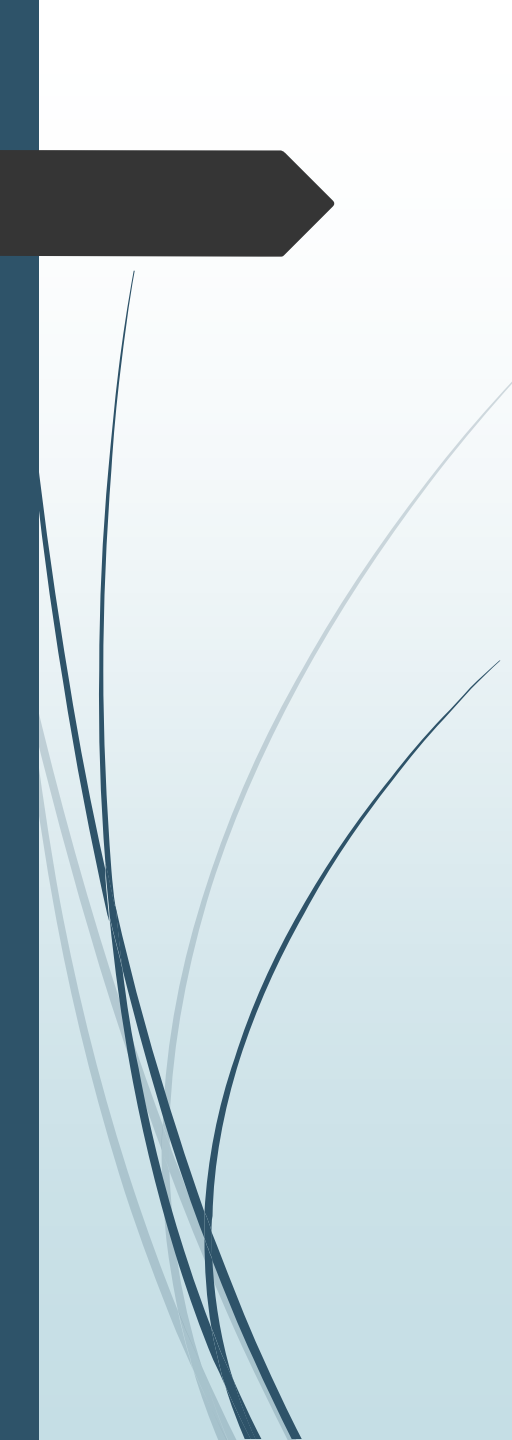




Assessing the knowledge attitude and practice of type 2 diabetic patients in Rajasthan

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MBA-HM 22



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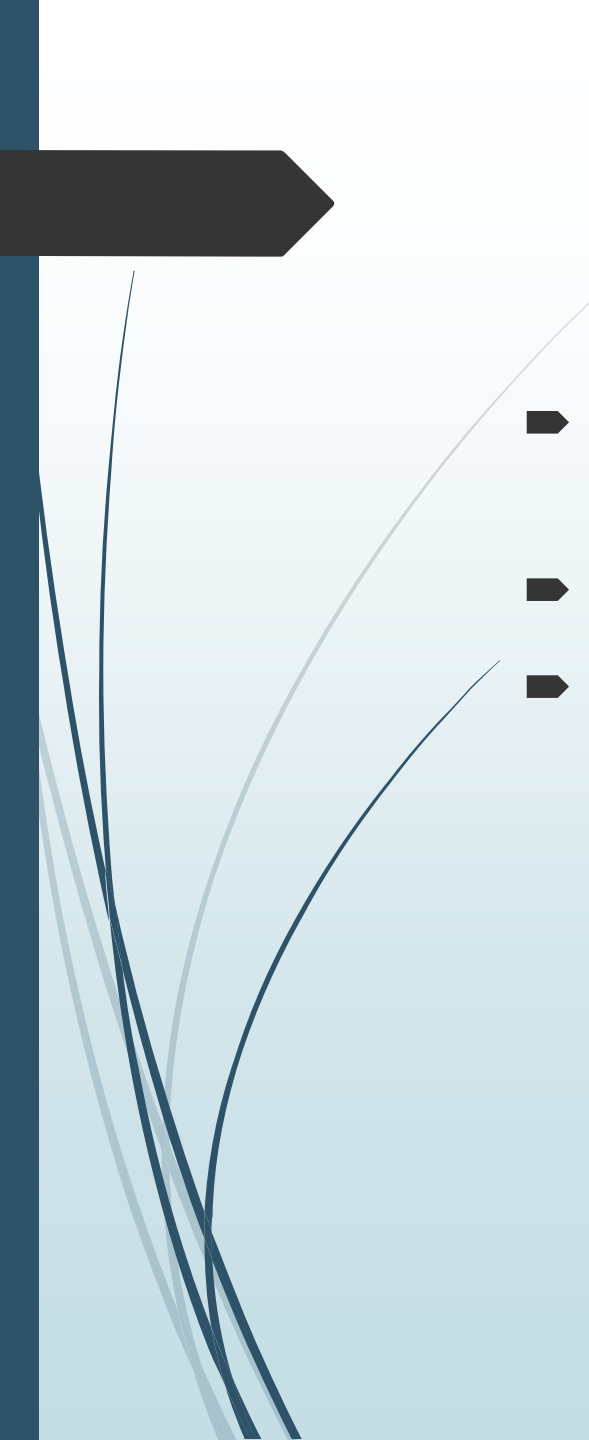
Organization Overview:

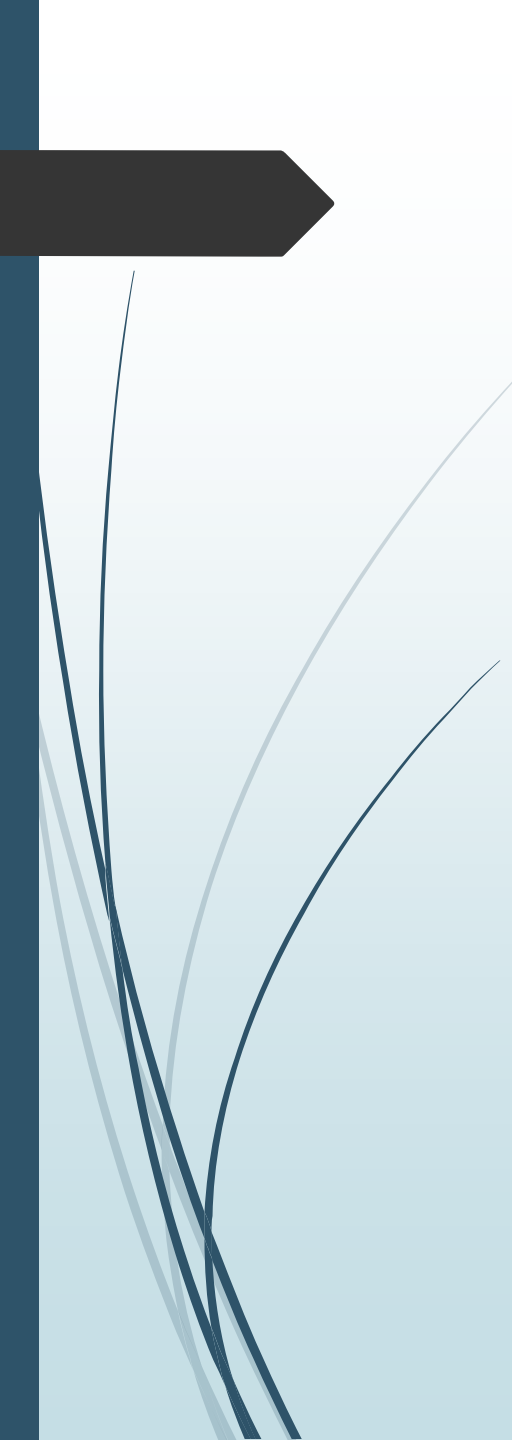
- In 1982, [Dennis Gillings](#) founded and incorporated Quintiles Transnational in [North Carolina](#).
- Over the course of 2016, concluding on October 3, Quintiles underwent a \$17.6 billion merger with [IMS Health](#), becoming QuintilesIMS.
- In November 2017, the company adopted the new name of IQVIA.
- **IQVIA** is a leading global provider of information, innovative technology solutions and contract research services focused on using data and science to help healthcare clients find better solutions for their patients.



Introduction

- India is referred as diabetes capital of world.
- IDF 2013 report reveals that the total no.of diabetes patients in India is 381 million and the no.is projected to almost double in 2030.
- The WHO estimates that diabetes resulted in 1.5 million deaths in 2012, making it the 8th leading cause of death.

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- Diabetes currently affects more than 62 million Indians, which is more than 7.1% of the adult population.
 - 70 % of the diabetes cases occur in low- and middle-income countries.
 - The increase in incidence of diabetes in developing countries is because of the increasing sedentary lifestyle, less physical demand work, increased intake of high calorie diets, and nutrition poor diet.



Rationale

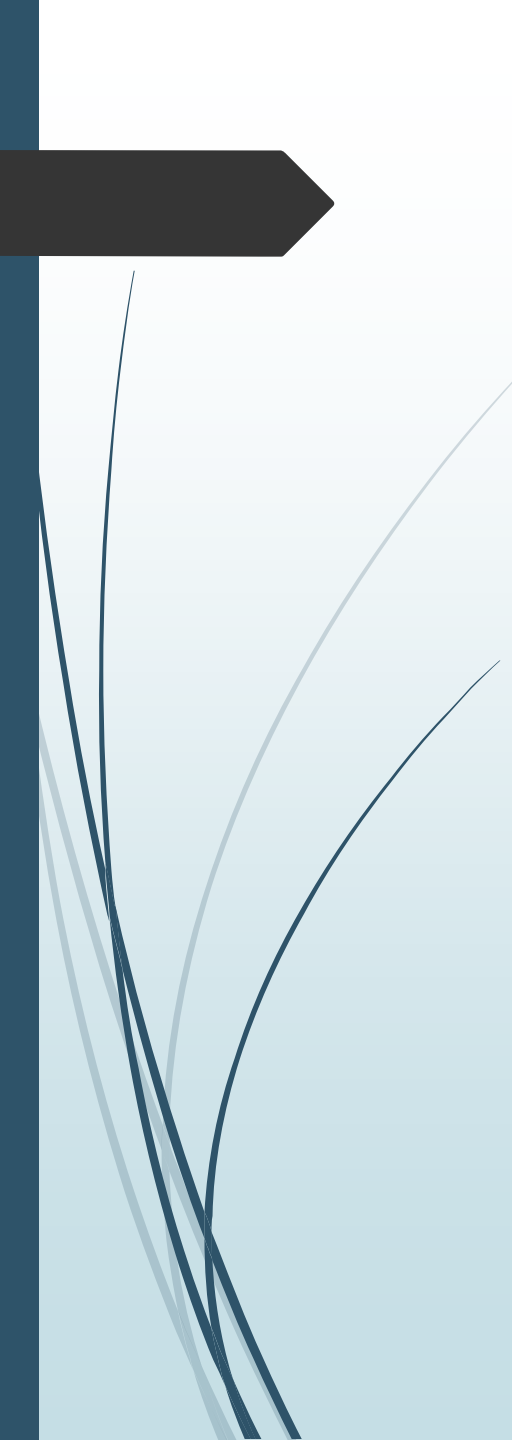
- The incidence of diabetes increases exponentially, and this study will help the policy makers in designing the strategies to combat the increasing burden of diabetes.
- Increasing patient knowledge regarding disease & its complications has significant benefits with regard to patient compliance to treatment & to decrease complications associated with the disease.



Literature Review

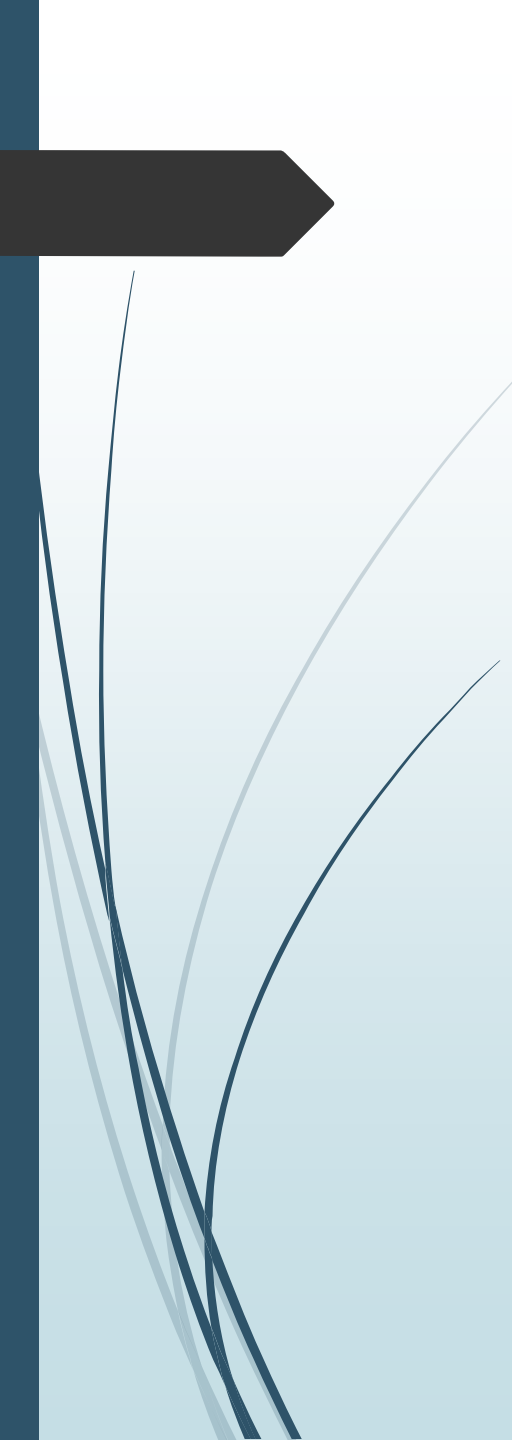
- A cross sectional study was conducted in CMC ,Ludhiana for knowledge of diabetes, its treatment and complications among diabetic patient in tertiary care hospitals.
- This study confirms that patient knowledge about the treatment and complications of diabetes is limited, especially with regards to preventive aspects.
- A study conducted for awareness and knowledge of diabetes in Chennai-The Chennai Urban Rural Epidemiology study awareness and knowledge regarding diabetes is still grossly inadequate in India. Massive diabetes education programmes are urgently needed both urban and rural India.

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- Another study conducted by Department of Family Medicine and Public Health, College of Medicine and Health Sciences, Sultani Qaboos University, Oman.
 - This study demonstrated that there is lack of awareness of major risk factors for diabetes mellitus. Level of education is the most significant predictor of knowledge regarding risk factors, complications and the prevention of diabetes.
 - Prevalence of diabetes has increased drastically in Oman over the last decade so, health promotions seems essential, along with other means to prevent and control the emerging health problem.



Objective

- To assess the knowledge, attitude and practice of diabetic patients by visiting the medicine OPD in the hospitals of Rajasthan.
- To compare the knowledge, attitude and practice of type 2 diabetic patients between male and female.
- To compare the attitude and practice between educated and non educated diabetic patients.



Methodology

Study design:

A cross sectional study has been done by using a structured questionnaire

Study area:

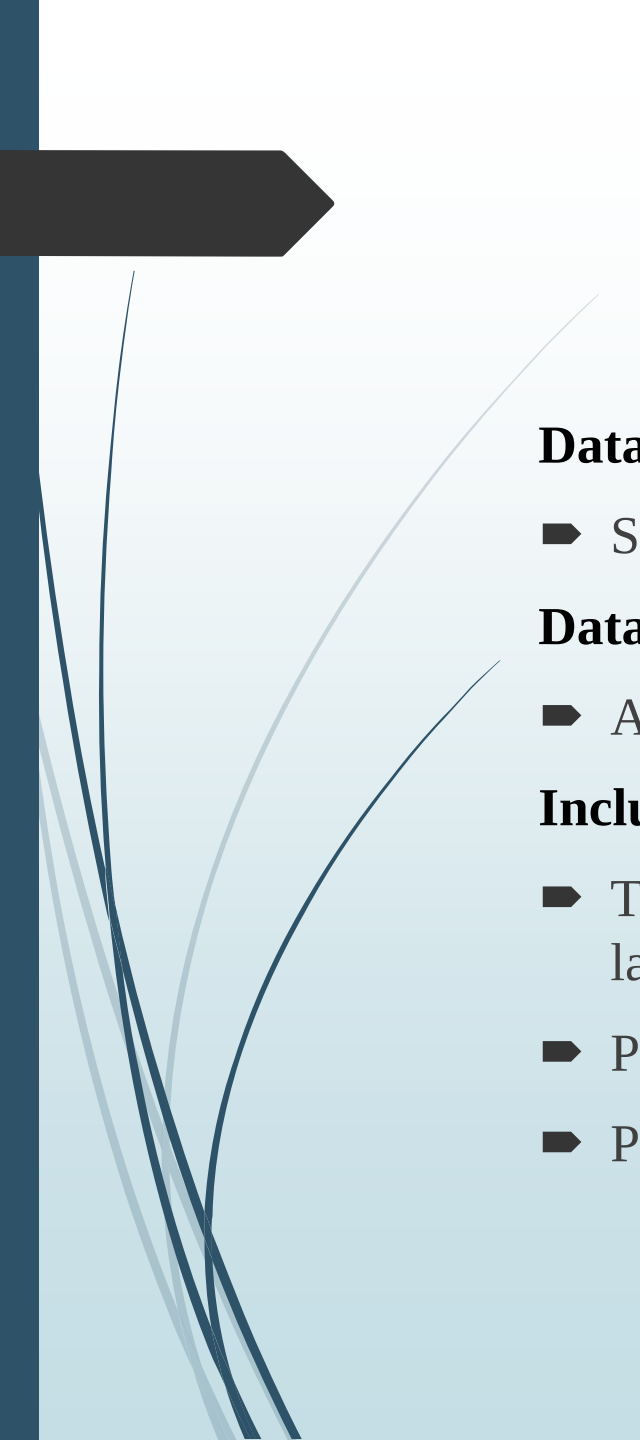
Tertiary care hospitals

Sampling method:

Non – probability convenience sampling

Sample Size:

150 diabetic patients



Data collection tool:

- Structured questionnaire is used for the collection of data.

Data Analysis:

- Analysis has been done by using the MS Excel.

Inclusion criteria:

- The inclusion criteria for the cases included diagnosed cases of diabetes during last 1 year.
- Patients above the age of 30 years.
- Patients visiting the medicine OPD in the hospitals of Rajasthan.



Exclusion criteria:

- Patients below the age of 30 years
- Patients who have been diagnosed in less than one year
- Patients visiting other than medicine OPD



Hospital included to collect sample

- Jyoti kiran hospital
- Maru Dhar hospital
- Rajdhani hospital
- Agarwal hospital, Tonk
- Mittal hospital and research centre
- Dhanvantri hospital
- Jaipur hospital
- Chandrabhan hospital

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- Shekawati hospital
 - S.R kalla memorial hospital
 - Aashish hospital
 - Chirayu hospital
 - Apex hospital, Malviya nagar
 - Apex hospital, Mansrover
 - Metro mass hospital



Analysis and Interpretation

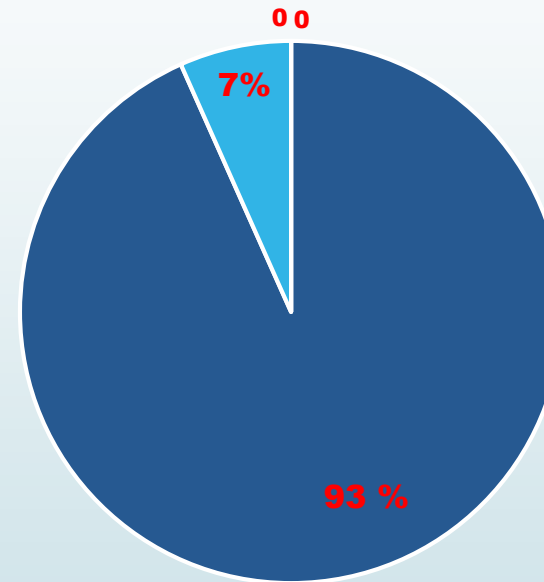
What is Diabetes Mellitus?

Interpretation

93 % of the whole study population reported that they knew about a condition called diabetes and it is raise in sugar level

7 % were not aware of it

Knowledge about diabetes



- High sugar level in blood
- Either high or low level of blood sugar
- Low level of sugar in blood
- Don't know

Interpretation

22 men and only 17 women were aware of slow healing of wounds.

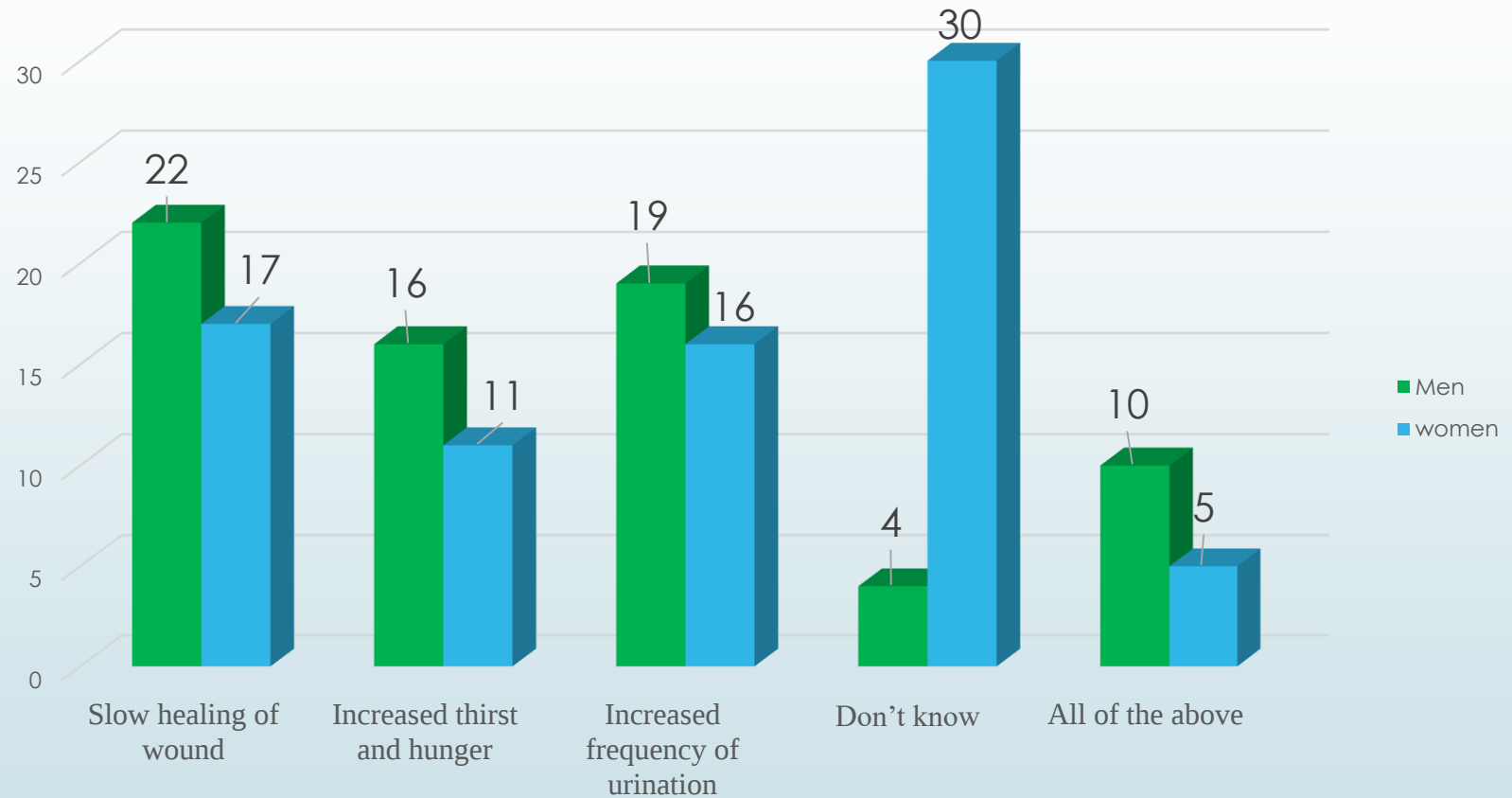
16 men and 11 women were aware about increased thirst and hunger.

19 men and 16 women were fully aware about increased frequency of urination

4 men and 30 women don't know anything about the symptoms of diabetes.

Only 10 men and 5 women are fully aware about the disease.

Knowledge of symptoms of disease



This result shows that the knowledge level of diabetes in women is limited

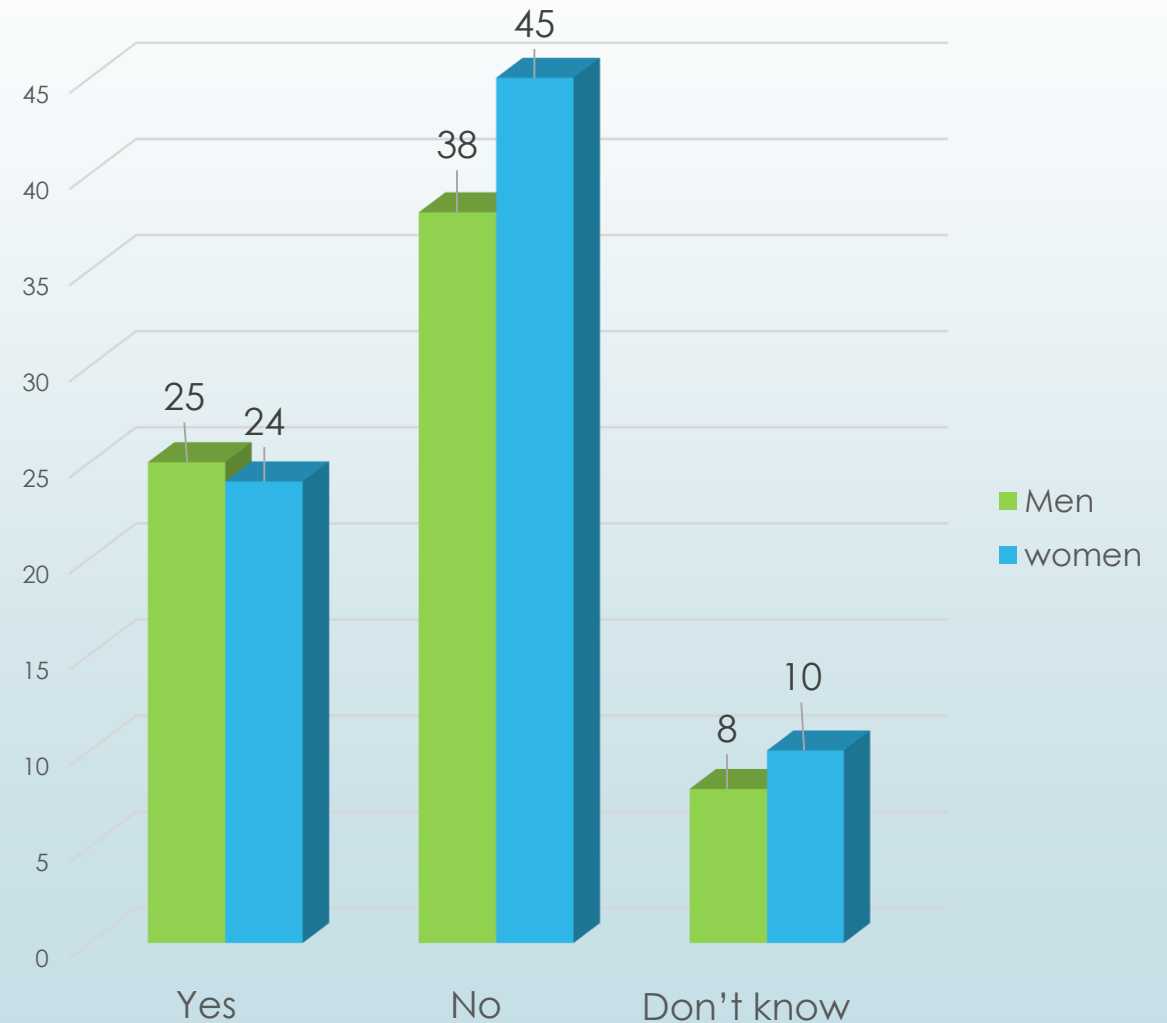
What is the level of sugar in blood that is considered normal?

Interpretation:

As we have seen from the graph that 25 men and 24 women give correct answer about the normal level of sugar in blood.

38 men and 45 women give wrong answer about normal level of sugar in blood.

8 men and 10 women don't know about normal level of sugar in blood.



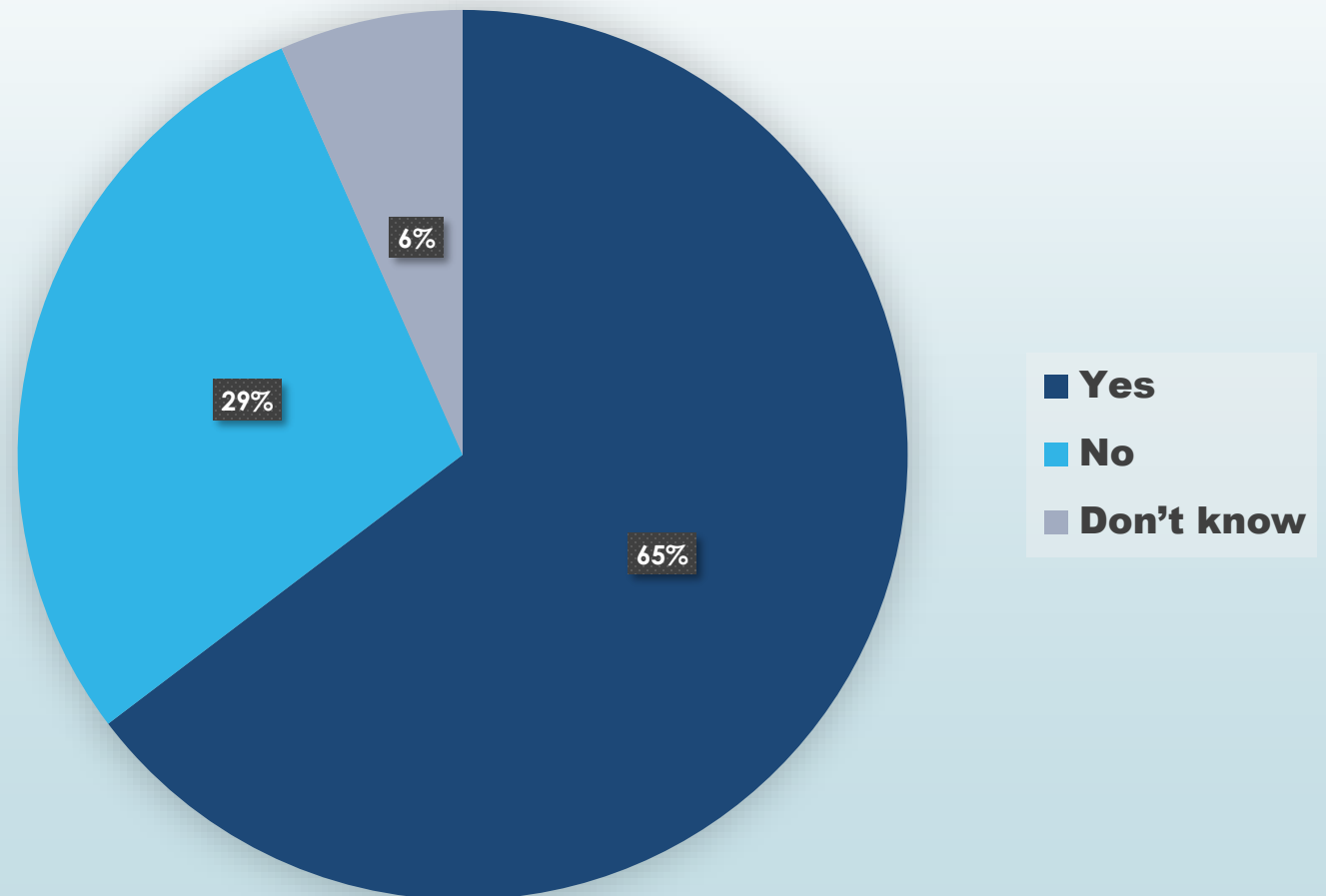
Do you think, in general, more and more people are getting affected with diabetes nowadays?

Interpretation

Only 65 % people are aware about prevalence of disease.

While 29 % are not aware about prevalence of disease.

Knowledge about prevalence of disease



• Interpretation

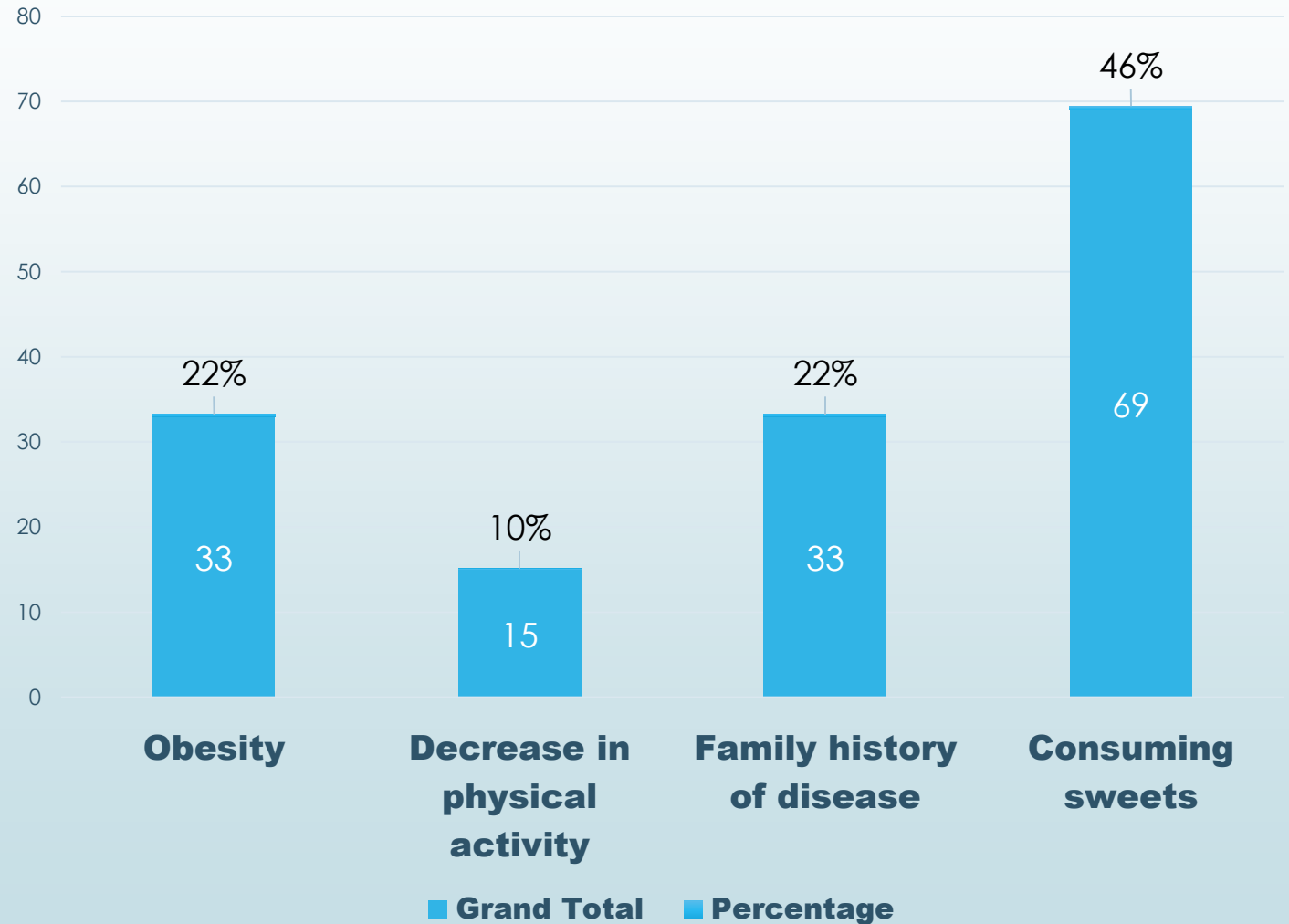
46 % of the participants felt that consuming sweets was main cause of diabetes.

33 % of the participants felt that family history of disease was one of the cause of diabetes.

22 % felt that obesity is the reason for diabetes.

10 % felt that decrease in physical activity was reason causing diabetes

Knowledge of factors causing diabetes



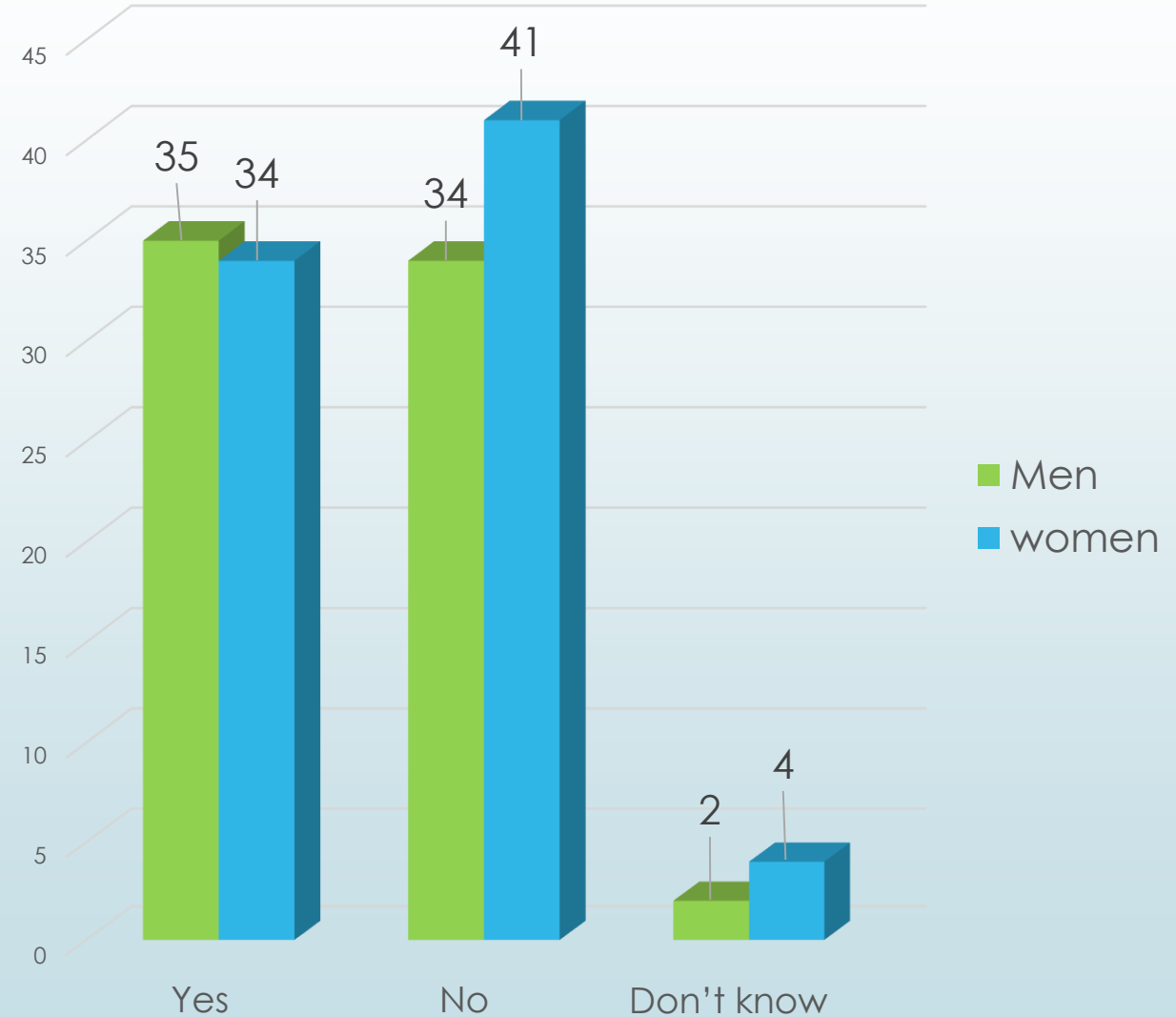
Do you know that diabetes can cause complications in other organs?

Interpretation

34 women and 35 men said that diabetes can cause complications.

whereas, 41 women said that diabetes cannot cause complications while 34 men said that diabetes cannot cause complications.

2 men and 4 women don't know about this.



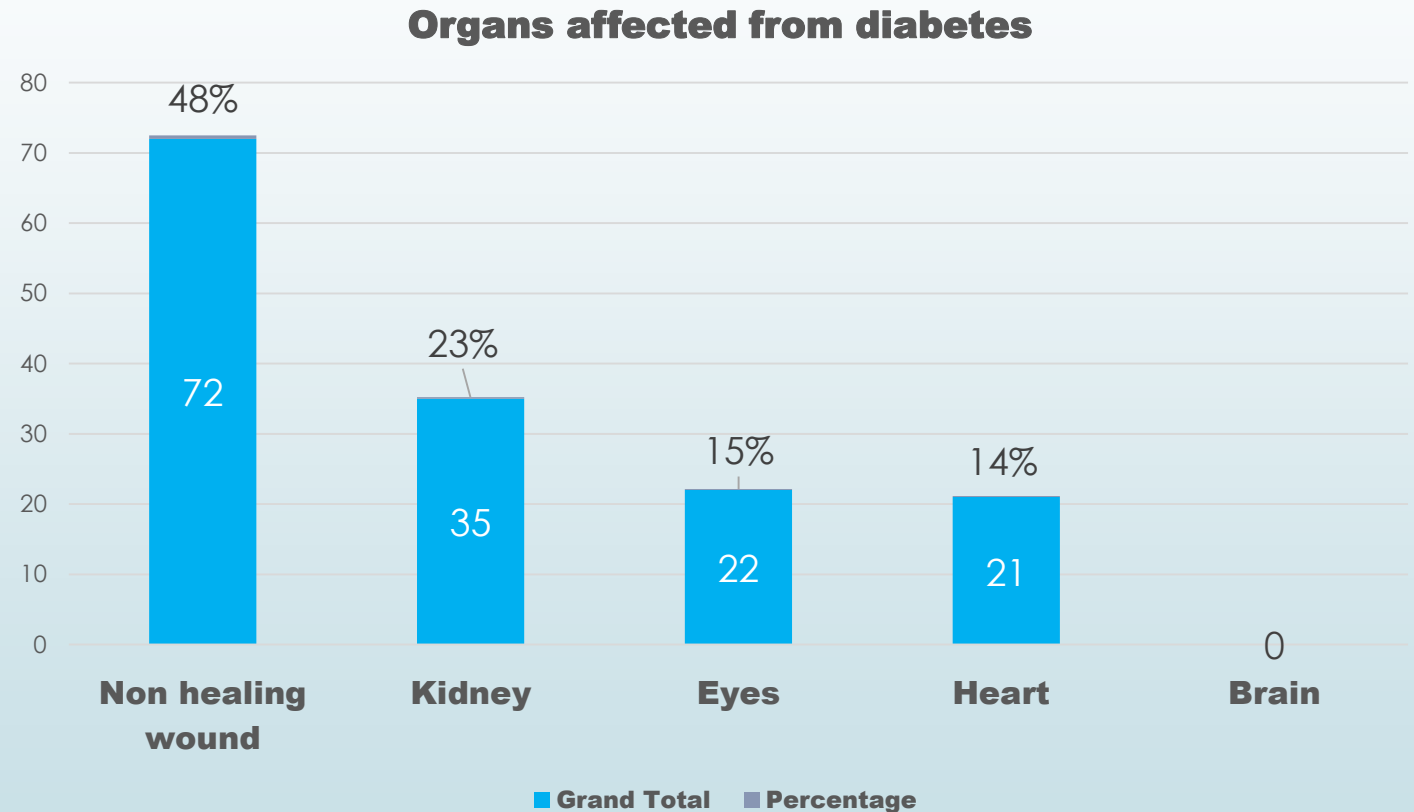
Which organs are affected from the complications of diabetes?

Interpretation

48 % said that non healing of wound occur in case of diabetes.

23 % said kidney is affected from diabetes

whereas 15 % said eyes and 14 % said heart is affected from diabetes.

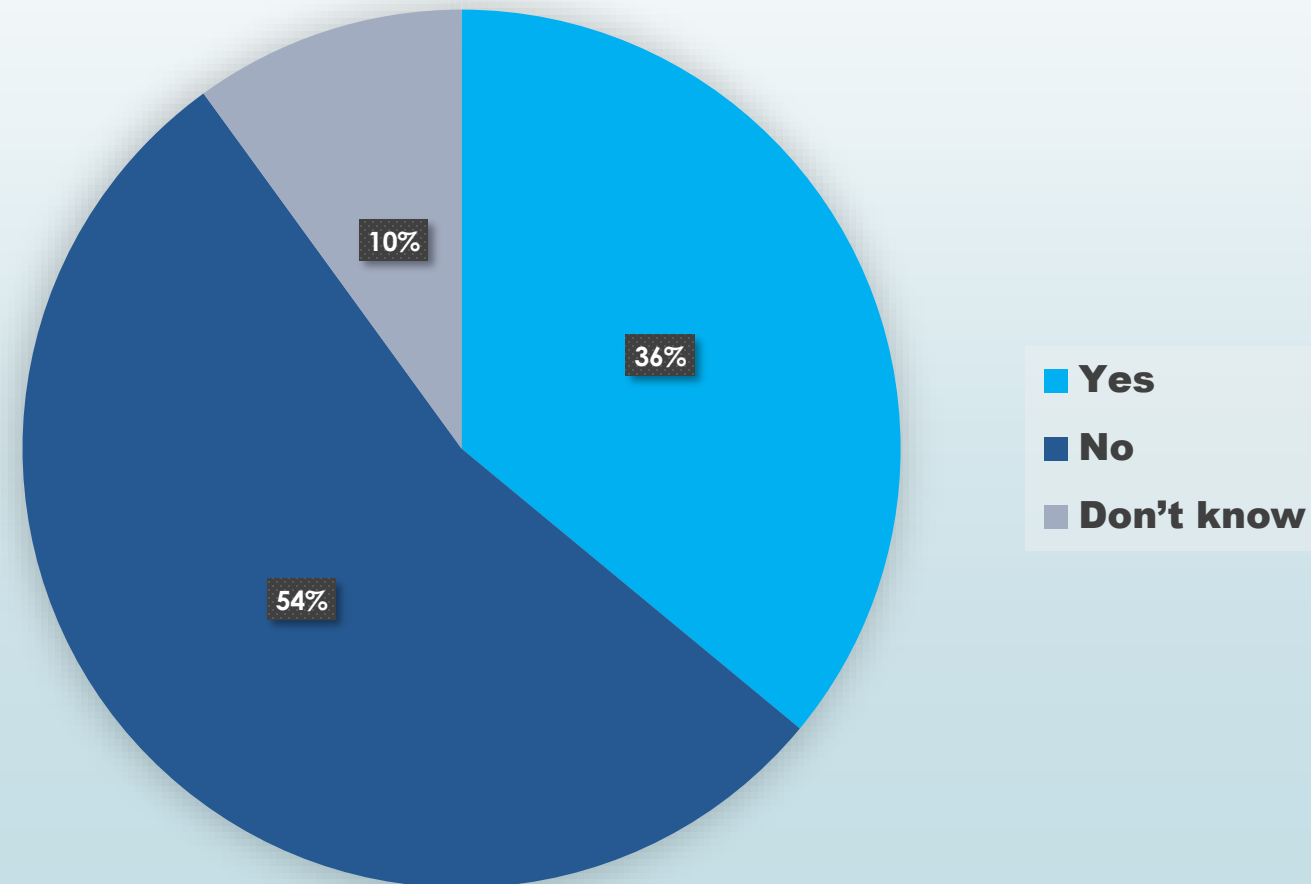


Can diabetes be cured permanently?

Interpretation

54 % respondents said that diabetes is not curable whereas 36 % said it is curable and 10 % don't know about this.

Is diabetes curable?



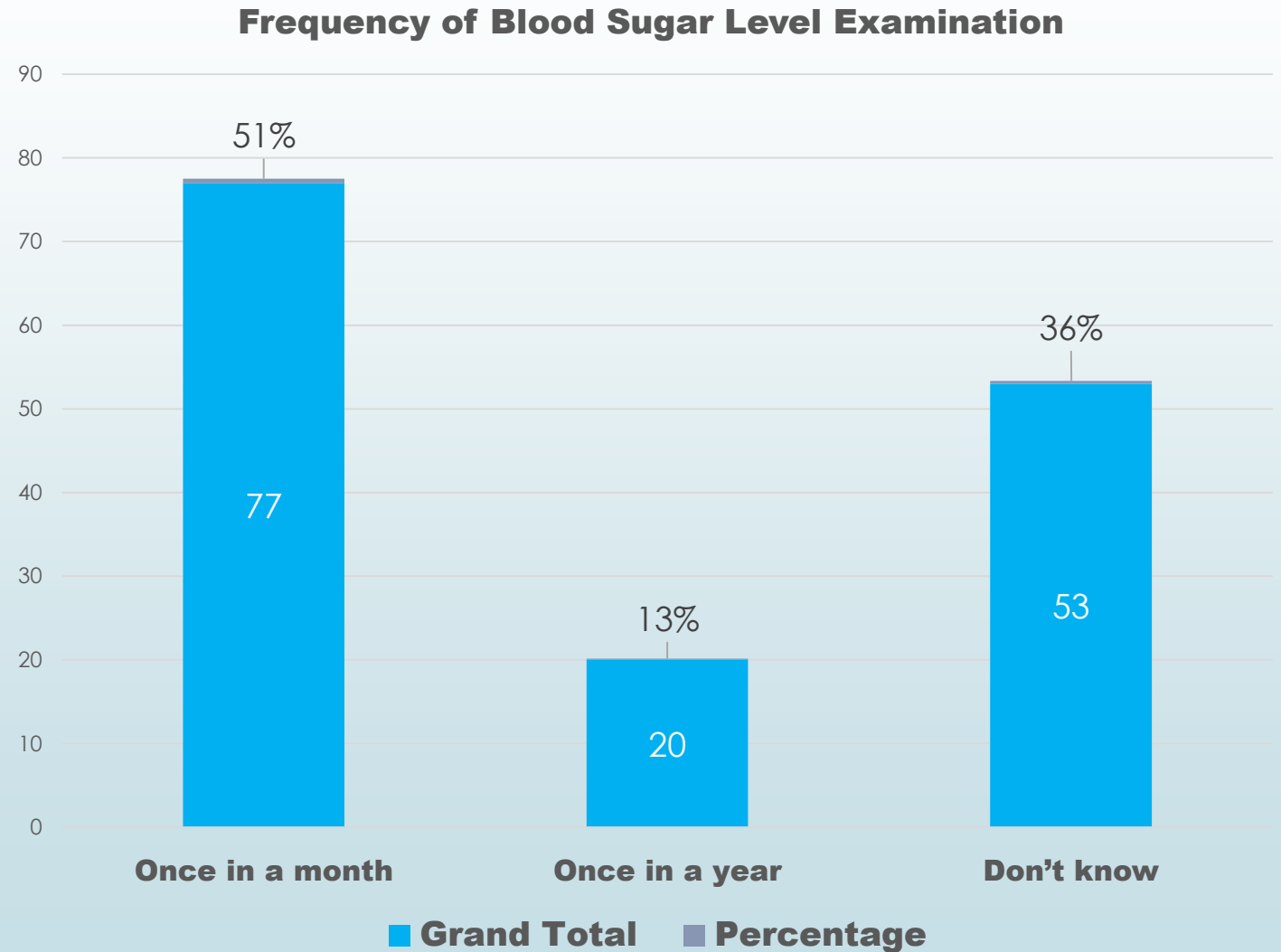
Whether you regularly checking blood sugars and checkup?

Interpretation

Only 51 % said they do blood sugar examination once in a month.

13 % said they do blood sugar examination once in a year or unless it is not required

36 % don't know about the blood sugar examination.



Whether DM treatment requires diet control?

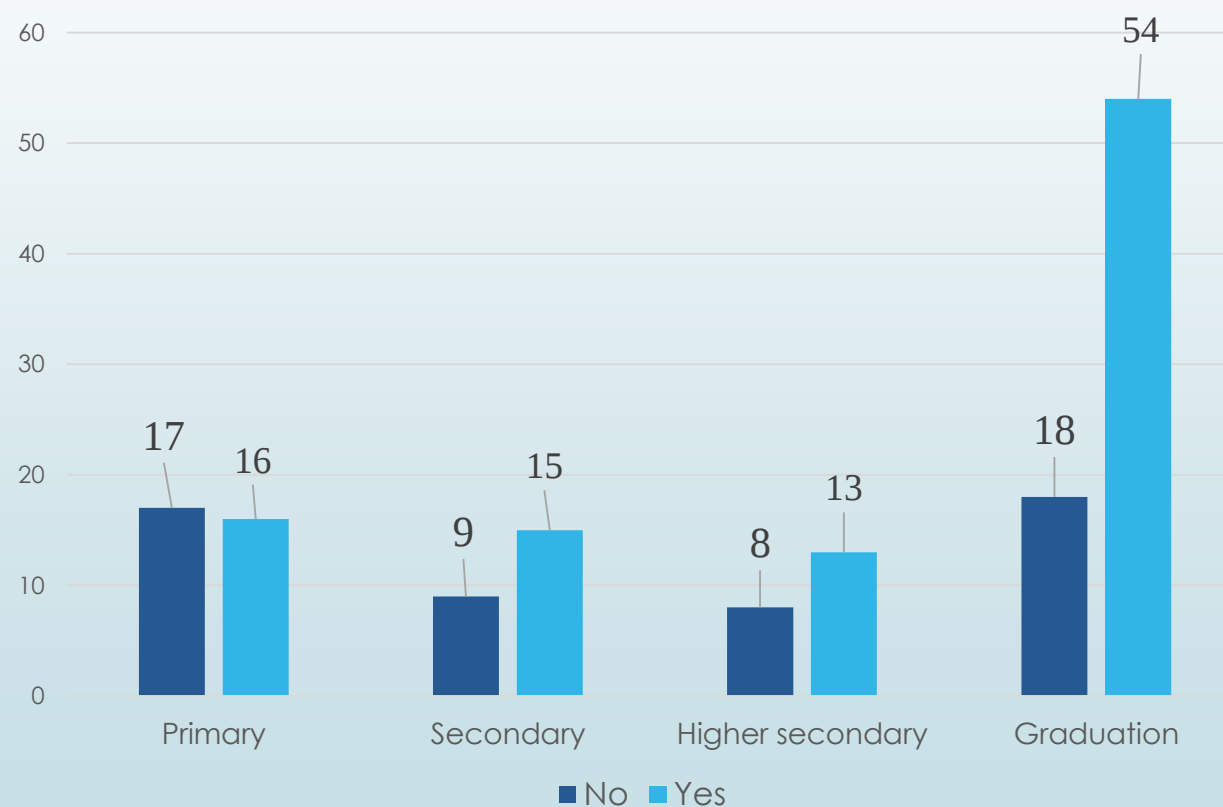
Knowledge of diet in diabetics

Interpretation

Out of 150 respondents 33 are primary educated out of which 17 said diet modification is not important while 16 said that diet modification is important.

Out of 150 respondents 24 respondents secondary in which 9 respondents said that diet modification is not important while 15 respondents said that diet modification is important.

Out of 150 respondents 21 respondents are higher secondary in which 8 said diet modification is not important while 13 said that diet modification is important





Cont....

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- Out of 150 respondents 72 are graduated in which 54 said diet modification is important and 18 said diet modification is not important.

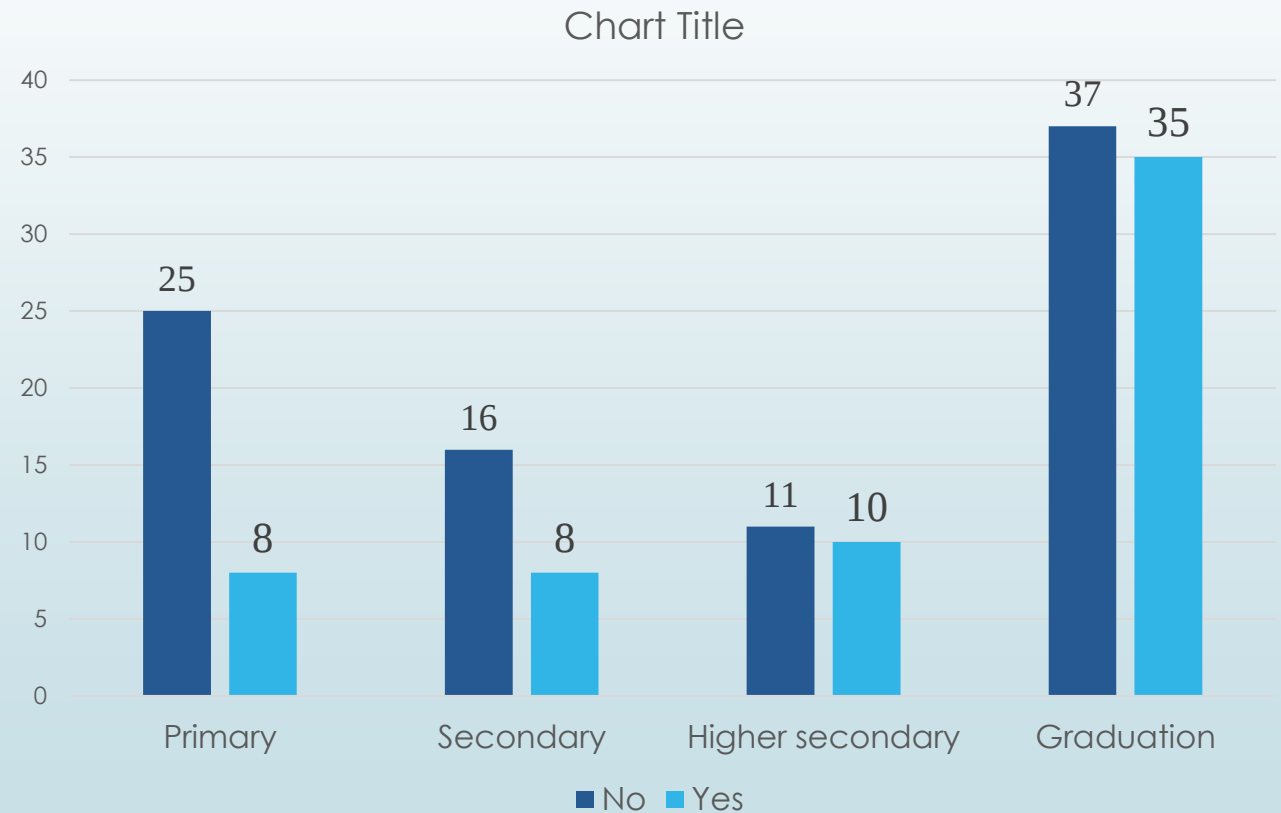
Q.10.Do you modify your diet?

Interpretation

Out of 33 primary educated respondents who said diet modification is important only 8 respondents modify their diet and 25 didn't modify their diet.

Out of 24 secondary educated respondents who said diet modification is important only 8 respondents modify their diet and 16 didn't modify their diet.

Out of 21 higher secondary educated respondents who said diet modification is important only 10 respondents modify their diet and 11 didn't modify their diet.





Cont....

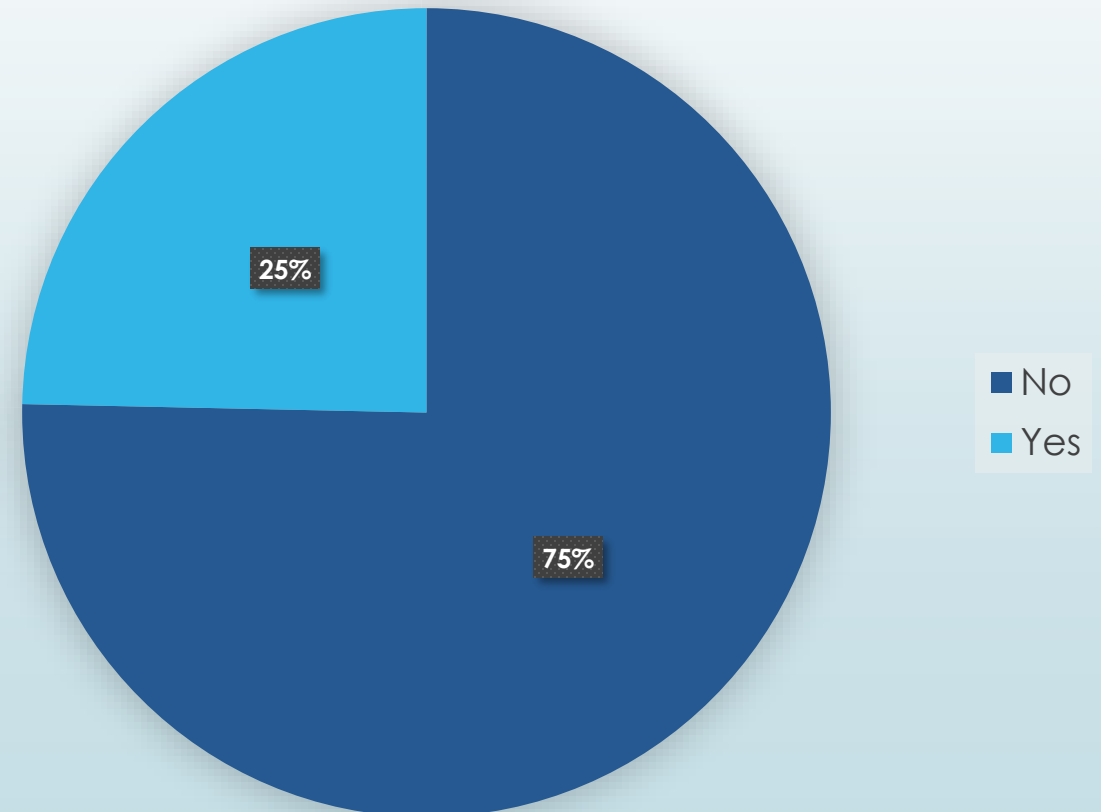
- Out of 72 graduated respondents who said diet modification is important only 35 respondents modify their diet and 37 didn't modify their diet

Do you exercise regularly to keep weight under control?

Interpretation

75 % respondents don't do exercise
only 25 % respondents do exercise.

Practice of exercise



Which lifestyle modification is required for diabetic patients?

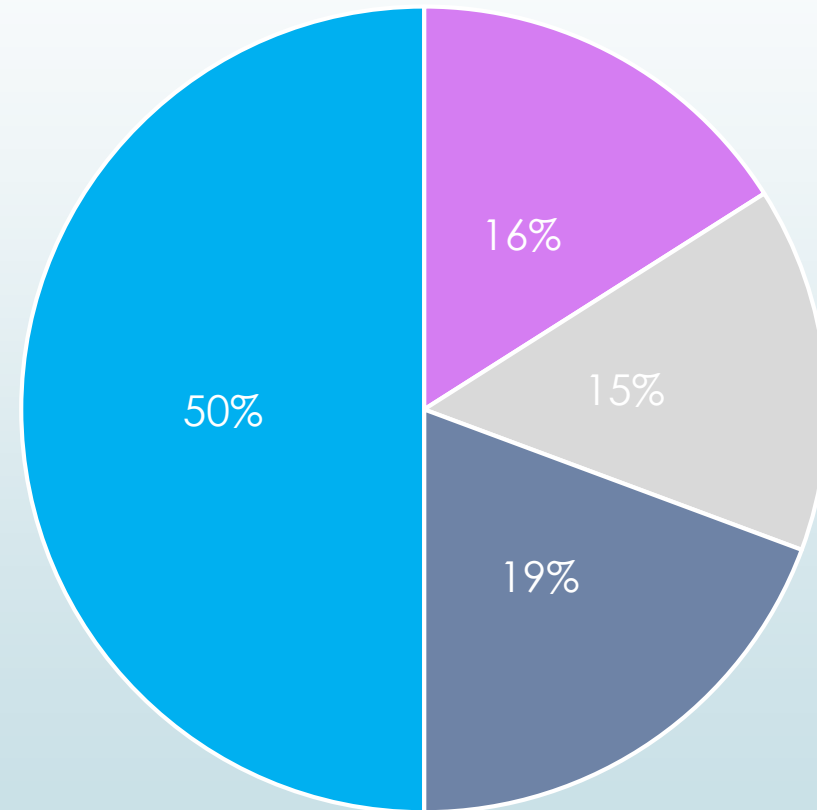
Interpretation

only 50 % respondents said that all of the factors is important to prevent diabetes

while 16 % said that obesity is the factor to prevent diabetes and 15 % said stop smoking can prevent diabetes

9 % said stop alcohol intake can prevent diabetes.

Knowledge of lifestyle modification



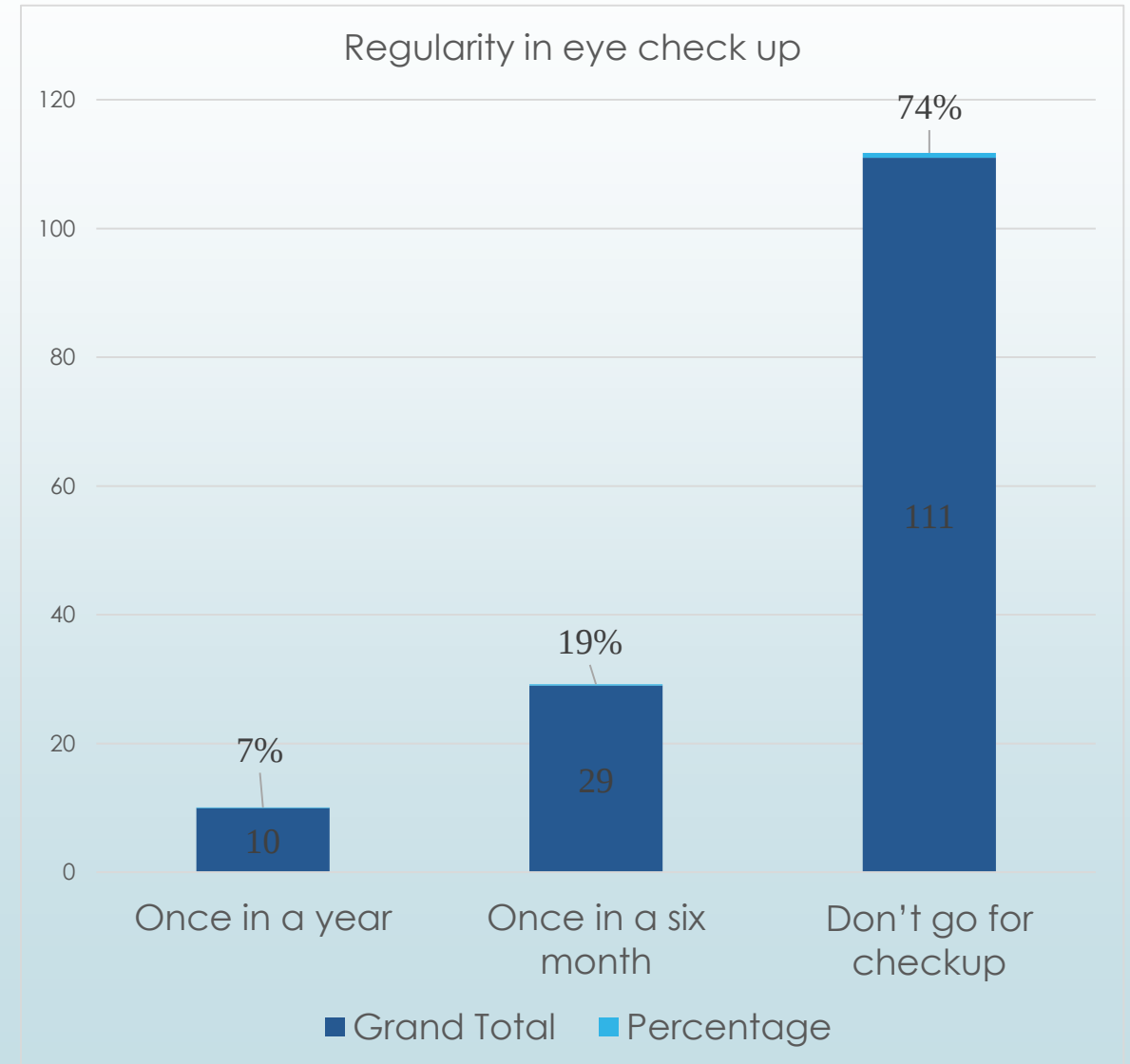
■ Weight reduction ■ Stop smoking
■ Stop alcohol intake ■ All of the above

In how many time diabetic patient should have his or her eye checked?

Interpretation

74 % respondents don't go for checkup.

While 19 % said that they go for check one in a six month and 7 % people go for check up once in a year.

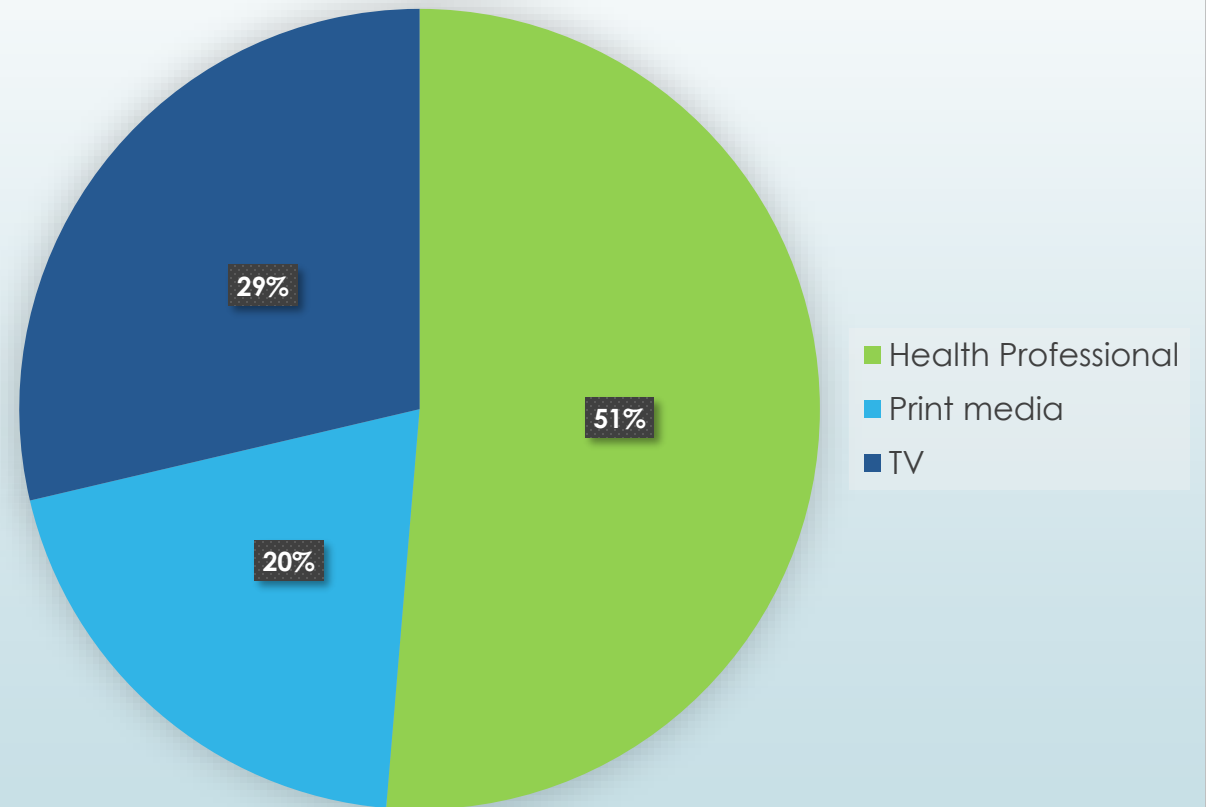


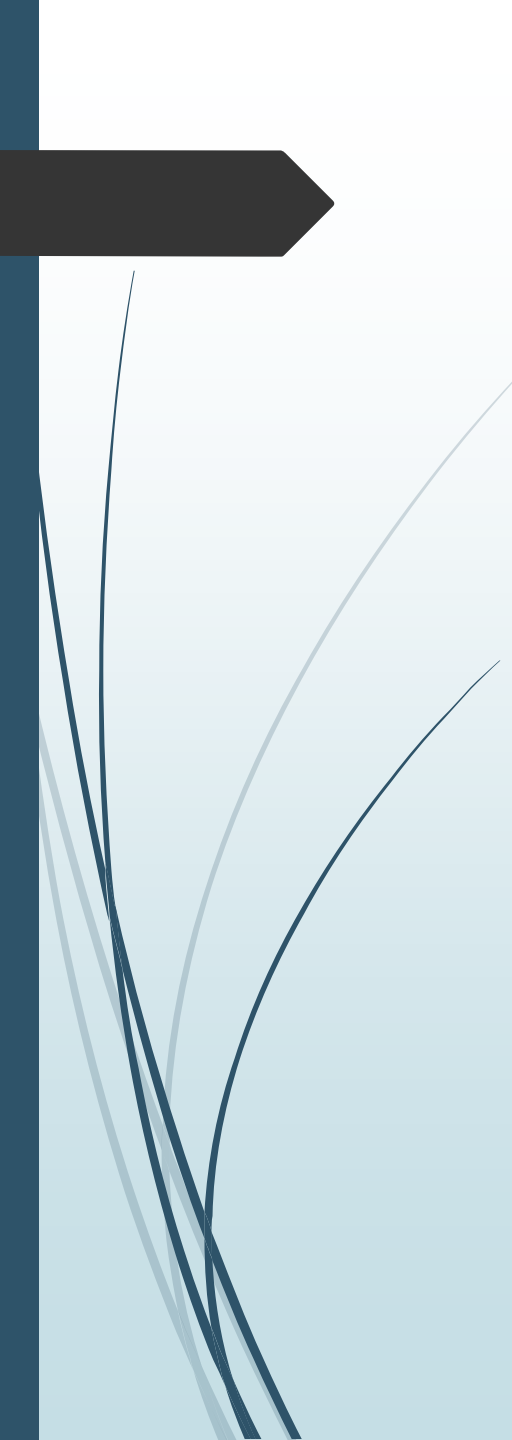
What is the source of information for diabetic patient?

Interpretation

51 % health professional are the source of information for diabetic patient, while 20 % print media and 29 % Tv are the source for information for diabetic patient.

Source of information for diabetic patient



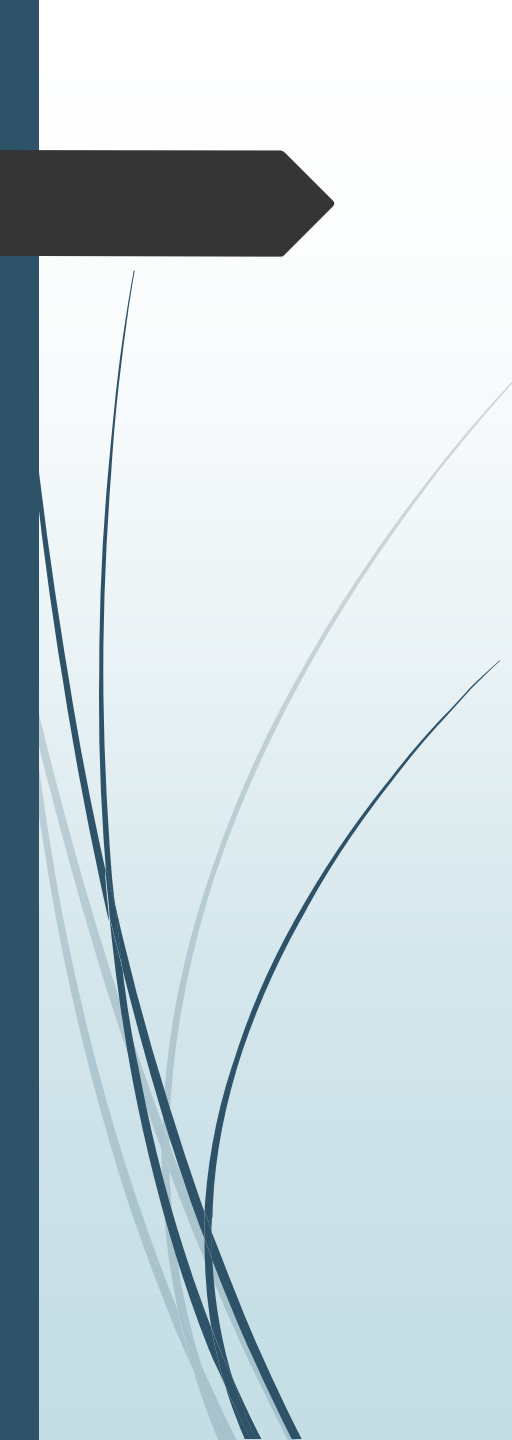


Findings

- Knowledge of symptoms of diabetes in women is less as comparison to men. In addition to this knowledge of normal level of sugar in blood in women is less as comparison to men.
- Women as comparison to men are also less aware about complications associated with diabetes.
- Only 65 % were aware about increasing prevalence of disease.
- Consuming sweets is the major factor causing diabetes.
- 74 % respondents don't go for eye checkup unless it is not required.

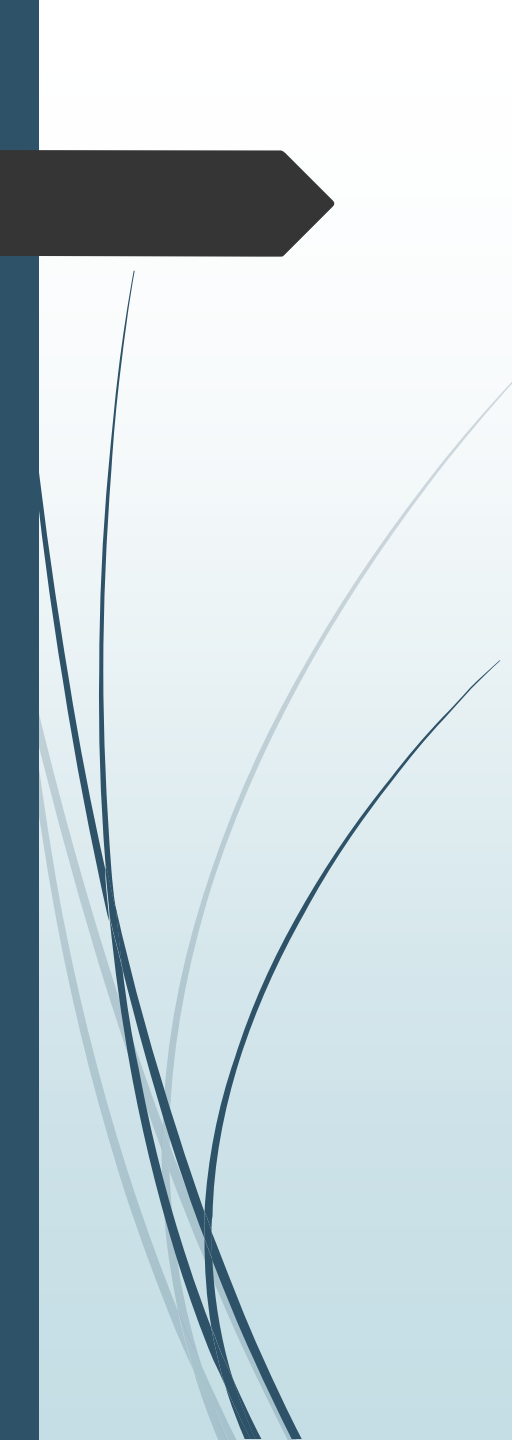
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- Maximum people said that non healing of wound occur from diabetes and less number of people are aware about that diabetes can effect eyes, heart and kidney and cause complications.
 - 54 % respondents said that diabetes is not curable whereas 36 % said it is curable and 10 % don't know about this.
 - 75 % respondents don't do exercise only 25 % respondents do exercise.
 - Only 50 % respondents said that stop smoking, weight reduction, stop alcohol intake are factors important to prevent diabetes.

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- 51 % information patient get from health professional about diabetes.
 - Out of 72 graduated respondents who said diet modification is important only 35 respondents modify their diet and 37 didn't modify their diet. This shows that practice is limited in educated people.



Conclusion

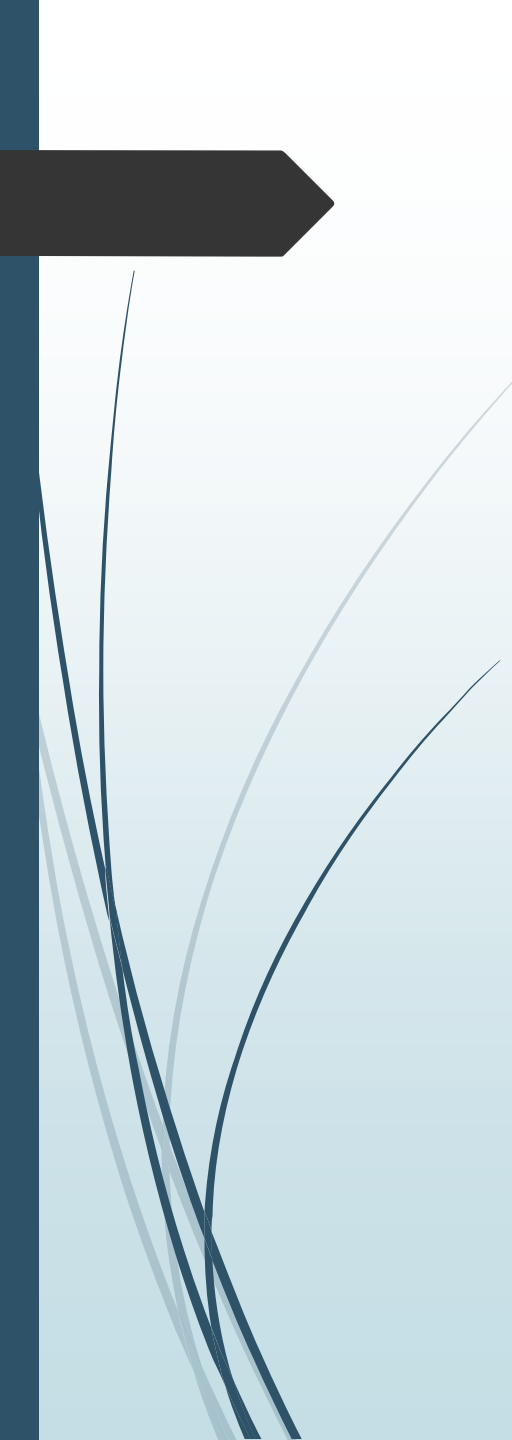
- Knowledge about diabetes is a powerful predictor of the perception of people with diabetes concerning their illness and quality of services they receive. Significant no. of patients are poorly informed about key elements of diabetes care and are not receiving appropriate or significant education about it. Type 2 diabetes is a serious disease, and tight glucose control reduces morbidity and mortality associated with diabetes. However some patients have different health beliefs and perceptions of seriousness. The result of this study show that there is a need for a change in the attitudes of patients.



Suggestions:

- IEC,TV sessions, mass media awareness should be created by developing posters & hoardings.
- Organize open for all diabetes awareness workshops.
- As we have seen that most of the awareness of diabetes in diabetic patients is through Health professionals-but the doctors has a huge OPD workload especially in govt. hospitals ,so doctors can't have enough time on counselling each and every patient.
- Counselling plays an important role so we should plan to appoint a counselor for counselling the diabetic patients on topics like diet & regimen, importance of blood sugar monitoring etc.

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- Multi-speciality camps may be organized for the diabetic patients to rule out any complication arising from Diabetes.
 - Blood sugar monitoring chart may be given to diabetic patients to thoroughly maintain it and to be followed up in each visit.



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- World Health Organization. Use of glycated haemoglobin (HbA1c) in diagnosis of diabetes mellitus: abbreviated report of a WHO consultation. Geneva: World Health Organization; 2011.
- Cho NH, Shaw JE, Karuranga S, Huang Y, da Rocha Fernandes JD, Ohlrogge AW, Malanda B. IDF Diabetes Atlas: Global estimates of diabetes prevalence for 2017 and projections for 2045. Diabetes research and clinical practice. 2018 Apr 1;138:271-81.
- Heisler M, Pietee JD, Spencer M, Kieffer E, Vijan S. The relationship between knowledge of recent HbA1c values and diabetes care understanding and self-management. Diabetes Care:2005; 28:816-22[PubMed]