A COMMUNITY SERVICE PROJECT REPORT ON

"AWARENESS ON INCIDENCE OF DIABETES AND CHRONIC DISEASES"

A report on a community service project submitted as partial fulfillment for a degree award

BACHELOR OF TECHNOLOGY

IN

COMPUTER SCIENCE AND ENGINEERING (DATA SCIENCE)

BY

NAME	REGISTER NUMBER
SHAIK UMAR KHAJA	**23091A32H4**

Under the guidance of

MS A. Annapurna M. Tech, (Ph. D)

Assistant Professor of CSE (Data Science) Department

(ESTD-1995)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING (DATA SCIENCE)

RAJEEV GANDHI MEMORIAL COLLEGE OF ENGINEERING & TECHNOLOGY

(AUTONOMOUS)

Accredited by NAAC of UGC, New Delhi with 'A+' Grade
Approved by AICTE, Affiliated to J. N. T. University Anantapur, Nandyal-518501

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING (DATA SCIENCE)

CERTIFICATE

This is to certify that **SHAIK UMAR KHAJA (23091A32H4),** of B. Tech **CSE (Data** Science) third year has carried out the community service project work on "**AWARENESS** ON INCIDENCE OF DIABETES AND CHRONIC DISEASES" under the esteemed guidance of **MS A. Annapurna, M. Tech, (Ph. D)** Assistant Professor of CSE (Data Science) Department, for the partial fulfilment of the award of degree of B. Tech in CSE (Data Science) in RGMCET, Nandyal as a Bonafide record of work done by them during the year 2025-2026.

Head of Department
Dr. B. Bhaskara Rao, **M. Tech, Ph. D**
Associate Professor & HOD
Department of CSE (DS)

Project In-Charge
Ms. A. Annapurna, **M. Tech, (Ph. D)**
Assistant Professor
Department of CSE (DS)

Place: Nandyal

Date:

Examiner:

PROGRAM BOOK FOR COMMUNITY SERVICE PROJECT

Name of the Student	**:**	SHAIK UMAR KHAJA
Name of the College	**:**	Rajeev Gandhi Memorial College of Engineering &Technology **(**Autonomous)
Registration Number	**:**	**23091A32H4**
Period of CSP	**:**	from: to:
Name &Address of the Community	**:**	Nandyal, Kurnool, Andhra Pradesh, Pin-518501.

Community Service Project Report

Submitted in accordance with the requirement for the degree of B. Tech

Name of the Student	**:**	SHAIK UMAR KHAJA
Name of the College	**:**	Rajeev Gandhi Memorial College Of Engineering &Technology **(**Autonomous).
Register Number	**:**	23091A32H4
Department	**:**	Computer Science and Engineering (DS)
Name of the Faculty Guide	**:**	A. Annapurna M. Tech, (Ph. D)
Duration of the CSP	**:**	from: to:
Program of the Study	**:**	B. Tech
Year of the Study	**:**	III B. Tech I Sem
Date of Submission	**:**	

Student's Declaration

I, **SHAIK UMAR KHAJA**, a student of B. Tech programe, Reg. No **23091A32H4** of the Department of CSE(DS), RGMCET do hereby declare that I have completed the mandatory community service from 00/00/00 to 00/00/00 in **"AWARENESS ON INCIDENCE OF DIABETES AND CHRONIC DISEASES** under the Faculty Guideship of **Ms. A. Annapurna, M. Tech, (Ph. D)** Assistant Professor of Computer Science and Engineering (Data Science) in Rajeev Gandhi Memorial College of Engineering and Technology (Autonomous), Nandyal.

(Signature and Date)

Endorsements

Faculty Guide

Ms. A. Annapurna, **M. Tech, (Ph. D)**

Assistant Professor

Department of CSE(DS)

Head of the Department

Dr. B. Bhaskara Rao, **M.Tech, Ph. D.**

Associate Professor & HOD

Department of CSE(DS)

Principal

Dr. T. Jaya Chandra Prasad, **Ph. D.**

RGMCET

Certificate from Official of the Community

This is to certify that **SHAIK UMAR KHAJA** Reg. No **23091A32H4** of **Rajeev Gandhi Memorial College of Engineering and Technology (Autonomous)** underwent community service in **"Awareness on Incidence of diabetes and chronic Diseases"** from: 08/05/25 to: 21/06/25. The overall performance of the Community Service Volunteer during his/her community service is found to be _____(Satisfactory/Good).

Authorized Signatory with Date and Seal

ACKNOWLEDGEMENT

I manifest our heartier thankfulness pertaining to your contentment over our project guide **Ms. A. Annapurna,** **M. Tech, (Ph.D.)** Assistant Professor of Computer Science and Engineering (Data Science) department, with whose adroit concomitance the excellence has been exemplified in bringing out this project to work with artistry.

I express our gratitude to **Dr. B. Bhaskara Rao**, **M. Tech, Ph.D.** Head of the Department of Computer Science Engineering (Data Science), all teaching and non-teaching staff of the Computer Science Engineering Department of Rajeev Gandhi Memorial College of Engineering and Technology for providing continuous encouragement and cooperation at various steps of our project.

Involuntarily, I am perspicuous to divulge our sincere gratefulness to our Principal, **Dr. T. Jaya Chandra Prasad**, **Ph. D** who has been observed posing valiance in abundance towards our individuality to acknowledge our project work tangentially.

At the outset we thank our honorable Chairman **Dr. M. Santhi Ramudu**, for providing us with exceptional faculty and moral support throughout the course.

Whatever one does, whatever one achieves, the first credit goes to the Parents, be it not for their love and affection, nothing would have been responsible. I see in every good that happens to us their love and blessings.

CONTENTS

CHAPTER 1: EXECUTIVE SUMMARY

The Community service chosen by us is "**Incidence of diabetes and chronic diseases**".

1.1. Needs and importance:

Service learning is a process of involving students in community service activities combined with facilitated means for applying the experience to their academic and personal development.

A community survey is a method of collecting data from a filtered target audience to help you understand an issue particular to them. Community service is a way for people to make a difference in the world.

Community service activities help children define their values, experience empathy, develop social skills, and learn about their community. Community service is often organized in local areas. It Improves critical thinking skills.

Objectives:

- A brief understanding about diabetes and its types that are commonly faced by people.
- Giving awareness to different students about cause and after effects of diabetes.
- The type of diet to be followed to control blood sugar levels.
- Factors such as calories, sugary foods, quantity of water to be taken for balance.
- Explaining about problems faced by our future generations.
- Gathering a community of people together and educating them about incidence of diabetes.
- Careful attention is given to proper medication, healthy diet, precautions to avoid, proper awareness to individuals.

CHAPTER 2: OVERVIEW OF THE COMMUNITY

- About the Community/Village/Habitation including historical profile of the community/habitation, community diversity, traditions, ethics, and values.
- Brief note on Socio-Economic conditions of the Community/Habitation.

LOCATION AND COMPOSITION:

- The name Nandyal is from the word "Nandi Alayam." This place is approximately centre point of nine Nandi temples, and it has been as important pilgrimage site since the days of the Vijayanagar Kingdom owing to its nine Nandi temples.
- Nandyal District lies between the northern latitudes of 150 27" 49" and eastern longitudes of 780 28" 43". The altitude of the district varies from 100 ft above the mean sea level.

Nandyal Intensive & Trauma Care:

- Nandyal intensive & trauma Care is one of the fastest growing hospitals with proven credentials in delivering excellent care for a wide range of tertiary healthcare services with personalized and ethical Next Gen Medicare.

Udayananda Hospital:

- With the motto of providing “Quality Healthcare” to all the sections of the society, Udayananda Hospital was established. The hospital has 80 ICU beds with a special coronary care Cardiac ICU unit and advanced post operative care ICU’s.

CHAPTER 3: COMMUNITY SERVICE PROJECT

3.1. INTRODUCTION:

Diabetes is a chronic metabolic disorder characterized by elevated blood glucose levels. There are primarily two main types of diabetes: Type 1 diabetes and Type 2 diabetes. Additionally, there is a condition known as gestational diabetes that occurs during pregnancy.

The number of people with diabetes rose from 108 million in 1980 to 422 million in 2014. Prevalence has been rising more rapidly in low- and middle-income countries than in high-income countries. Diabetes is a major cause of blindness, kidney failure, heart attacks, stroke, and lower limb amputation. Between 2000 and 2019, there was a 3% increase in diabetes mortality rates by age.

In 2019, diabetes and kidney disease due to diabetes caused an estimated 2 million deaths. A healthy diet, regular physical activity, maintaining a normal body weight and avoiding tobacco use are ways to prevent or delay the onset of type 2 diabetes.

Diabetes can be treated and its consequences avoided or delayed with diet, physical activity, medication and regular screening and treatment for complications, most people with diabetes have Type 2 diabetes. Type 1 diabetes is most common in young people and Type 2 diabetes is preventable. Cases of Type 2 diabetes have doubled in India in the past 20 years.

3.2. Overview:

- Collected the data on diabetic patients from a particular locality hospital .
- Data were entered using Google Forms and then further analyzed by Microsoft Excel and using other python libraries and jupyter notebook.
- Data were presented as numbers and percentages.

3.3. CRITERIA FOR CLASSIFICATION OF DIABETES REPORTS:

For Type – I diabetes:

- In the presence of characteristic clinical symptoms, diabetes could be diagnosed based on a fasting plasma glucose (FPG) of ≥126 mg/dl or a random plasma glucose or 2-hour plasma glucose during a glucose tolerance test of ≥200mg/dl.

For Type – II diabetes:

- A fasting plasma glucose concentration ≥ 7.0 mmol/l (whole blood ≥ 6.1 mmol/l) or two-hour plasma glucose concentration ≥ 11.1 mmol/l two hours after 75g anhydrous glucose in an oral glucose tolerance test (OGTT).

CHAPTER 4:LOG BOOK &WEEKLY REPORT

Day & Date	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	PERSON INCHARGE SIGNATURE
WEEK-1 (12/05/25)	We formed the group and decided the topic title for our internship.	In the first week of the project, we formed a group of 3 members for community service project, and we have gone through the list of various topics that we were provided for the community service project and we chose to decide the topic "Incidence of Diabetes and other chronic diseases, and we gathered brief information about the topic we choose.	
WEEK-2 (19/05/25)	We choose locations for gathering information from on field by visiting locations, we visited a location for gathering details	On the second week, of the project, we selected different locations for performing the service project, and we planned our schedule on how to interact with doctors and We visited NITC hospital in nandyal and gathered detailed information about the problems.	

WEEK-3 (26/05/25)	We did our survey on type I diabetes and sumerized our insights	On third week, with all our group members, we went to survey in, NITC Hospital in Nandyal where we had our conversation with the doctor to know more about type 1 diabetes, we also had observed how the doctor interact with the patients.	
WEEK-4 (02/06/25)	Survey on type -2 diabetes	On fourth week, we focused mainly on type-2 diabetes by visiting. Udayananda Hospital, in Nandyal, and gathered information on patients dealing with type-2 diabetes and how are they treated and the medication given to them and their life style changes to be made in a detailed manner.	

WEEK-5 (09/06/25)	We had interactions with the doctor on the topics of symptoms,diagnosis, precautions to be followed by the people.	On the fifth week, we visited Enlight Diabetes center, in Nandyal doctor gave us a detailed description about the topics chosen. Key points from the conversation are noted for bringing awareness and further analysis.	
WEEK-6 (16/05/25)	Gathering the data of patients from hosipital and meeting dietian for diet plans performing analysis on the data collected	We,contacted doctor and collected data forour project analysis, and we gathered insights for performing data visualization and. and also knew about diet changes to be made by the patients.	

WEEKLY REPORT
WEEK -1 (Dt:)

Objective of the Activity Done:

Formation of group and deciding the internship title.

Detailed Report:

On the first week of our CSI project, we decided to form a group and started to discuss about the topics given for the internship, and chose the topic Incidence of diabetes and other chronic diseases. Later on , gathering basic brief information about our topic is done.

Diabetes is a disease that occurs when your blood glucose, also called blood sugar, is too high. Blood glucose is your main source of energy and comes from the food you eat. Insulin, a hormone made by the pancreas, helps glucose from food get into your cells to be used for energy. Sometimes your body does not make enough- or any-insulin or does not use insulin well. Glucose then stays in your blood and does not reach your cells.

Over time, having too much glucose in your blood can cause health problems. Although diabetes has no cure, you can take steps to manage your diabetes and stay healthy. Sometimes people call diabetes "a touch of sugar" or "borderline diabetes."

Health problems can people with diabetes:

Over time, high blood glucose leads to problems such as

- Cardio vascular disease
- Heart stroke
- kidney disease
- eye problems
- dental disease
- nerve damage

WEEKLY REPORT

WEEK – 2(Dt :)

Objective of the Activity Done:

Visit to the nearby hospital and having an interaction with the doctor to gather information.

Detailed Report: On the second week of our CSI project,

In our quest to understand the intricate world of diabetes, an embarked journey through the corridors of a local hospital, delving into the depths of information provided by healthcare professionals, researchers, and patients. Our mission was to unravel the complexities surrounding this prevalent metabolic disorder that affects millions worldwide.

Understanding Diabetes: Our exploration began with an overview of diabetes, a chronic condition characterized by elevated blood glucose levels. Learned that the body's inability to produce or effectively use insulin, a hormone responsible for regulating blood sugar, is at the core of diabetes.

Types of Diabetes: The hospital visit shed light on the distinction between Type 1 and Type 2 diabetes. Type 1, often diagnosed in childhood, results from the immune system attacking and destroying insulin-producing beta cells. Type 2, more common in adults, arises when the body cannot use insulin properly or doesn't produce enough.

Complications and Monitoring: The hospital visit also addressed the potential complications Associated with diabetes, including cardiovascular issues, kidney problems, and nerve damage.

WEEKLY REPORT

WEEK-3(Dt:)

Objectives of the activity Done:

During this week, we have performed our research about type-I diabetes in detail.

Detailed Report:

In the 3rd week of our CSI project, visited Dr. Vivekananda sir in NITC hospital, to provide us information about Type-1 diabetes and their experiences with their patients.

A questionnaire was asked to perform a survey and the questions asked in our survey are:

1. Who is more likely to develop type 1 diabetes?
2. What are the symptoms of type 1 diabetes?
3. What are the causes of type 1 diabetes?
4. How do you diagnose type-I diabetes?
5. What treatment do you give to Type-I diabetes diagnosed patients?
6. Do they need to take insulin for the rest of their life?
7. Will exercise help control type-I diabetes?
8. Can they stop taking insulin if they eliminate candy and cookies from their diet?
9. Do they need to monitor their blood sugar even when they are feeling fine?
10. If a patient has type 1 diabetes. Are their children at risk to get Type-I diabetes?

Type 1 diabetes:

Diabetes that occurs when your blood glucose, also called blood sugar, is too high. Blood glucose is your main source of energy and comes mainly from the food you eat. Insulin, a hormone made by the pancreas, helps the glucose in your blood get into your cells to be used for energy. Another hormone, glucagon, works with insulin to control blood glucose levels.

In most people with type 1 diabetes, the body's immune system, which normally fights infection, attacks, and destroys the cells in the pancreas that make insulin. As a result, your pancreas stops making insulin. Without insulin, glucose cannot get into your cells and your blood glucose rises above normal. People with type 1 diabetes need to take insulin every day to stay alive.

WEEKLY REPORT

WEEK-4(Dt :)

Objective of the Activity Done:

Finding out about details of type-II diabetes and performing an in-depth survey using a questionnaire.

Detailed Report:

On the fourth week of our CSI project, interacted with Dr. P. Nagarjuna Reddy Sir at Udayananda Hospital and then performed detailed survey on Type-II diabetes and its after effects on patients.

A questionnaire was asked to perform a survey and the questions asked in our survey are:

1. Is type-II diabetes considered due to family history or due to genetical conditions?
2. What are the key risk factors to be identified for the development of Type-II diabetes?
3. What are the most common symptoms observed in type-II patients?
4. How frequently do you check blood glucose levels?
5. What is the typical range of blood glucose levels?
6. Current medications for managing Type 2 diabetes (including oral medications or injectables)?
7. How do you suggest patients to manage their diet to control blood sugar levels?
8. How often are HbA1c levels checked for the patients?
9. Should there been any changes in lifestyle, such as diet or physical activity?
10. How often should follow-up appointments occur?

Type 2 Diabetes:

Type 2 diabetes, the most common type of diabetes, is a disease that occurs when your blood glucose, also called blood sugar, is too high. Blood glucose is your main source of energy and comes mainly from the food you eat. Insulin, a hormone made by the pancreas, helps glucose get into your cells to be used for energy. In type 2 diabetes, your body doesn't make enough insulin or doesn't use insulin well. Too much glucose then stays in your blood, and not enough reaches your cells.

WEEKLY REPORT

WEEK-5(Dt :)

Objective of the Activity Done:

We focused on topics of symptoms, Diagnosis, precautions, that are to be followed by both patients and doctors.

Detailed Report:

On the fifth week of our CSI project, in depth research about Diagnosis, Precautions, Symptoms was performed by visiting Enlight Diabetes center in Kurnool.

Detailed Questionnaire for symptoms, Precautions, Diagnosis:

1. What are the common early symptoms of diabetes?
2. Are there differences in symptoms between Type 1 and Type 2 diabetes?
3. Do the symptoms change based on the gender?
4. How do fluctuations in blood sugar levels manifest in terms of symptoms?
5. Are there specific signs that indicate high or low blood sugar levels?
6. Can diabetes lead to vision problems, and what are the warning signs?
7. What neurological symptoms might be Associated with diabetes?
8. Do diabetes patients commonly experience urinary symptoms?
9. What dietary precautions are essential for managing diabetes?
10. What precautions should diabetic patients take regarding alcohol consumption?

WEEKLY REPORT

WEEK-6(Dt :)

Objective of the Activity Done:

Collecting the data from the hospital and we have seen the process of performing diabetes test for the blood samples and performing data visualization of the data.

Detailed Report:

On the sixth week, our team members together visited enlight clinic to collect the raw data and the collected data is entered in the excel sheets and performed data cleaning and data analysis.

Data Collection:

The Sample of the data from the collected population.

Report No	Age	Gender	FBS(mg/dl)	PPBS(mg/dl)	HBA1C (%)	Type	Prescription	Case
4220	57	M	155	214	NIL	TYPE-1	Insulin shots	Diabetic
4221	37	F	273	276	NIL	TYPE-2	Tablets(DPP-4i,SGLT-2i)	Diabetic
4222	55	M	119	176	NIL	TYPE-1	Insulin shots	Diabetic
4223	59	F	142	232	NIL	TYPE-1	Insulin shots	Diabetic
4224	45	M	117	198	NIL	TYPE-1	Insulin shots	Diabetic
4225	68	M	98	270	NIL	TYPE-2	Tablets(DPP-4i,SGLT-2i)	Diabetic
4226	42	F	133	199	NIL	TYPE-1	Insulin shots	Diabetic
4227	50	M	126	251	NIL	TYPE-2	Tablets(DPP-4i,SGLT-2i)	Diabetic
4228	45	M	135	198	NIL	TYPE-1	Insulin shots	Diabetic
4229	56	M	102	164	NIL	TYPE-1	Insulin shots	Diabetic
4230	51	F	127	167	NIL	TYPE-1	Insulin shots	Diabetic
4231	61	M	114	170	NIL	TYPE-1	Insulin shots	Diabetic
4232	58	M	158	223	NIL	TYPE-2	Tablets(DPP-4i,SGLT-2i)	Diabetic
4233	40	M	159	220	8.3 %	TYPE-2	Tablets(DPP-4i,SGLT-2i)	Diabetic

In the similar way, we have collected around 405 patient's records form the Kurnool locality

Data Visualization:

Case	Gender F	M
Diabetic	144	229
Non Diabetic	14	18

From the data we have collected, we can clearly observe that there are more diabetic cases in males than in females.

Type	Gender F	M
Gestational	5	
NORMAL	14	18
Prediabetes	2	2
TYPE-1	57	108
TYPE-2	80	119

Gestational diabetes is a special case that only occur during pregnancy , so there are zero chances of occurrence in males.

Males have 89.5% more chances of getting affected with type- I compared to females.

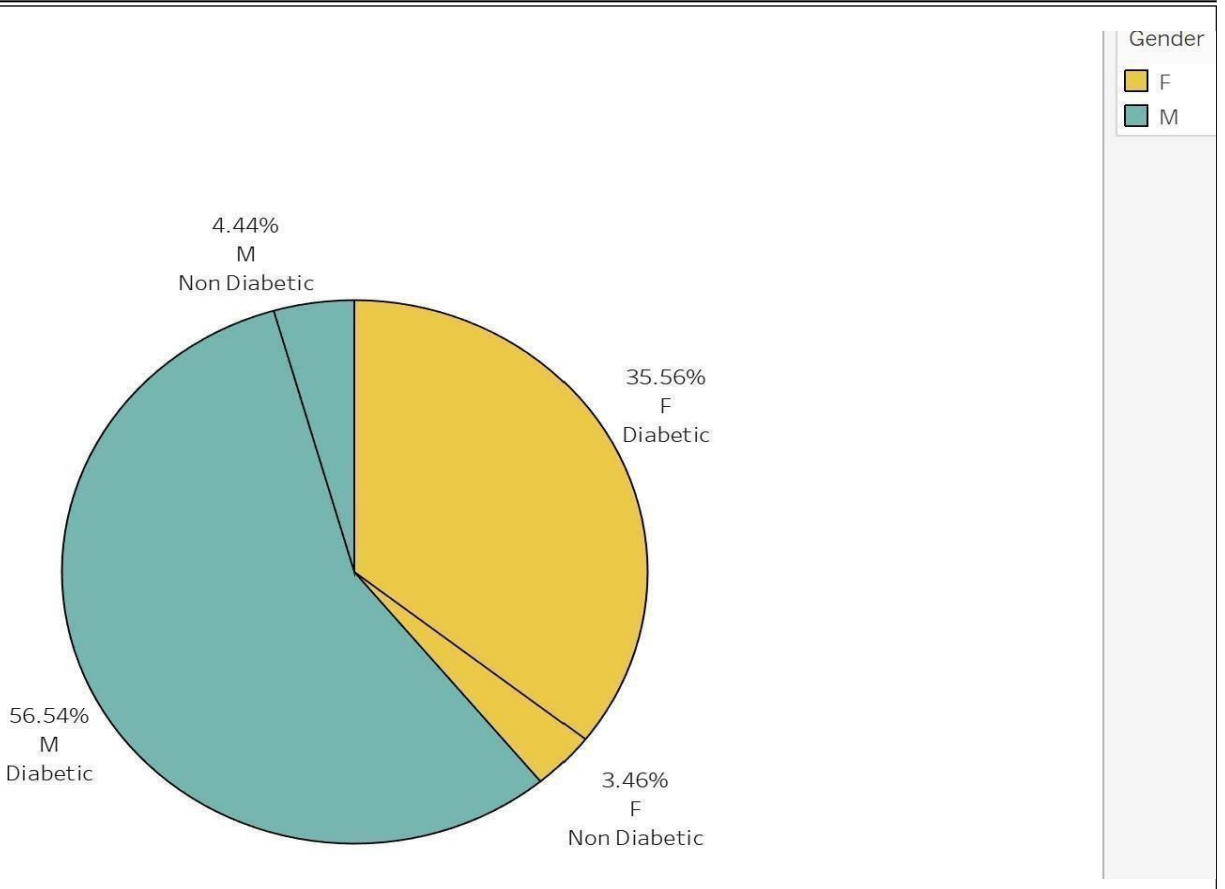
Females have 49.8% less chances of getting affected with type-II diabetes.

	Type / Gender								
	Gestation..	NORMAL		Prediabetes		TYPE-1		TYPE-2	
	F	F	M	F	M	F	M	F	M
Min. Age	40.0	43.0	31.0	56.0	45.0	17.0	31.0	20.0	13.0
Avg. Age	55.4	54.9	53.9	58.0	52.5	50.4	54.2	49.9	51.8
Count of Type	5.0	14.0	18.0	2.0	2.0	57.0	108.0	80.0	119.0
Max. Age	65.0	68.0	75.0	60.0	60.0	70.0	77.0	76.0	77.0

Females in between range of 40-65 are more prone to be affected by Gestational diabetes.

The average age for females to be affected by Type-II is 49-50 years.

The average age for males to be affected by Type-II is 50-51 years.

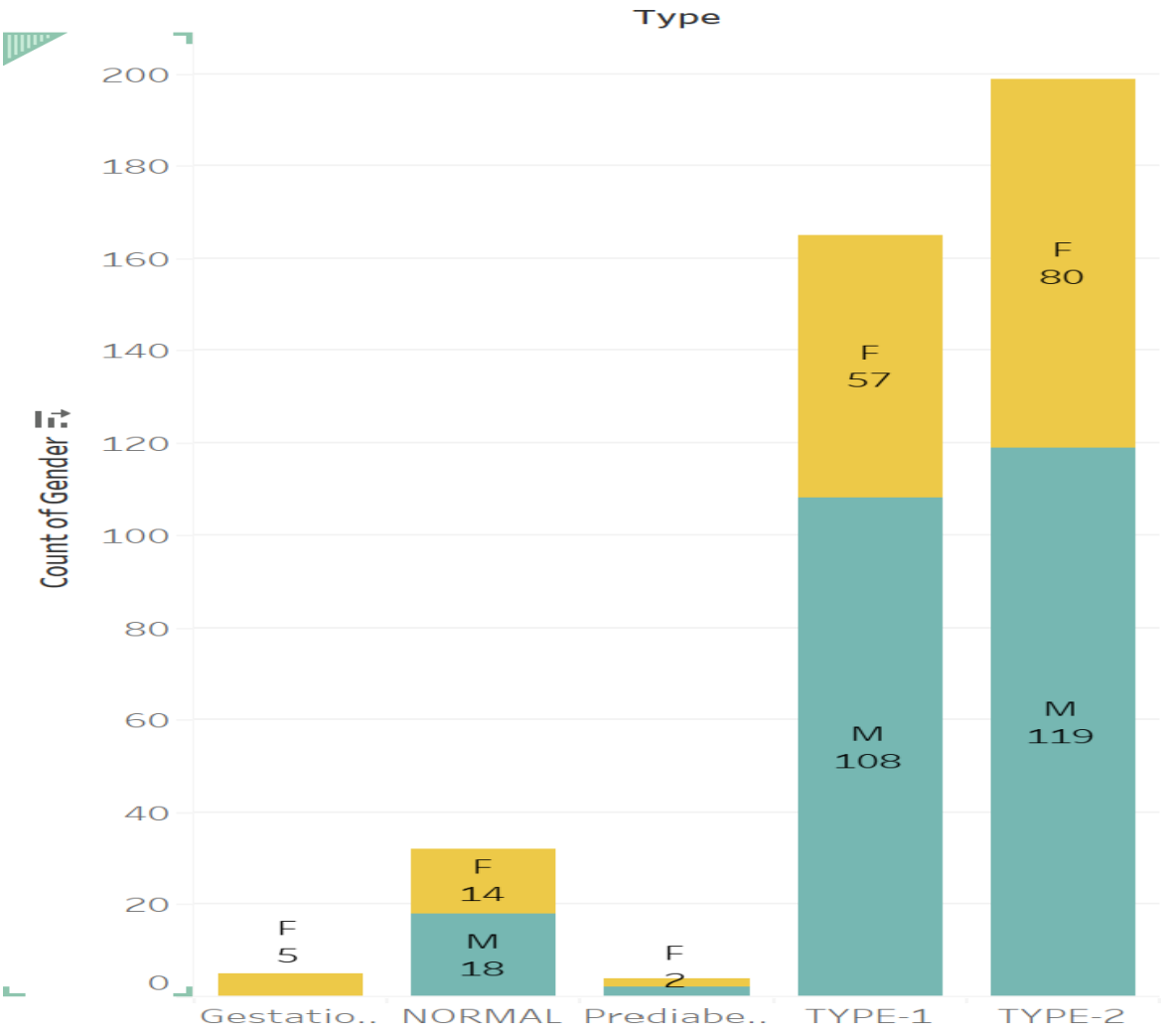


For the above pie chart the insights we can gather are:

There are mainly two types of cases they are Diabetic and Non-Diabetic, the Diabetic cases are being rapidly increasing in number from time to time, there is nearly 8.9% growth in cases from 2019.

In the data we have taken, there are 56.54% diabetic cases in males, where as there are 35.56% diabetic cases in females, that is in the data we collected we can observe that males are being more affected to diabetes and they should be given awareness on how to prevent and follow the life style measures.

The non-diabetic, cases are 3.46% in females and 4.44% in males among 405 records collected.

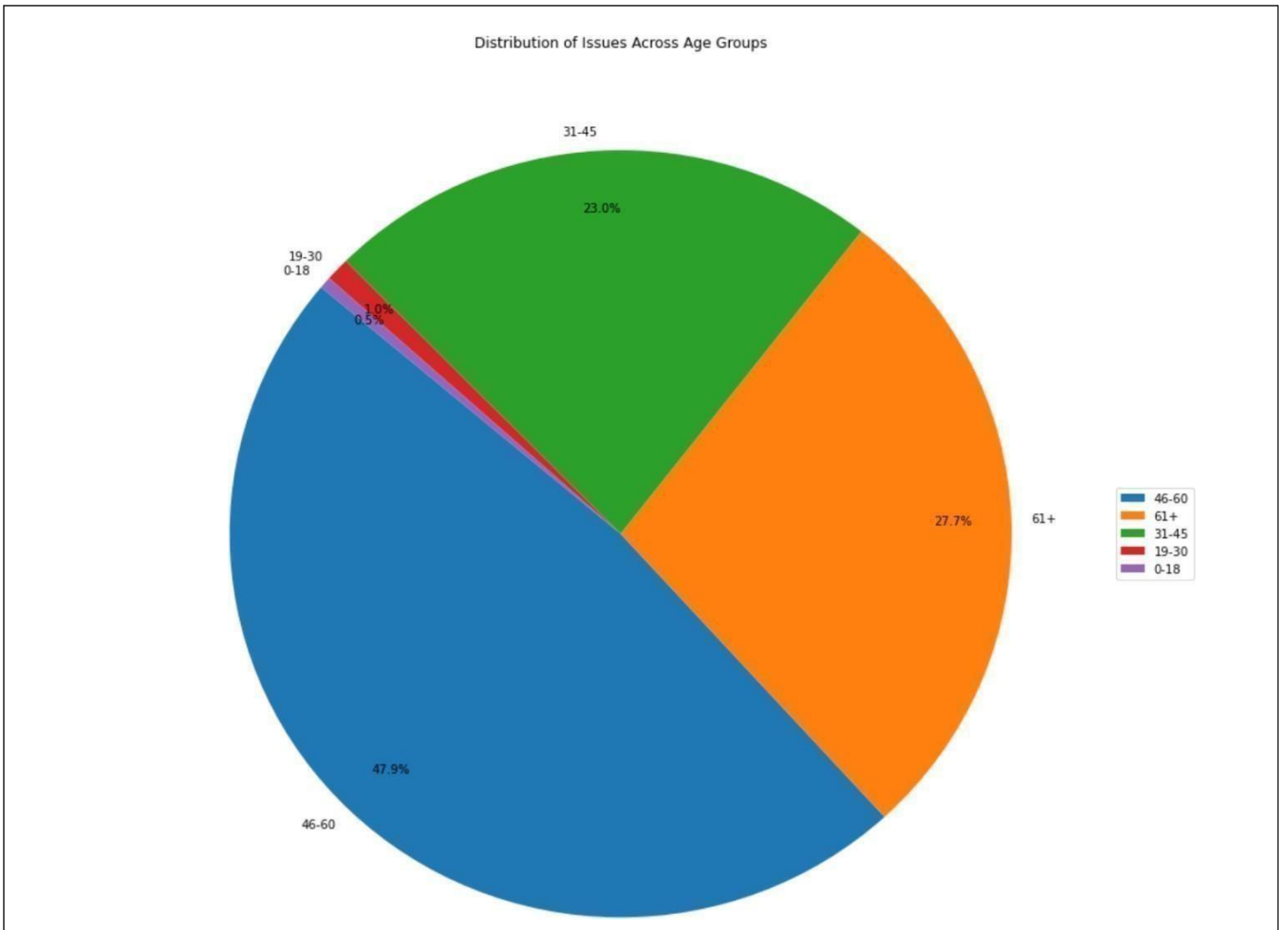


The above bar graph represents the count of Males and Females, in different types of diabetes in the form of stacked Bar Charts.

As Gestational Diabetes occur only in Female, the female count is 5 among 405 records, By which we can say gestational diabetes occurs rarely in people.

For Type-I, there are 57 Female cases and 108 Male cases who are facing the issue from the very young age. They don't have any other option other than using insulin shots lifelong.

For Type-II, there are 80 female cases, and 119 male cases who are affected due to external factors as Eating More Junk food, Obese, Smoking, Alcohol Consumption and many other factors.

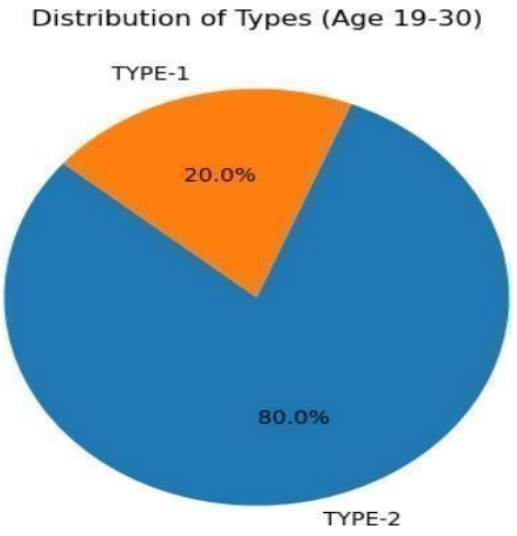


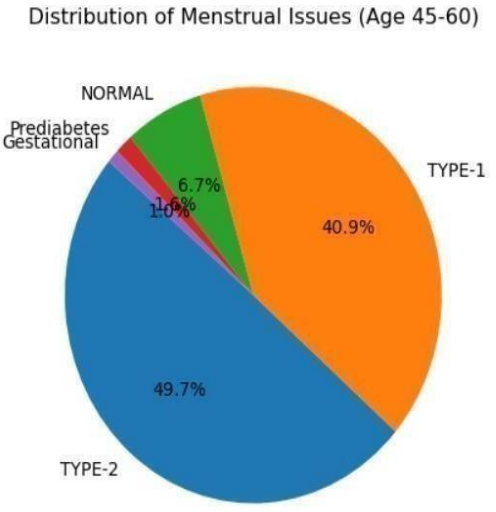
Performed analysis on the data by dividing the age column in the data into various bins drawing a pie chart based on number of diabetic cases.

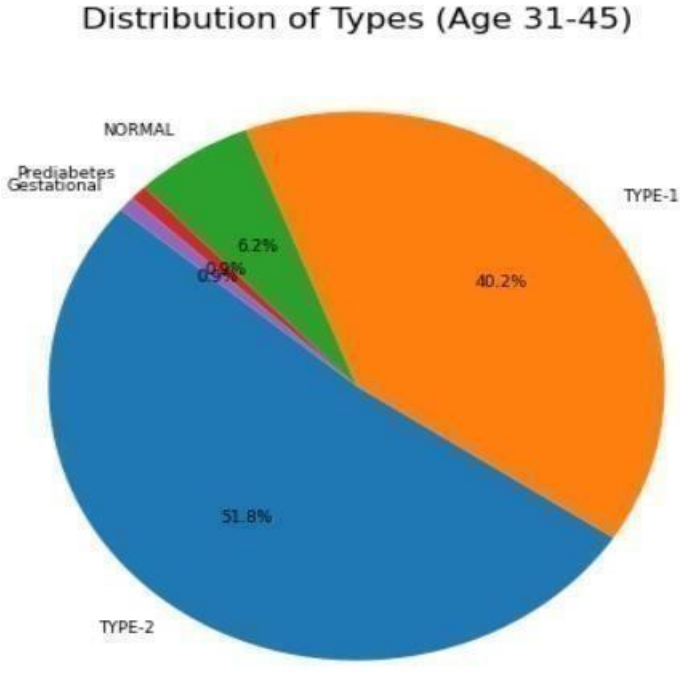
Overall, From age 0-18, there are 0.5% diabetic people, and in the age group 12-30, there are 1.2% diabetic people, and in the age group 31-45, there are 23% diabetic people, in the age group 46-60, there are 47.9% diabetic people, in the age group above 61,there are 27.7% diabetic people.

From the data analysis, arrived to the conclusion that people between 46-60 age group are being affected mostly by diabetes in India.

Percentages of types of Diabetes in Different Age Groups:







1. For the collected Data, we can state that people between age group 19-30, are prone to get Type-I and Type-II. From the analysis, the age also acts as a important factor in determining what type of diabetes people are facing.

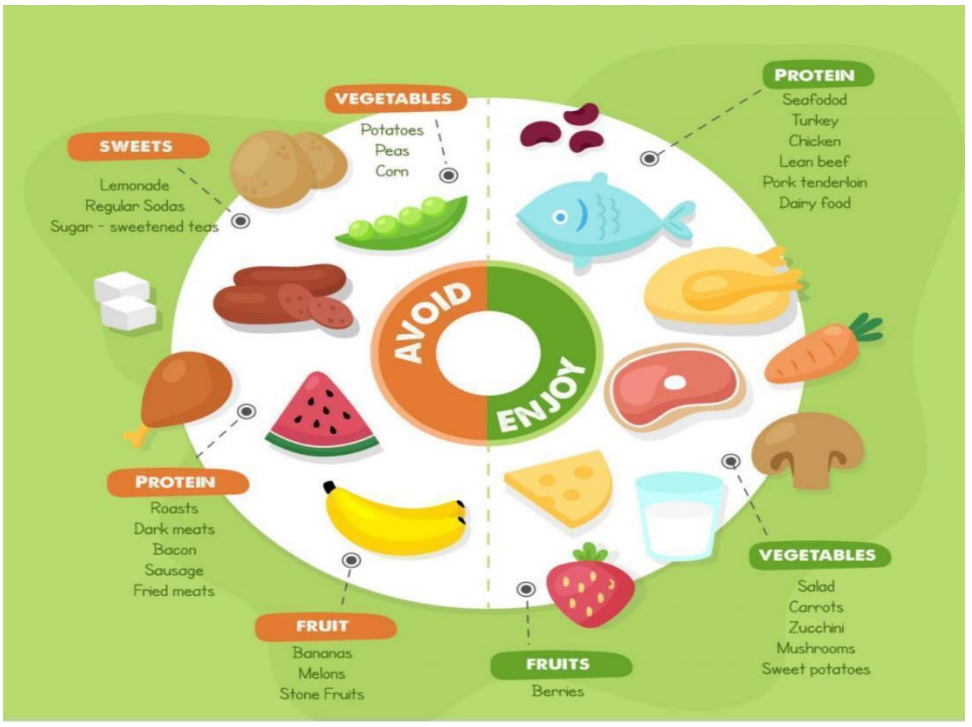
2. In the conclusion, Percent of people affected by different types varies based on age of the patient.

Meeting a Dietitian in Nandyal for Diabetic Diet Information Foods to be Avoided for Diabetic Patients:

The questionnaire asked to the dietitian:

1. How often should they eat throughout the day?
2. Will losing weight help people control diabetes?
3. How does exercise fit into the patient's healthy lifestyle plan?
4. What do patients need to look for on nutrition labels?
5. Do patients count their calories, to know if they are taking the right amount of food?
6. Can patients enjoy their life and eat their favorite food while controlling their blood sugar levels?

Diabetes Diet Chart:



WEEKLY REPORT

WEEK -7(Dt :)

Objective of the activity:

Created awareness to educate people, we set our journey to teach children how to adapt healthy life styles and tips.

Detailed Report:

The Diabetes Awareness Program at government school in Panyam, aimed to educate students, teachers, and staff about diabetes, its prevention and the importance of a healthy lifestyle.

Based on the data we have analyzed, in the previous week we have identified that in the recent days, Type-I diabetes has also been growing rapidly in number. And as we already knew that Type-I diabetes is mainly observed from young ages so we made a plan of

visiting a community of students. We spoke with the Head mistress about our idea to educate children, we were able to contact the children, and took a brief session on effects, precautions and measures to be followed.

The initial Problems we identified before our awareness are:

- Lack of proper understanding about juvenile diabetes.
- Due to lack of awareness, the children who are actually suffering might get Delayed Diagnosis.
- Unintentional Negligence of symptoms.
- Misunderstanding the treatment (instead of giving the insulin shots , giving them tablets).
- Affects child mental Health

Analysis of problems:

Detailed suggestions were given, in the presence of the physician, on how to regularly motivate children to maintain their health properly.

- Individual communication with the children
- Motivating them to avoid junk foods, and have a proper diet.
- Help students to attend community workshops and seminars.
- Collaborate with Healthcare Professionals for frequent checkups.
- Provide children with time-to-time information brochures, posters for the visual understanding of the seriousness of diabetes.
- Surveys and feedback sessions to collect insights and improve awareness programs in the future, with active involvement from students.

WEEKLY REPORT

WEEK-8(DT:)

Objective function of the activity:

Visiting a group of people in the poor economic scale, and conducted an awareness session.

Detailed Report:

Overview:

On the eighth week of the CSI project, based on analysis of the data, we observed that giving awareness to a group of people in the poor economic scale is at most necessary, So our team members together conducted an awareness session.

Initially, analysis of the problems with in the community is done to focus on the problem statements.

Problems identified are:

1. Lack of awareness about the risk factors, symptoms, and management of diabetes hinders prevention and early intervention efforts.
2. Late or missed diagnosis of diabetes, particularly Type 2, leads to complications and challenges.
3. Unequal access to reliable and culturally appropriate information, particularly in rural areas and marginalized communities
4. Lack of trained healthcare professionals in some areas, limiting access to screening and diagnosis.
5. Diabetes can have a profound impact on mental health, leading to depression, anxiety, and decreased quality of life.

Solutions suggested to the community:

1. Implement comprehensive educational programs to raise awareness about the risk factors, symptoms, and preventive measures for diabetes.

2. Conduct community outreach programs, workshops, and awareness campaigns.

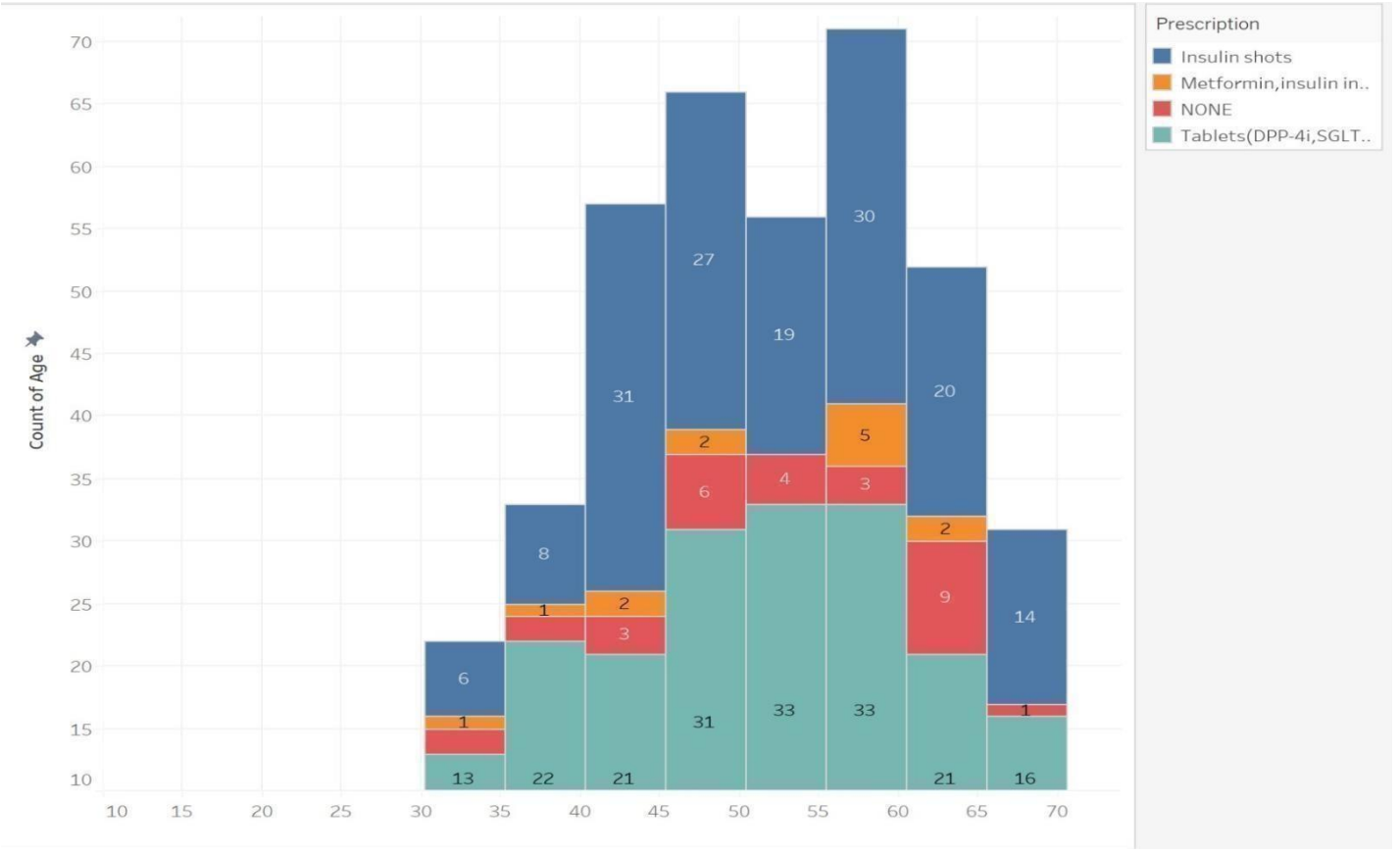
3. Establish local support groups and community-based programs.

4. Enhance access to healthcare services for diabetes prevention, diagnosis, and management.

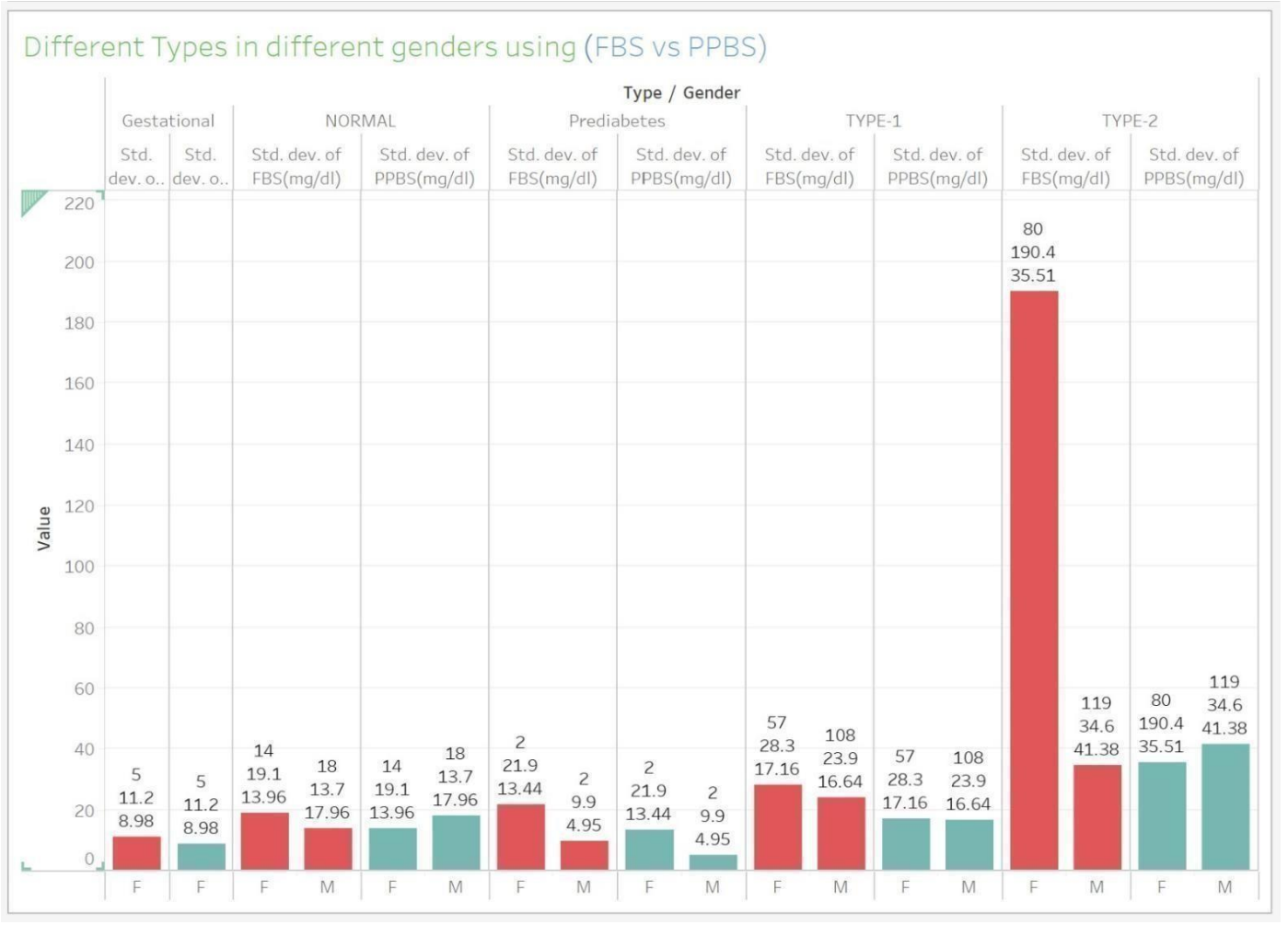
5. Provide counseling services and support groups for individuals and families.

CHAPTER 5: OUTCOMES DESCRIPTION

From the data we have analyzed:



- The above graph represents, the Histogram between Age and Prescription types given to the patients.
- Plotting the age in bins and plotted the prescriptions in the bars of the histograms to find out how many people are following a certain medication given by the doctors.
- As we can observe, The people between age group 55-60 are more affected by diabetes and in that age group 30 people are being treated with Insulin shots that is they are being treated for Type-I diabetes, 5 are being treated with Metformin, Insulin tablets and 3 of them are suggested a slight change in their diet plans with no medication to be followed , and 33 people are given tablets like DPP-4i, SGLT that is we can say that they are being treated for Type-II diabetes.



- The above graph represents the bar charts, that are plotted between the different Types for standard deviation values of FBS (Fasting Blood Sugar) and PPBS (Post Pranadial Blood Sugar) for the patient's data.
- We can observe that in females who are diagnosed for Type - II diabetes have high FBS levels that is 190.4, compare to males that is 41.38, and males have high PPBS levels that is 41.38, compared to females that is 35.5.

Project Description:

Type 1 Diabetes:

Cause:

- Type 1 diabetes is an autoimmune condition where the body's immune system mistakenly attacks and destroys insulin-producing beta cells in the pancreas.
- The exact cause need to explored yet, however the genetics and environmental factors may contribute to type 1 diabetes.

Onset:

- Typically diagnosed in childhood or adolescence.
- Accounts for about 5-10% of all diabetes cases.

Effects:

- Insulin Deficiency: The primary effect is a lack of insulin production. Insulin is essential for transporting glucose from the bloodstream into cells for energy.
- Hyper glycaemia: Without sufficient insulin, glucose accumulates in the blood, leading to high blood sugar levels.
- Ketoacidosis Risk: In the absence of insulin, the body may break down fats for energy, producing ketones. This can lead to diabetic ketoacidosis, a serious and potentially life-threatening condition.

Management:

- Insulin Therapy: People with Type 1 diabetes require lifelong insulin therapy.
- Blood Sugar Monitoring: Regular monitoring of blood glucose levels is essential.
- Healthy Lifestyle: While not a preventive measure, a healthy lifestyle can help manage blood sugar levels effectively.

Type 2 Diabetes:

Cause:

- Type 2 diabetes is characterized by insulin resistance, where the body's cells do not respond effectively to insulin, and later, by a relative insulin deficiency.
- Risk factors include genetics, obesity, sedentary lifestyle, and age.

Onset:

- Typically diagnosed in adulthood, but increasingly seen in children and adolescents.
- Accounts for the majority of diabetes cases worldwide (around 90%).

Effects:

- Insulin Resistance: Cells do not respond properly to insulin, leading to elevated blood glucose levels.
- Hyper glycaemia: Over time, the pancreas may lose its ability to produce enough insulin.

Management:

- Lifestyle Modifications: Healthy eating, regular physical activity, and weight management are crucial.
- Oral Medications or Insulin: Depending on the progression of the disease, medications or insulin therapy may be prescribed.
- Blood Sugar Monitoring: Regular monitoring is essential for managing blood glucose levels.

Gestational Diabetes:

Cause:

- Develops during pregnancy when the body cannot produce enough insulin to meet the increased needs, leading to elevated blood glucose levels.

Effects:

- Risk for Mother and Baby: Gestational diabetes increases the risk of complications during pregnancy and delivery. It may also increase the risk of Type 2 diabetes later in life for both mother and child.

Management:

- Blood Sugar Monitoring: Regular monitoring of blood glucose levels during pregnancy.
- Lifestyle Changes: Dietary modifications and physical activity may be recommended.
- Insulin Therapy if Needed: Some women may require insulin to manage blood sugar levels.

Overall, Questionnaire prepared for the survey to gather information and generate insights to promote awareness:

- What are the different types of diabetes?
- How common is diabetes?
- Who is more likely to develop type 2 diabetes?
- What health problems can people with diabetes develop?
- What is type 1 diabetes?
- Who is more likely to develop type 1 diabetes?
- What are the symptoms of type 1 diabetes?
- What causes type 1 diabetes?
- How do health care professionals diagnose type 1 diabetes?
- What medicines do I need to treat my type 1 diabetes?
- How else can I manage type 1 diabetes?
- Do I have other treatment options for my type 1 diabetes?
- What health problems can people with type 1 diabetes develop?

- Can I lower my chance of developing type 1 diabetes?
- What causes type 2 diabetes?
- How do health care professionals diagnose type 2 diabetes?
- How can I manage my type 2 diabetes?
- What medicines do I need to treat my type 2 diabetes?
- What health problems can people with diabetes develop?
- How can I lower my chances of developing type 2 diabetes?

CHAPTER 6: RECOMMENDATIONS AND CONCLUSIONS OF THE SERVICE PROJECT

CONCLUSION 1:

- Over the course of our project, the focus was on diabetes and chronic diseases, we embarked on a comprehensive exploration of these health issues, seeking to enhance awareness, promote preventive measures, and empower individuals with knowledge for healthier living.

- One of the primary objectives of our project was to raise awareness about diabetes and chronic diseases within our community. Through engagement initiatives, we successfully disseminated crucial information regarding the causes, symptoms, and preventive measures Associated with these health conditions.

- Through the engagement with a dietitian and practical demonstrations, our project emphasized the significance of nutrition and lifestyle choices in preventing and managing diabetes. The shift towards healthier snack options and the incorporation of physical activity in daily routines reflected a positive change in behavior.

CONCLUSION 2:

- In conclusion, our diabetes awareness project has been a significant endeavor aimed at addressing the multifaceted challenges Associated with diabetes. Through a thorough analysis of the data collected, we have gained valuable insights that not only highlight the existing problems but also provide a foundation for future decision-making.

PHOTOS

Student Self-Evaluation for the Community Service Project

Name of the Student	**:** S. UMAR KHAJA
Registration Number	**:** 23091A32H4
Period of CSP	**:** from: 25/07/24 to: 00/00/00
Date of Evaluation	**:**
Name of the person in-charge	**:** Ms. A. Annapurna
Address with Mobile Number	**:**

Please rate your performance in the following areas: ----

ating Scale: 1 is lowest and 5 is highest rank

1) Oral Communication	**1**	**2**	**3**	**4**	**5**
2) Written Communication	**1**	**2**	**3**	**4**	**5**
3) Pro activeness	**1**	**2**	**3**	**4**	**5**
4) Interaction Ability With Community	**1**	**2**	**3**	**4**	**5**
5) Positive Attitude	**1**	**2**	**3**	**4**	**5**
6) Self-Confidence	**1**	**2**	**3**	**4**	**5**
7) Ability To Learn	**1**	**2**	**3**	**4**	**5**
8) Work Plan And Organization	**1**	**2**	**3**	**4**	**5**
9) Professionalism	**1**	**2**	**3**	**4**	**5**
10) Creativity	**1**	**2**	**3**	**4**	**5**
11) Quality Of Work Done	**1**	**2**	**3**	**4**	**5**
12) Time Management	**1**	**2**	**3**	**4**	**5**
13) Understanding The Community	**1**	**2**	**3**	**4**	**5**
14) Achievement Of Desired Outcomes	**1**	**2**	**3**	**4**	**5**
15) Overall Performance	**1**	**2**	**3**	**4**	**5**

Date: **Signature of the Student**

Evaluation by the Person in-charge in the Community Service Project

Student Name	**:** S. UMAR KHAJA
Registration No	**:** 23091A32H4
Period of CSP	**:** from: 00/00/00 to: 00/00/00
Date of Evaluation	**:**
Name of the person in-charge	**:** Ms. A. Annapurna
Address with Mobile Number:	

Please rate the student's performance in the following areas:

Please note that your evaluation shall be done independent of the Student's self-evaluation

Rating Scale : 1 is lowest and 5 is highest rank

1) Oral Communication	**1**	**2**	**3**	**4**	**5**
2) Written Communication	**1**	**2**	**3**	**4**	**5**
3) Pro activeness	**1**	**2**	**3**	**4**	**5**
4) Interaction Ability with Community	**1**	**2**	**3**	**4**	**5**
5) Positive Attitude	**1**	**2**	**3**	**4**	**5**
6) Self-Confidence	**1**	**2**	**3**	**4**	**5**
7) Ability to Learn	**1**	**2**	**3**	**4**	**5**
8) Work Plan and Organization	**1**	**2**	**3**	**4**	**5**
9) Professionalism	**1**	**2**	**3**	**4**	**5**
10) Creativity	**1**	**2**	**3**	**4**	**5**
11) Quality Of Work Done	**1**	**2**	**3**	**4**	**5**
12) Time Management	**1**	**2**	**3**	**4**	**5**
13) Understanding the Community	**1**	**2**	**3**	**4**	**5**
14) Achievement of Desired Outcomes	**1**	**2**	**3**	**4**	**5**
15) Overall Performance	**1**	**2**	**3**	**4**	**5**

Date: **Signature of the Supervisor**