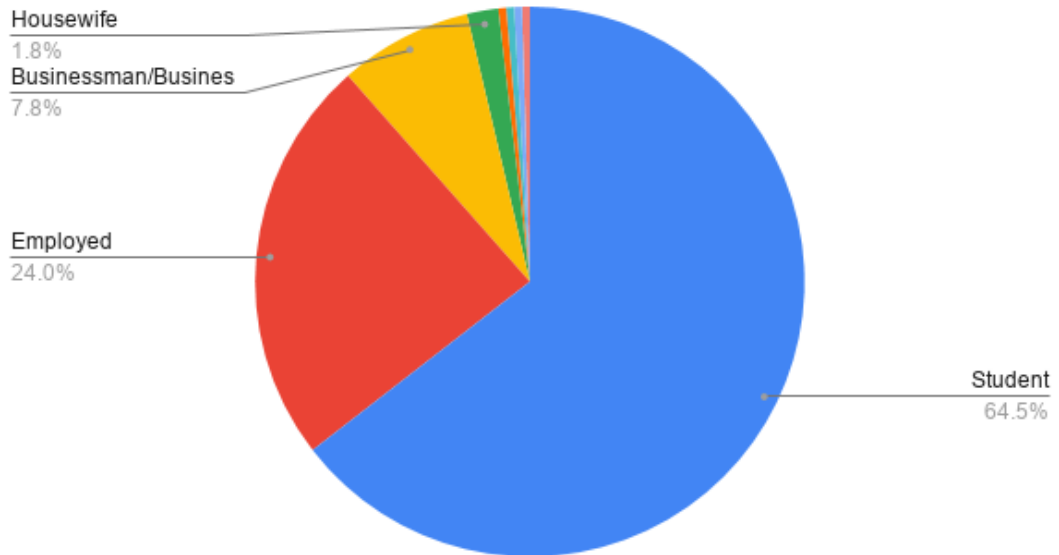
The above pie chart is related to the occupation of the participants who participated in the survey research. Out of the total participants majority are the students comprising of 64.5%.
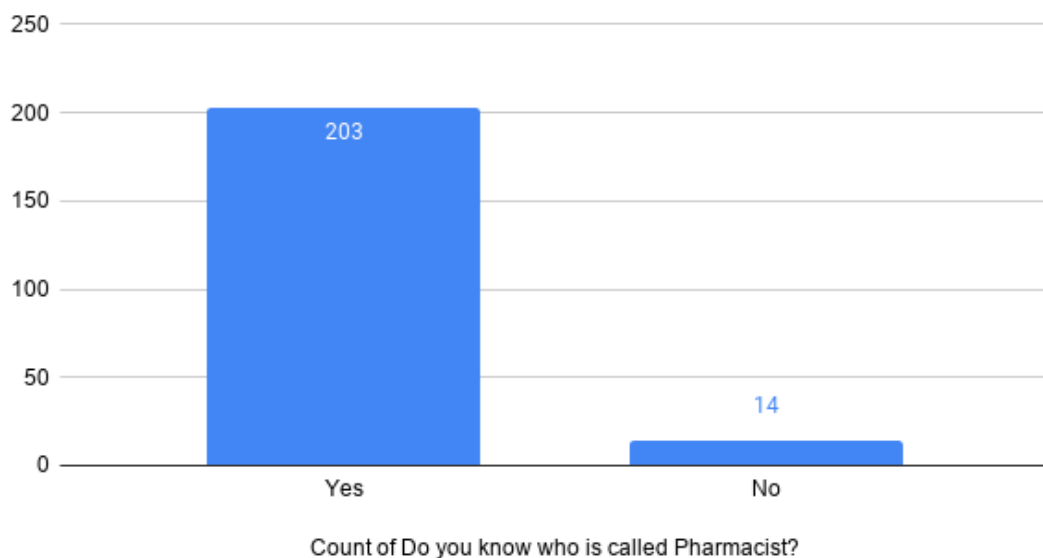
24% of the participants are employed at various sectors. Businessman/Businesswoman comprises of 7.8% of the total participants. The other category is just 1.8% which includes Housewives or Homemaker.

Q4-

Count of Do you know who is called Pharmacist?

Count of Do you know who is called Pharmacist?
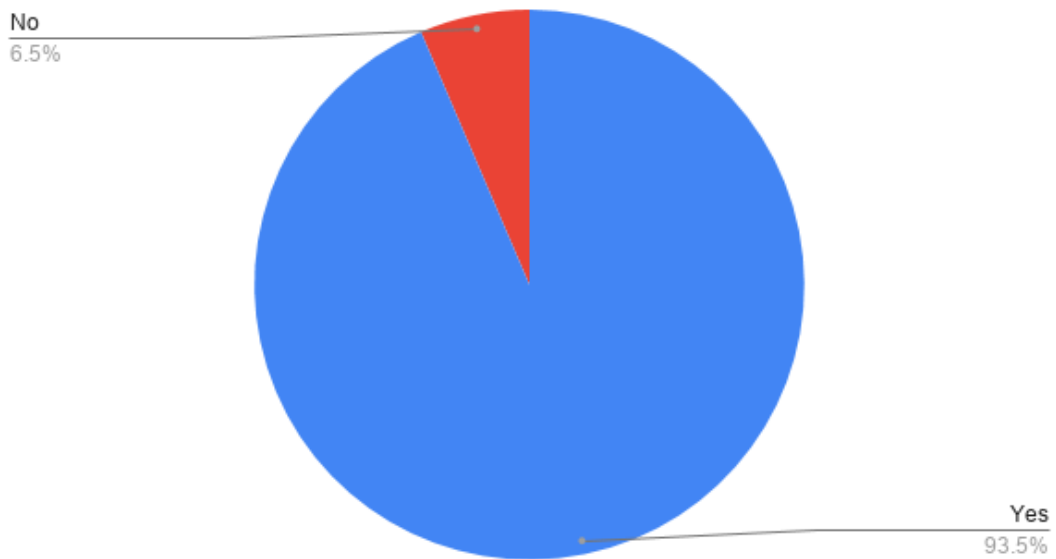
Count of Do you know who is called Pharmacist?

The above pie chart is related to the basic question where whether the participants are aware of Pharmacist or not.

93.5% of the participants i.e. 203 participants know who is called Pharmacist and 6.5% (14 participants) don't know who is called participants which is a small number but strange that even 14 participants don't know who is a Pharmacist.

Q5-

Count of Do you know what is online pharmacy?

No
9.2%

Yes
90.8%

Count of Do you know what is online pharmacy?
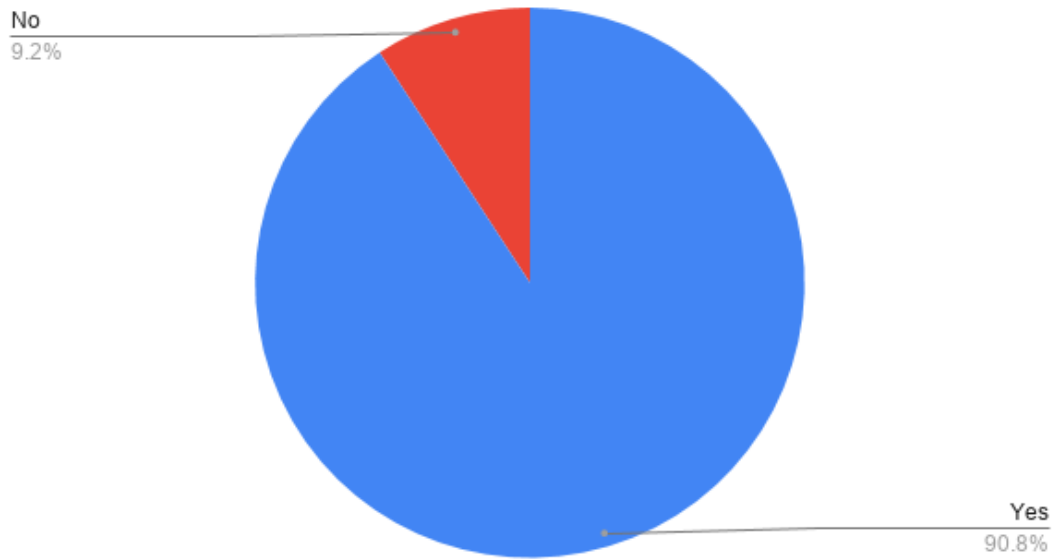
Count of Do you know what is online pharmacy?
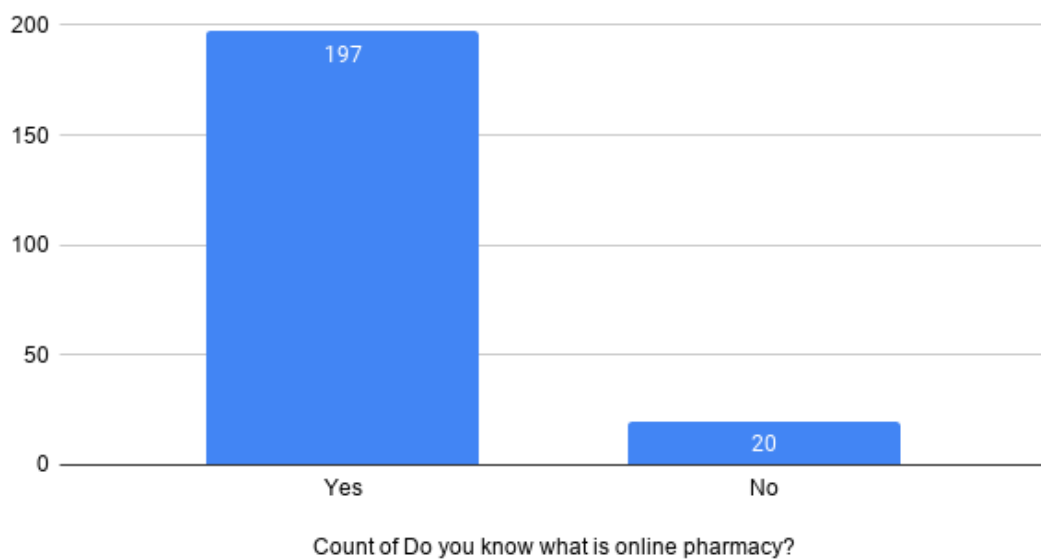
The next question of the survey is related to the online pharmacy. Online Pharmacy is a type of pharmacy in which you can have access to your medicine at your doorstep via online app or website (Eg – Medlife, Pharmeasy, Netmeds etc.)

Out of the total response 90.8% of participants are aware of online pharmacy whereas 9.2% of participants are still unaware of it which is unusual in today's scenario.

Q6 –

Count of Do you know the difference between online pharmacy and offline pharmacy?


No
13.4%

Yes
86.6%
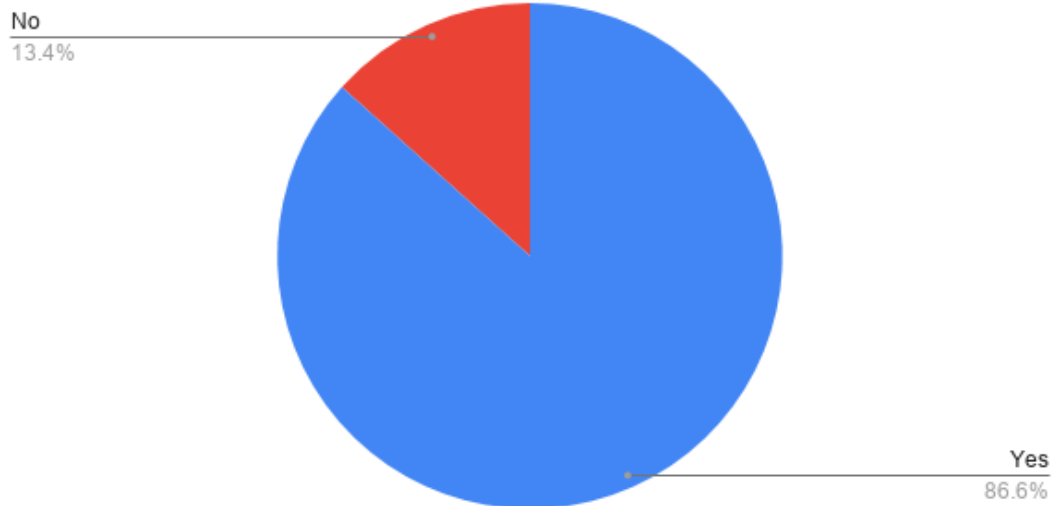
This question is somewhat related to the previous question but still a different question. This question is related to the difference between the online and the offline pharmacy, whether the participants are aware of the difference.

Out of data collected 86.6% participants are able to differentiate between online and offline pharmacy and 13.4 are still unaware of the differences.

Q7-

Count of Do you understand the meaning of prescription?

No
3.2%

Yes
96.8%
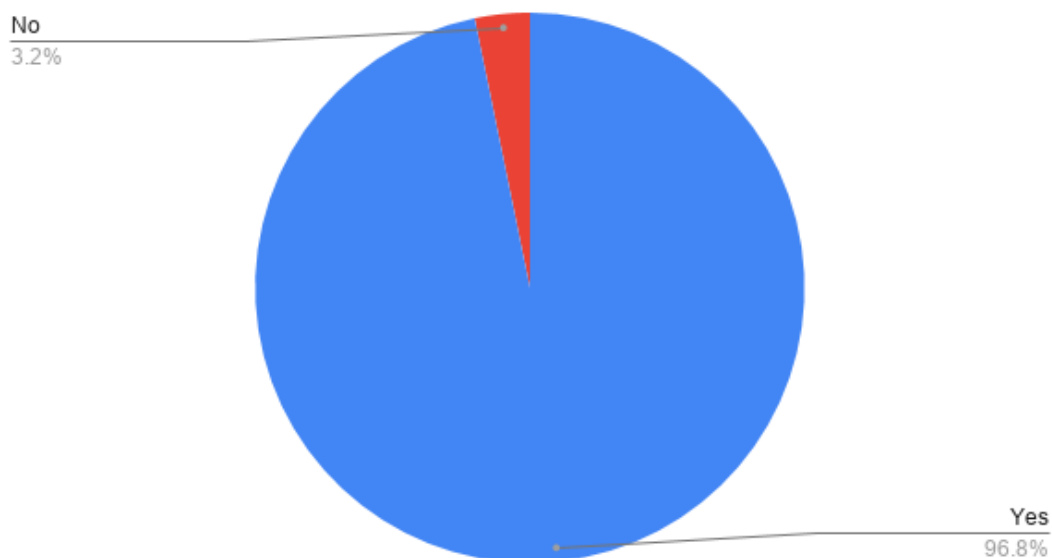
This is a very basic question and majority of the participants must know the meaning of prescription. A prescription is form of a paper which contain a list of medicine prescribed by the doctor.

Out of the data collected roughly 97% of the participants know the meaning of prescription and remaining 3% are still finding the answer.

Q8-

Count of Do you understand what are OTC drugs?

No
35.0%

Yes
65.0%
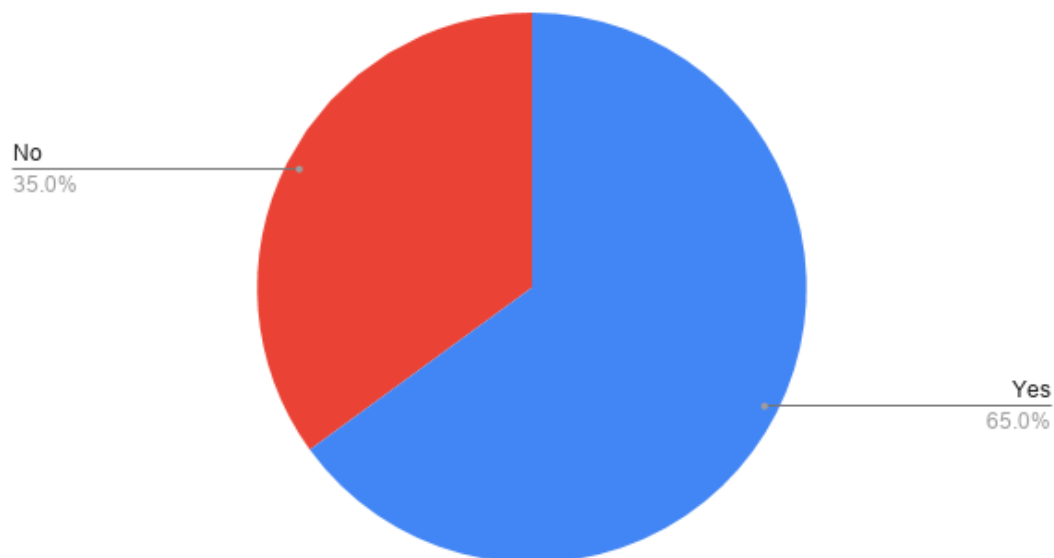
The above pie chart is related to the OTC drugs, whether the population are aware about the OTC drugs or not.

OTC drugs i.e. over the counter drugs which are available to the patients without the prescription prescribed by the Physician.

Out of the data collected 65% of the participants are aware of the OTC drugs and remaining 35% are still unaware.

35% participants might be knowing about the drugs which are available without prescription but not familiar with the terminology of OTC drugs.

Q9-

Count of Does any of your family member takes medicine daily?
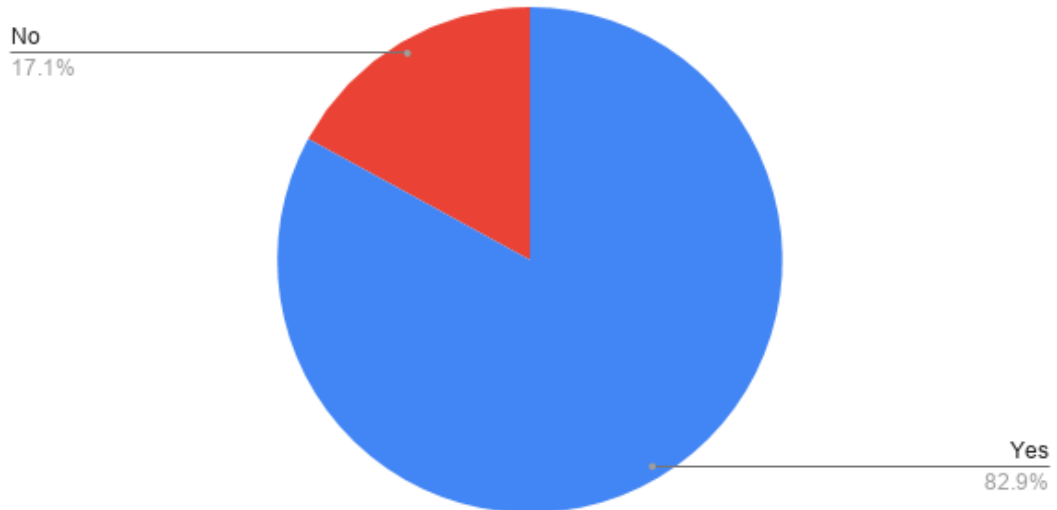
This question is related to the consumption of medicine on daily basis. The above pie chart provides us the data related to whether any member of the families is consuming medicine daily or not. This is an important question as there are many diseases in which one has to consume medicine daily such as diabetes, blood pressure, cancer etc.

Out of the data collected 83% of the at least one member of the family is consuming medicine daily and remaining 17% is not consuming on a daily basis or not consuming at all except for some common illness.

Q10-

Count of If answer to the above question is yes, then how many members?(If answer is no then tick not applicable)

3
0.5%
Not Applicable
16.1%

3-4
17.1%

1-2
66.4%
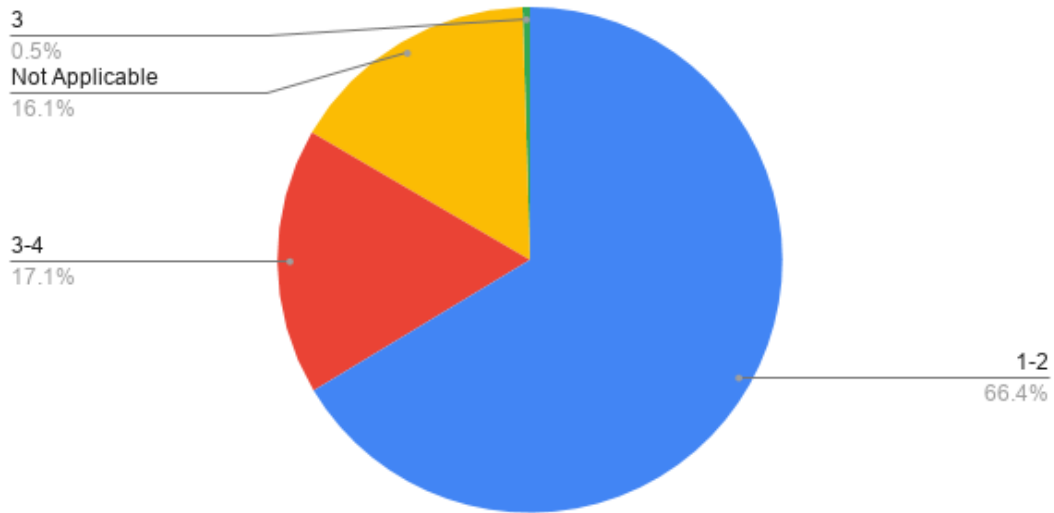
This question is related to the previous question. This question is basically related to the number of members who are consuming medicine daily.

Around 1-2 family's members which comprises of 66.4% are consuming medicine daily which is still is a high value.

17.1% belongs to the category of 3-4 family's members consuming medicine daily which is a staggering value may be due to the inactive lifestyle, stress, heredity etc.

16% of the family's members do not consume medicine daily which is rare in today's scenario but good news and hence not applicable for this question.

Q11-

Count of How much do your family spend per month on medicines?

More than Rs10000
4.1%

Rs5001-Rs10000
5.1%

Under Rs1000
44.2%

Rs1000-Rs5000
46.5%

Count of How much do your family spend per month on medicines?
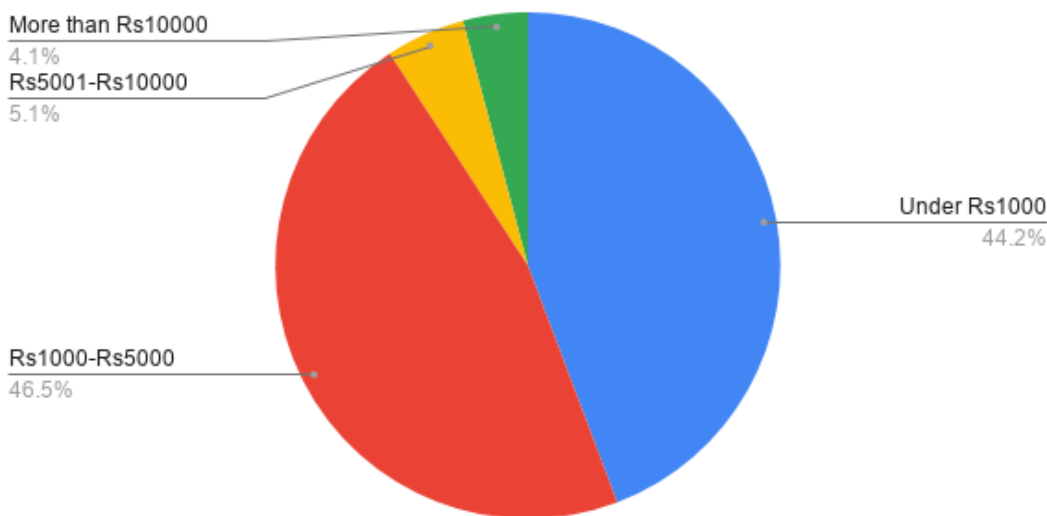
Count of How much do your family spend per month on medicines?
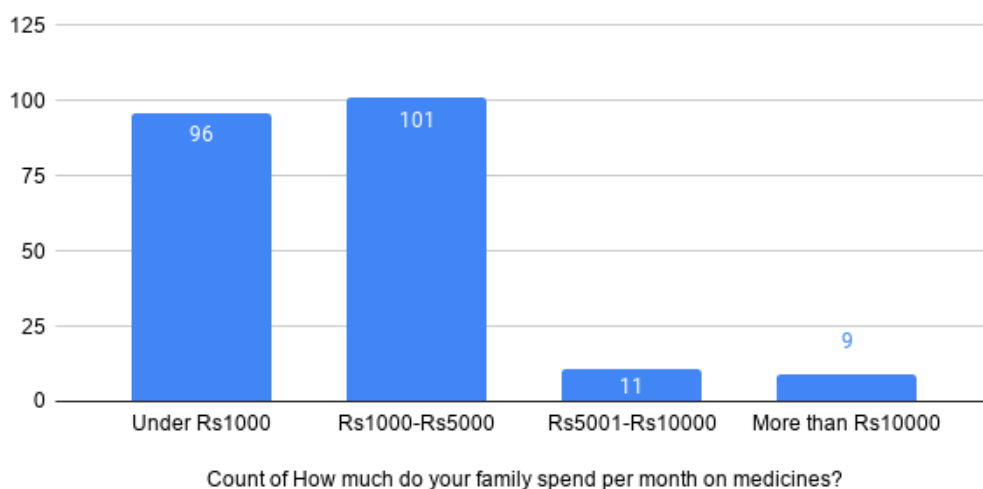
This question was basically chosen to have an overview of average amount spent by the families per month on medicines.

Out of the total data collected 46.5% participant's families spent around Rs1000-Rs5000 on medicines per month which is considered normal in today's scenario.

44.2% participant's families spent less than Rs1000 on medicines per month which is on the lower side as compared to the others. Data collected also has the families spending Rs5001-Rs10000 and more than Rs10000 on medicines per month which is roughly around 5% and 4% respectively.

Q12-

Count of How often do you buy medicines?
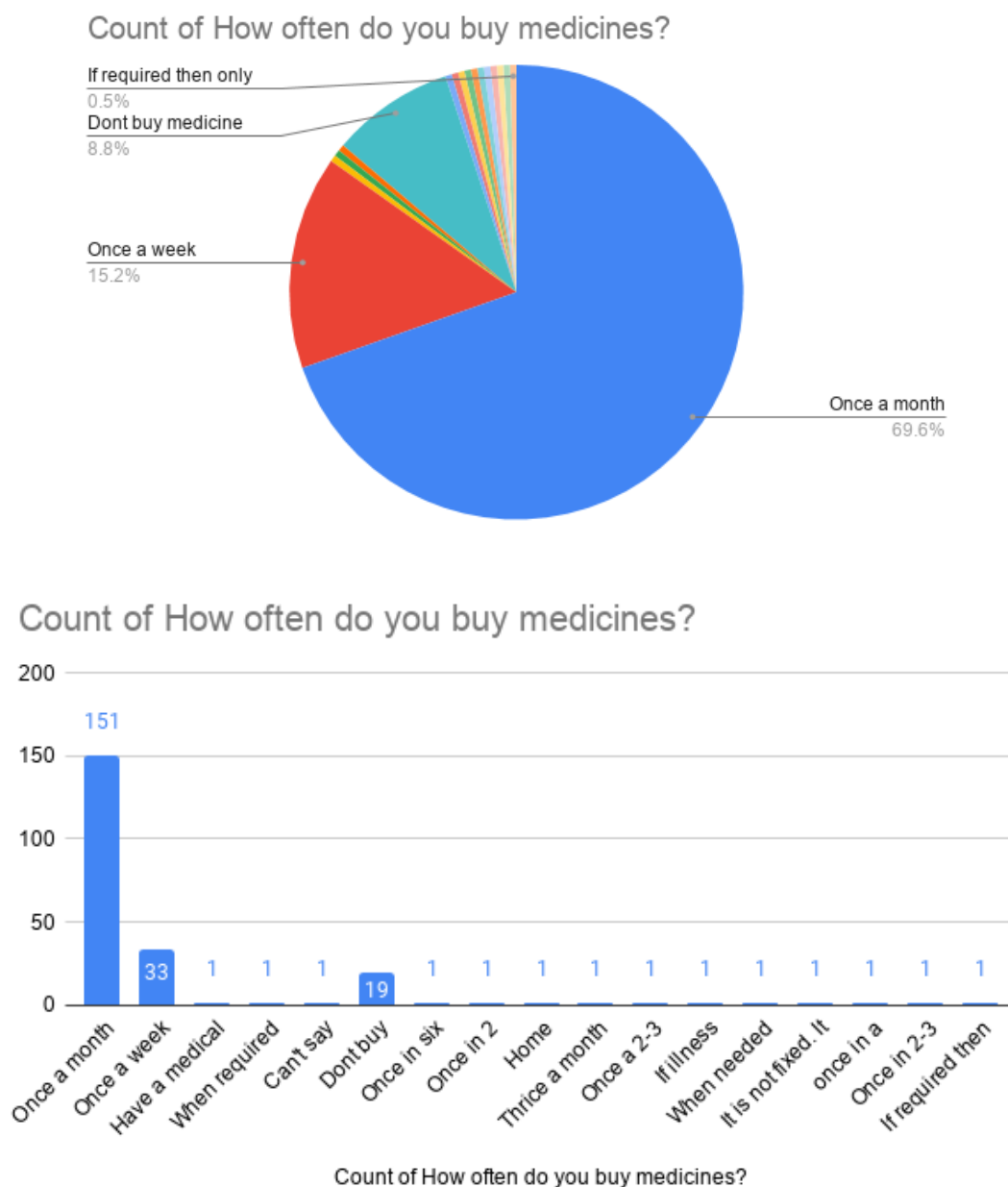
This question gives us the overview about the frequency of the medicines bought by the families.

Out of data collected majority of the families buys medicine once a month which comprises of 69.6% of the total responses.

15.2% families buy medicines every week and there are families which don't buy medicines unless and until if required due to illness which comprises of around 10% and remaining are those that buys once in 6 months, once in two months, thrice a month, itself owns a medical shop etc.

Q13-

Count of Which age group is consuming more medicines at your home?
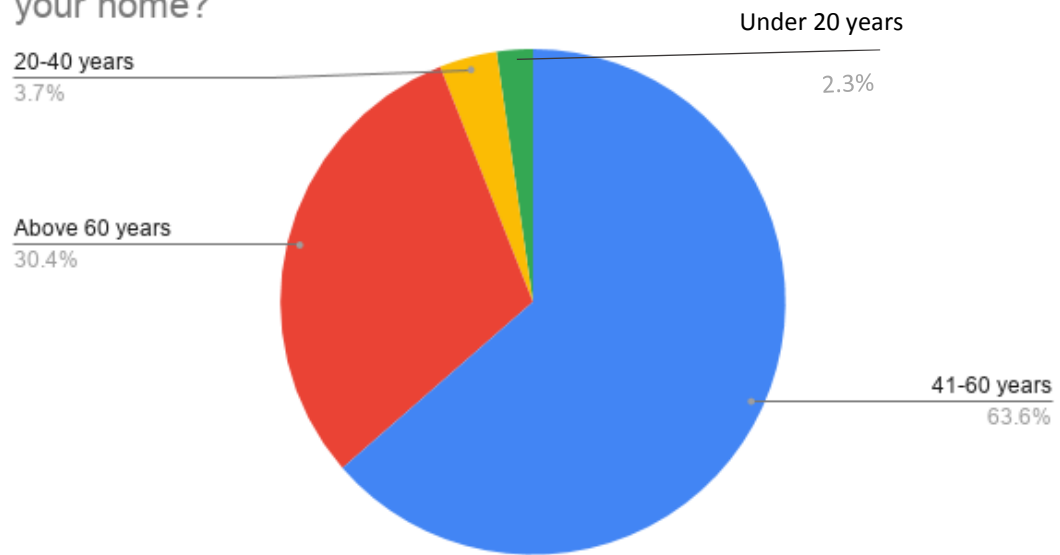
This question was basically selected to have an overview of the age group which is more susceptible to disease/illness and hence consuming more medicines.
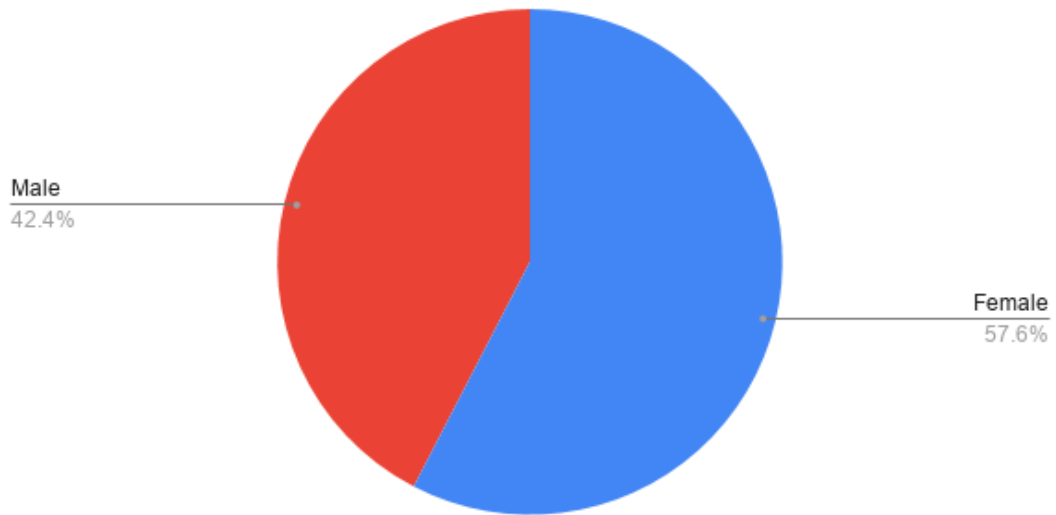
From the data collected we can clearly say that the age group between 41-60 years comprising of 63.6% are consuming more medicines.

Even there is a high percentage in above 60 years category consuming more medicines comprising of 30.4%.

Age categories of 20-40 years and under 20 years are consuming lesser medicines due to less stress, better immunity and comparatively active lifestyle.

Q14 –

Count of Who is consuming more medicine at your home? – Gender wise

Male
42.4%

Female
57.6%

This question is more or less same as the previous one. In this question we have an overview of the gender more susceptible and hence consuming more medicines.

From the data collected we can say that females are susceptible and consuming more medicines.

Out of the total data 42.4% male and 57.6% female are consuming medicines.

The reason behind it can be due to menstrual cycle, menopause, pregnancy etc. They have a higher rate of heart attack, depression, anxiety, urinary tract disorders as compared to males.

Q15 –

Count of Do you immediately visit a doctor in case of illness or self medicate?

Visit doctor immediately
49.3%
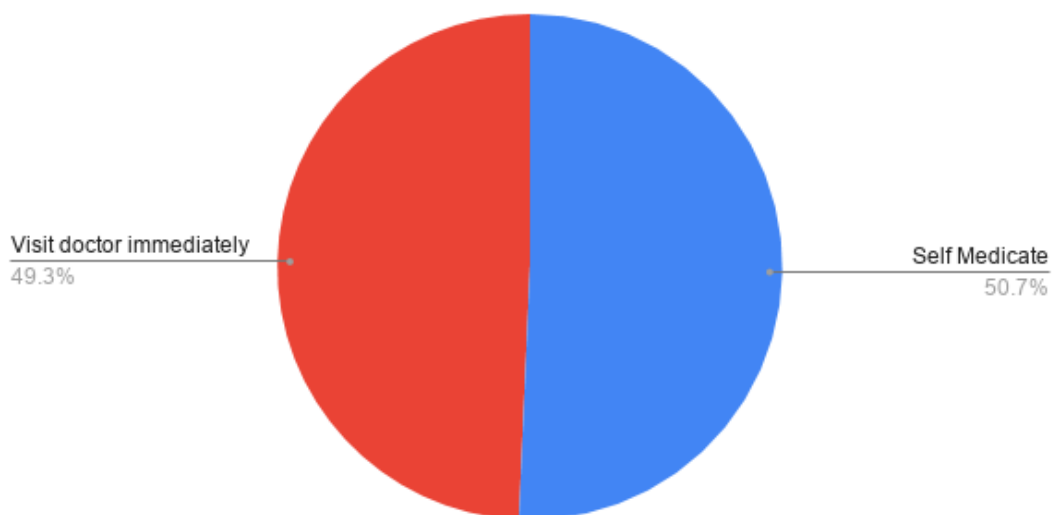
Self Medicate
50.7%

This question is related to the preference of the individual whether to self-medicate or visit the doctor in case of illness.

From the data collected the percentage is almost the same as 49.3% of data is recorded in favour of visit doctor immediately and 50.7% in favour of self-medication.

There are still many people who prefer to first take medicine on their own for common flu or any other common diseases and then visit doctor if the condition is not improved.

Q16 –

Count of Do you check the composition of the medicine before taking it? (for eg the content of paracetamol or any API)

Sometimes
39.6%

Always
60.4%
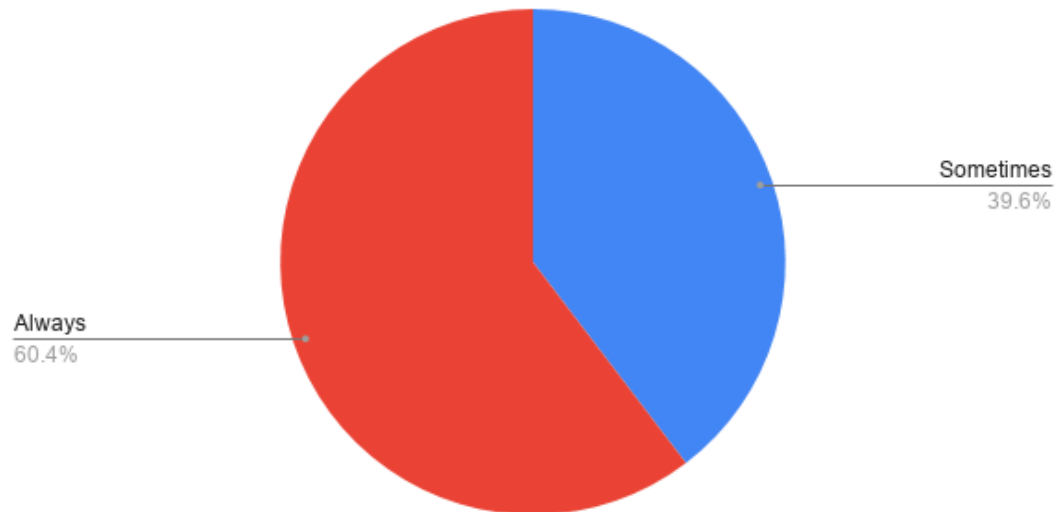
This question is very important whether the individual have the habit of checking the composition of the medicine. Every individual should check the dose of the active pharmaceutical ingredient (API) and other excipients before consuming it. Along with this they should also check all the information given on the label.

From the data collected we can say that 60.4% of the participants always check the composition whereas there are still many participants who don't regularly check the composition comprising of 39.6% and therefore its high time that every individual should be aware of checking the composition

Q17-

Count of Do you complete the dose of antibiotics after getting well?
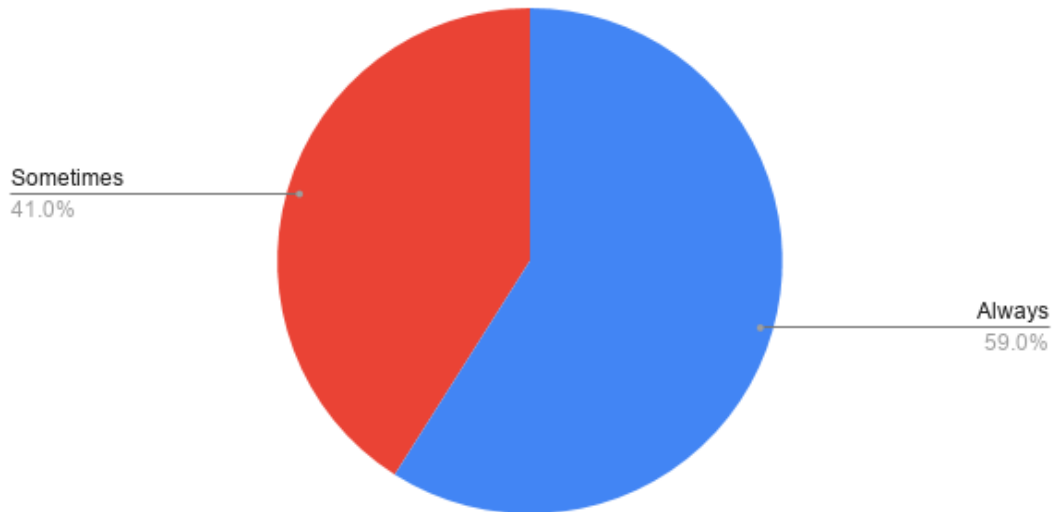
Sometimes
41.0%

Always
59.0%

This question again is very important to have an overview on medicine consumption pattern in today's scenario.

It is very important to complete the dose of antibiotics even after getting well because there are high chances that weak bacteria have died and strong bacteria are yet to killed and they might develop resistance against the antibiotic and hence making the antibiotic ineffective in future use.

Problem is that not every individual is aware of the need to complete the dose of antibiotic and hence they prevent to take after getting well.

From the data we can say that 41% of the participants sometimes complete the dose of antibiotics which is a high percentage.

Only 59% of the individual complete the dose of the antibiotics.

Q18-

Count of Do you prefer to take medicine even during minor disease conditions like pain/headache?
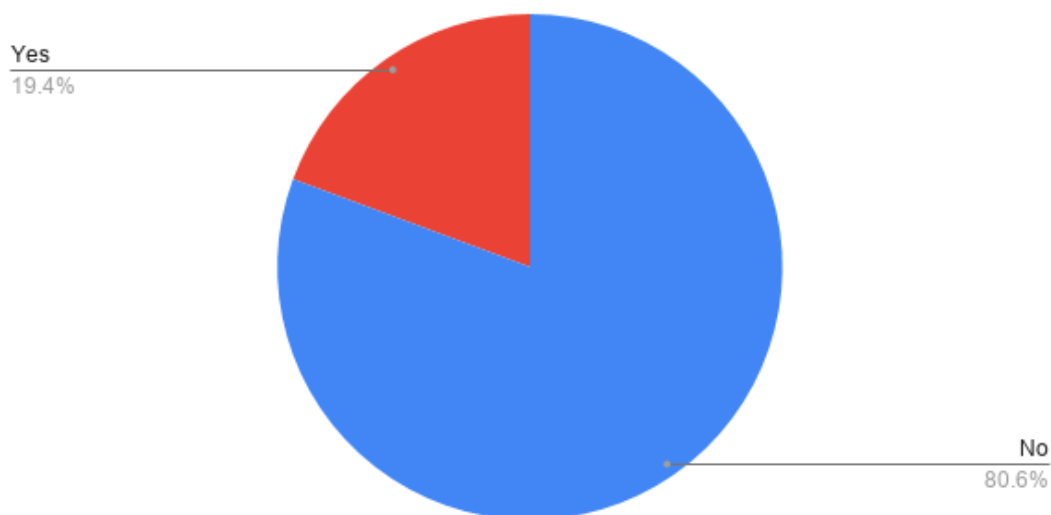
Yes
19.4%

No
80.6%

This question again is very important to have an overview on medicine consumption pattern in today's scenario.

Consumption of medicine even during minor disease condition like pain/headache can harm our liver due to first pass metabolism. Before reaching the systemic circulation maximum concentration of the drug is absorbed by the liver and can lead to liver toxicity. So, it is preferred not to take medicine for minor pain and bear with it.

From the data we can say that majority of individual around 81% are not used to take medicine for minor disease conditions like pain/headache which is a good percentage whereas 19% of the individual still have the habit of taking medicine for minor pain.

Q19 –

Count of What do you prefer more?
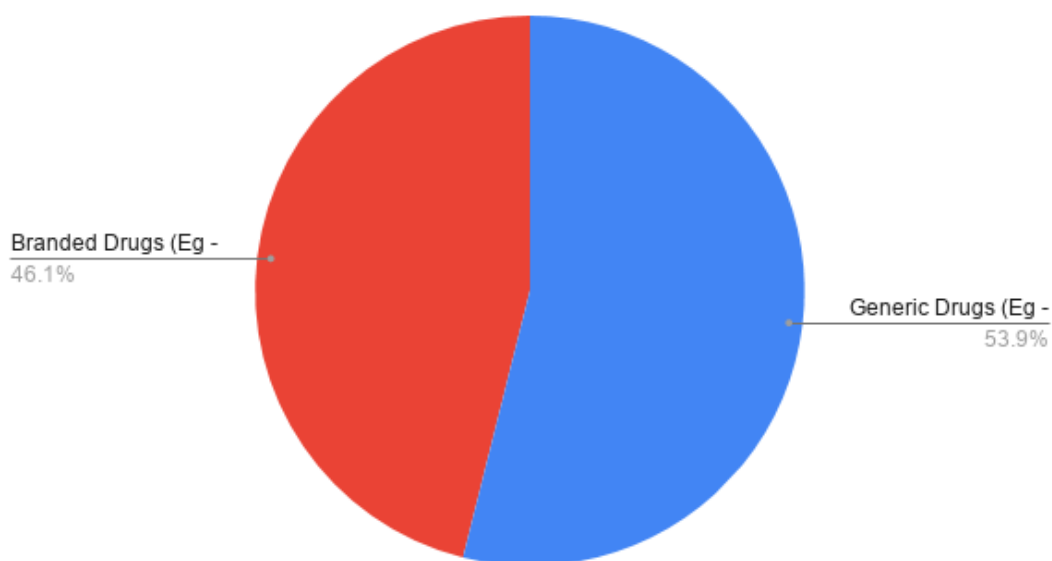
This provides us the overview of what individual prefer more between branded drugs and generic drugs.

Well both the type of drugs are same in composition, route of administeration, side effects etc. and hence have the same effectiveness. The difference is generic drug is cheaper than branded drugs. Branded drugs are expensive because of the development and marketing of the drug.

From all the response participants prefer generic drugs more than branded drugs but the difference is very small as total percentage are 53.9% for generic drugs and 46.1% for branded drugs.

Q20 –

Count of What do you prefer more?

Online Pharmacy
12.4%

Offline Pharmacy (local
87.6%
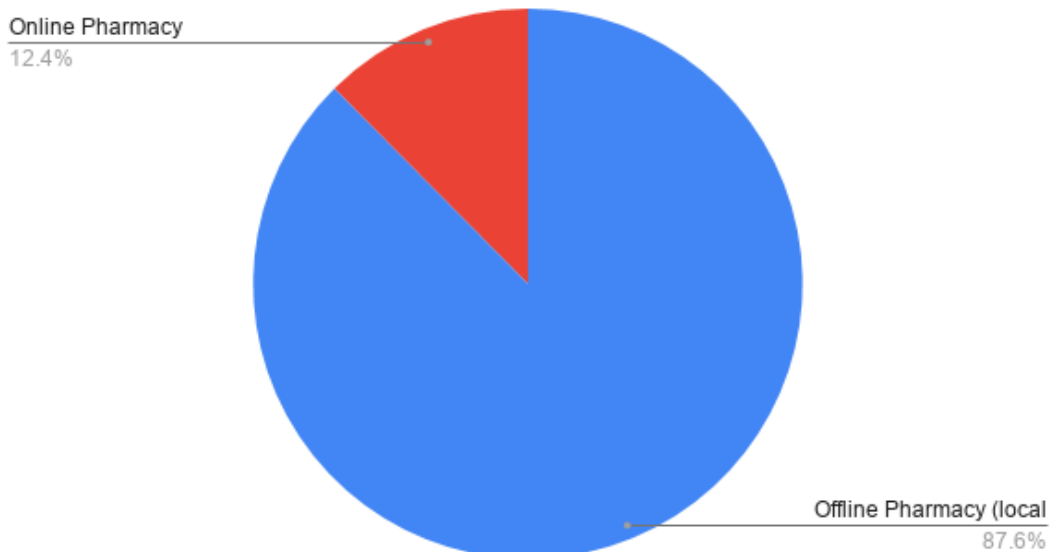
This provides us the overview of what individual prefer more between online and offline pharmacy.

From the pie chart we can clearly say that maximum of the respondent's family purchase medicines from the local chemist as there is major difference in the percentage between these two.

87.6% is towards the offline pharmacy and just 12.4% in favour of online pharmacy.

Q21

Count of Are you influenced by the brand ambassador who are endorsing medicines through various Apps /online? (Example –

Yes
6.0%
Sometimes
12.4%

Dont use online
19.8%

No
61.8%
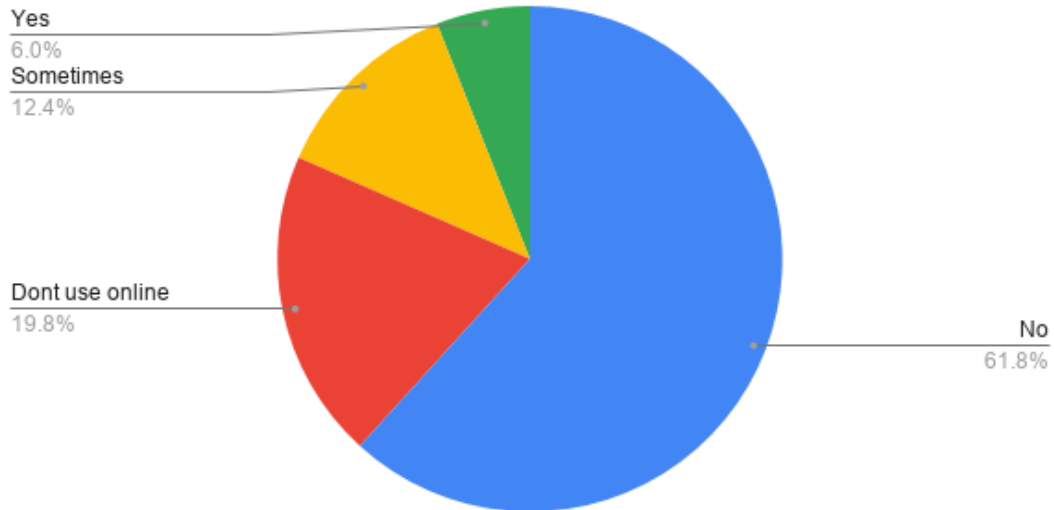
This question is related to the previous one as does the brand ambassador endorsing medicines through various apps/online leads the families buying medicine from the online pharacy. But in the previous question we saw that around 88% of families don't buy medicine from online pharmacy making this question irrelevant.

61.8% are not influenced, 19.8% don't use online pharmacy and 12.4% are only sometime influenced. Only 6% of the participants families are influenced by the brand ambassador endorsing medicines through various apps/online.

Q22-

Count of How close is chemist shop from your home?
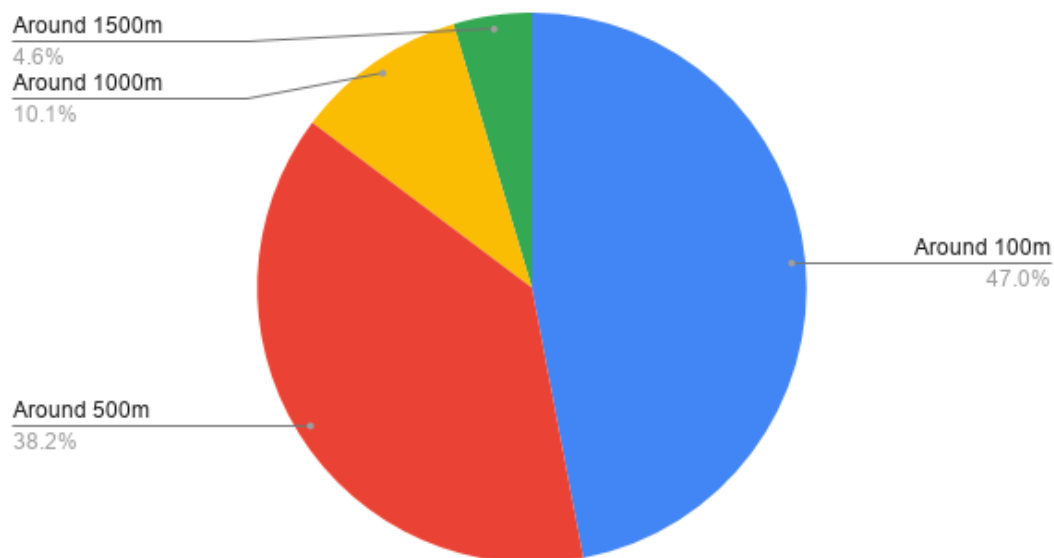
This question was basically chosen to have an overview of the availability of the chemist shop. It roughly gives us the overview whether there are sufficient chemist shop in every locality.

47% of the families has to walk less than 100m to get medicines. 38.2% of the families has this facility around 500m which is also comparatively near.

Very less percentage of families has this facility comparatively far off i.e. around 1000m and around 1500m with 10.1% and 4.6% respectively.

Q23 -

Count of What % of discount is offered by the LOCAL
CHEMIST on the total bill?

≤30%
2.8%

≤20%
21.2%

≤10%
47.5%
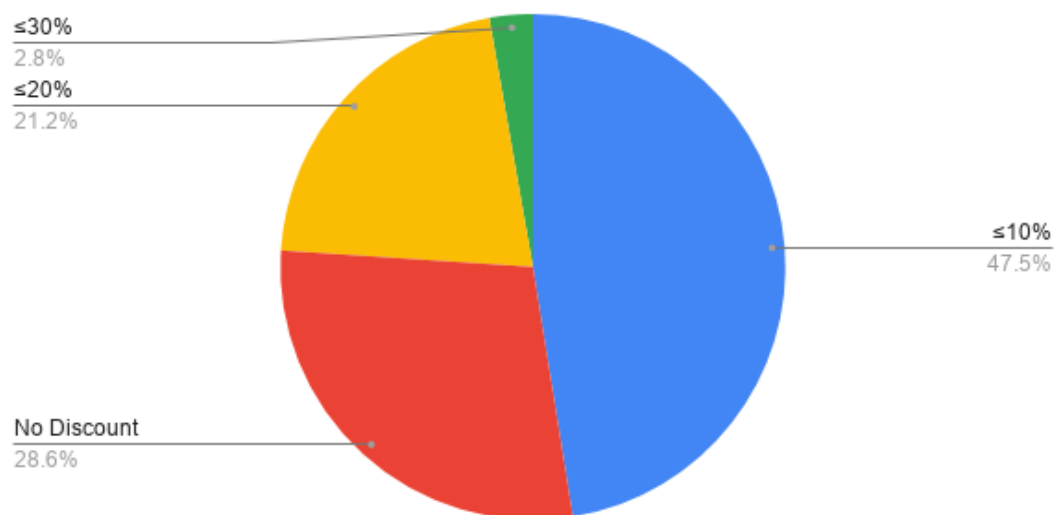
No Discount
28.6%

The above pie chart provides the data related to the percentage of discount offered by the local chemist on the total bill to the families.

Majority of the families receives discount of ≤10% comprising of 47.5% of total response. 21.2% of families receives a discount of ≤20% and very small number of families i.e.2.8% receives ≤30% discount.

There are families who receives no discount on total bill comprising of 28.6% of total response.

Q24 –

Count of What % of discount is offered by the ONLINE PHARMACIST on the total bill?
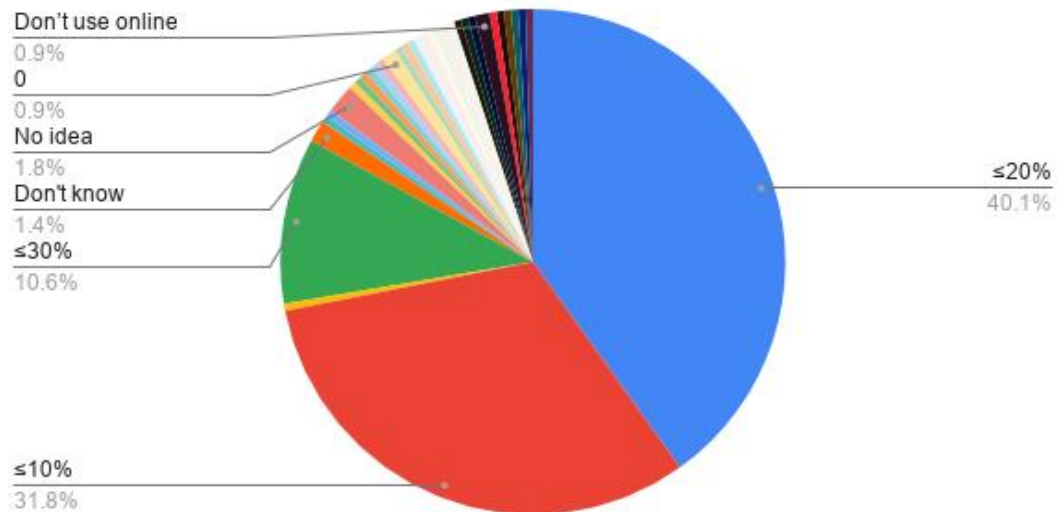
This data gives us an overview on the % discount offered by the online pharmacy to the families from their past experiences.

40.1% of families receives a discount of ≤20% on total bill whereas 31.8% of families receives a discount of ≤10%.

10.6% of families receives a higher discount of ≤30% as compared to others.

Remaining response have not use online pharmacy even once or have no idea about it comprising around 20% of total response.

Q25 –

Count of What are the advantages of buying medicine from
LOCAL CHEMIST?(can choose more than one option)

allows few days credit
1.8%

trust
11.1%

trust, allows few days
2.8%

trust, on the spot
6.5%

on the spot availability
35.9%

on the spot availability,
2.8%

trust, on the spot
37.3%
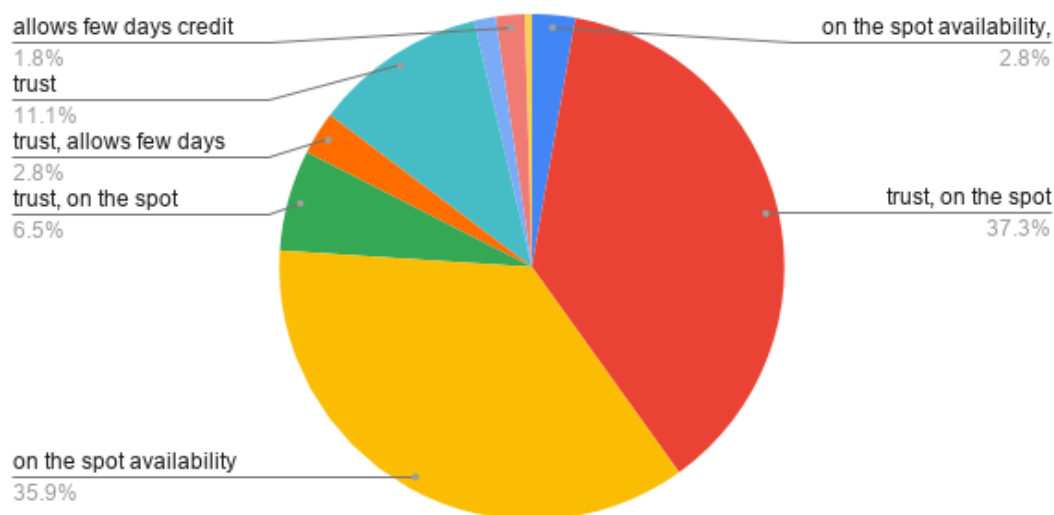
PARAMETER	RESULT IN FAVOUR OF
On the spot availability	180
Trust	126
Credit	30
Don't buy from chemist	4

This data gives us the insight from the public point of view of the advantages of buying medicine from the local chemist.

Majority of them think on the spot availabilty and trust factor being the major criteria of buying medicine from there.

Some are also in the support of credit provied by the chemist leading to buying medicines from there.

Q26-

Count of What are the advantages of buying medicine from
ONLINE PHARMACY? (can choose more than one option)

Door service, Don't use
1.8%
Greater discount, Door
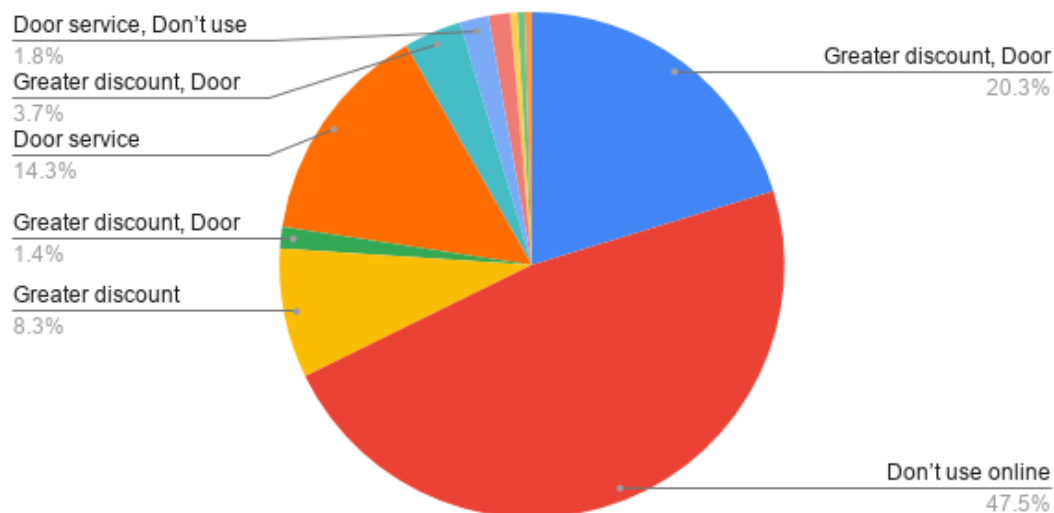3.7%
Door service
14.3%

Greater discount, Door
1.4%

Greater discount
8.3%

Greater discount, Door
20.3%

Don't use online
47.5%

PARAMETER	RESULT IN FAVOUR OF
Greater Discount	75
Door Service	92
Trust	13
Don't buy from Online	112

This data gives us the insight from the public point of view of the advantages of buying medicine from the online pharmacy.

Majority of the public response are in the favour of greater discount and door service being the factor of buying medicines from online pharmacy. Very few also supports the trust factor being the factor of buying medicine and many families are still there who prefer local chemist and hence don't use online pharmacy.

Q27-

Count of What is the estimated time taken by the online pharmacy to deliver the medicine at your doorstep?

Same day
18.0%

1 Day
32.3%

More than 2 Days
24.9%

2 Day
24.9%
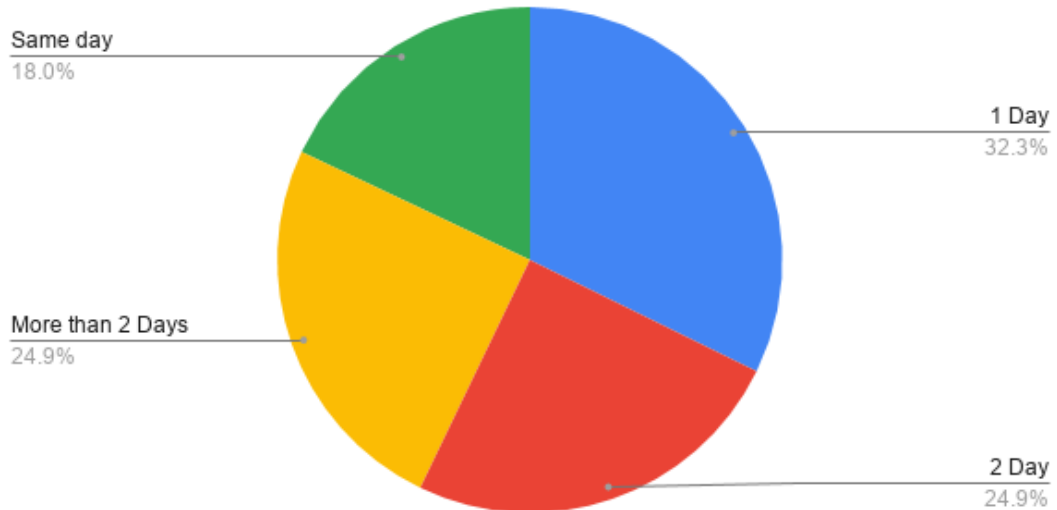
Now we look into the estimated time taken by the online pharmacy to deliver the medicines to the families from some of their past experiences.

From the data we can say that the process of delivering is quite fast as 18% receives medicines on the same day and 32.3% receives in 1 day time.

24.9% receives in 2 days times which is also comparatively fast if you order your medicines beforehand.

But almost 25% receives medicines in more than 2 days times which is comparatively longer than expected.

Q28-

Count of Who has the wider range and availability of medicine?

Online Pharmacy
47.9%

Offline Pharmacy (
52.1%

This data provides the overview of which pharmacy has the wider range and availability of medicines.

Wider range is basically related to the different medicine having the same composition and availability as the word suggest the stock of the medicines.

From the pie chart offline pharmacy just wins the race by 52.1% as compared to online pharmacy 47.9%.

Q29 –

Count of Who has the wider range of other basic daily
necessity product apart from medicine? Eg- body lotion etc

Online Pharmacy
35.0%

Offline Pharmacy (local
65.0%
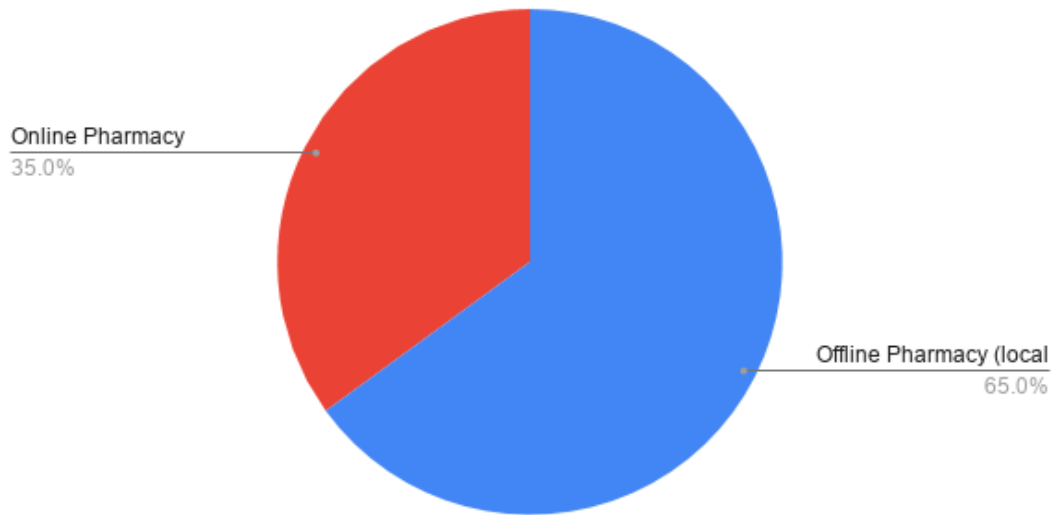
This data provides the overview of which pharmacy has the wider range of products other than medicines. There are number of people who uses pharmacy not only to buy medicines but also other products such as toothpaste, body lotion and other FMCG products and each and every pharmacy should have this.

Majority of the responses where in the favour of offline pharmacy with 65%.

Others voted in favours of online pharmacy with 35%.

6.Conclusion

There can be several conclusions drawn from the answers collected from the survey as this survey was not particularly focussed on a single topic rather it was primarily focussed to have an overview of medicine consumption pattern in various households in day to day life -

Talking about some basic questions maximum of the respondents knows about Pharmacist, prescription, online and offline pharmacy. 35% of the participants were not familiar with the term **OTC drugs** and that is a high proportion. Individual with medical background or not must be familiar with such words as they are common in day to day life. In case of **consumption of medicine daily** 83% of the participants in which at least one member consume medicine daily which is a shocking percentage. In the very next question, we came to know the **number of members consuming medicine daily** of about 1-2 members (66%) and 3-4 members (17%). The numbers are shocking and its high time that every individual should take initiative to convert his lazy or busy lifestyle into active and stress-free lifestyle to have a healthy life. Consumption of medicine majorly in form of tablets is no good due to first pass metabolism and leads to liver toxicity. Talking about the **money spent by the family per month on medicines** we came to know majority of the family spent under Rs1000 and between Rs1000-Rs5000. Next is about the **frequency of buying medicines** and of those who regularly buy medicines majority of them prefer to buy medicines once in a month and some once a week. The survey also aimed at which **gender is more susceptible to disease and pain** and hence consuming more medicines and there was not a major difference but females are more susceptible according to the results. Talking about the case of **self-medication or visiting doctor immediately** during illness the result was almost a tie with almost 50-50 ratio. For minor and common flu one can self-medicate but other serious problem it is always advisable to visit the doctor immediately else it might worsen the health condition. Next is whether **individual check the composition of formulation before consuming it** and even in today's time with lot of awareness there are many people still not reading the composition or expiry date of medicines. Consuming different medicine for illness and can lead to various side effects so one should always check it. Next is one of the most important question of the survey of **completing the dose of antibiotic even after getting well** and 41% of participants don't intend to complete the dose of antibiotic even after getting well and it is a shocking revelation. Completion of dose is

very important as bacteria might create the resistance against the antibiotic and hence making it ineffective for future use. In case of **individual preference to take medicines for minor disease conditions like pain/headache** majority of them don't prefer but there is still substantial individual who do prefer to take it. It is strictly advisable to tolerate pain to some extent instead of taking medicine which is majorly in form of tablets as it leads to liver toxicity due to first pass metabolism.

The survey was also to know about preference between **firstly branded drugs or generic drugs and secondly between online pharmacy and offline pharmacy.** In first case it almost the same with 54-46% in favour of generic drugs and in the second case majority of the family prefer offline pharmacy over online pharmacy. Next is the **availability of the chemist shop** and most of them have this access nearby. Through the survey we even came to knew about the **percentage of discount offered by the online and offline pharmacy.** Local chemist and online pharmacy provide different percentage of discount to different households and hence we cannot have a common conclusion. But after comparing them both we can say that online pharmacy provides a greater discount than offline pharmacy but we even need to keep in mind that sample of buyer from online pharmacy is less as respondents preferred offline pharmacy more. Next up is the **advantages that participant's family feels that leads them to buy medicine from online or offline pharmacy.** In case of local chemist, majority of them think on the spot availability and trust being the major factor of buying medicine from there. In case of online pharmacy, greater discount and door service are considered as the major factor. We even covered the **estimated time taken by online pharmacy to deliver the medicines.** There was substantial response for every option but we can conclude that majority of them receives around 2 days' time or even less than that. Some of them even receives after 2 days which is longer than expected. Next up is the **wider range and availability of medicine between online and offline pharmacy** and we almost have an equal ratio with offline pharmacy having a higher ratio. Talking about **the products other than medicine like FMCG products** offline pharmacy has a wider variety and collection as compared to online pharmacy.

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