New Larnaca Hospital Diabetes Clinic

## 2016

Demographic characteristics

What is Diabetes?

1 When pancreas doesn't produce insulin (Type 1)

2 When pancreas doesn't produce enough insulin or the insulin cannot be processed (Type 2)

Diabetic Population: Age & sex distribution

Age groups	Males	Females	Total	% of total
18-25	9	6	15	**5%**
26-50	23	23	46	**15%**
51-64	50	36	86	**27%**
65-80	78	64	142	**45%**
80+	18	7	25	**8%**
Total	**178**	**136**	**314**	**100%**

Age and sex distribution of the diabetic population, 2016
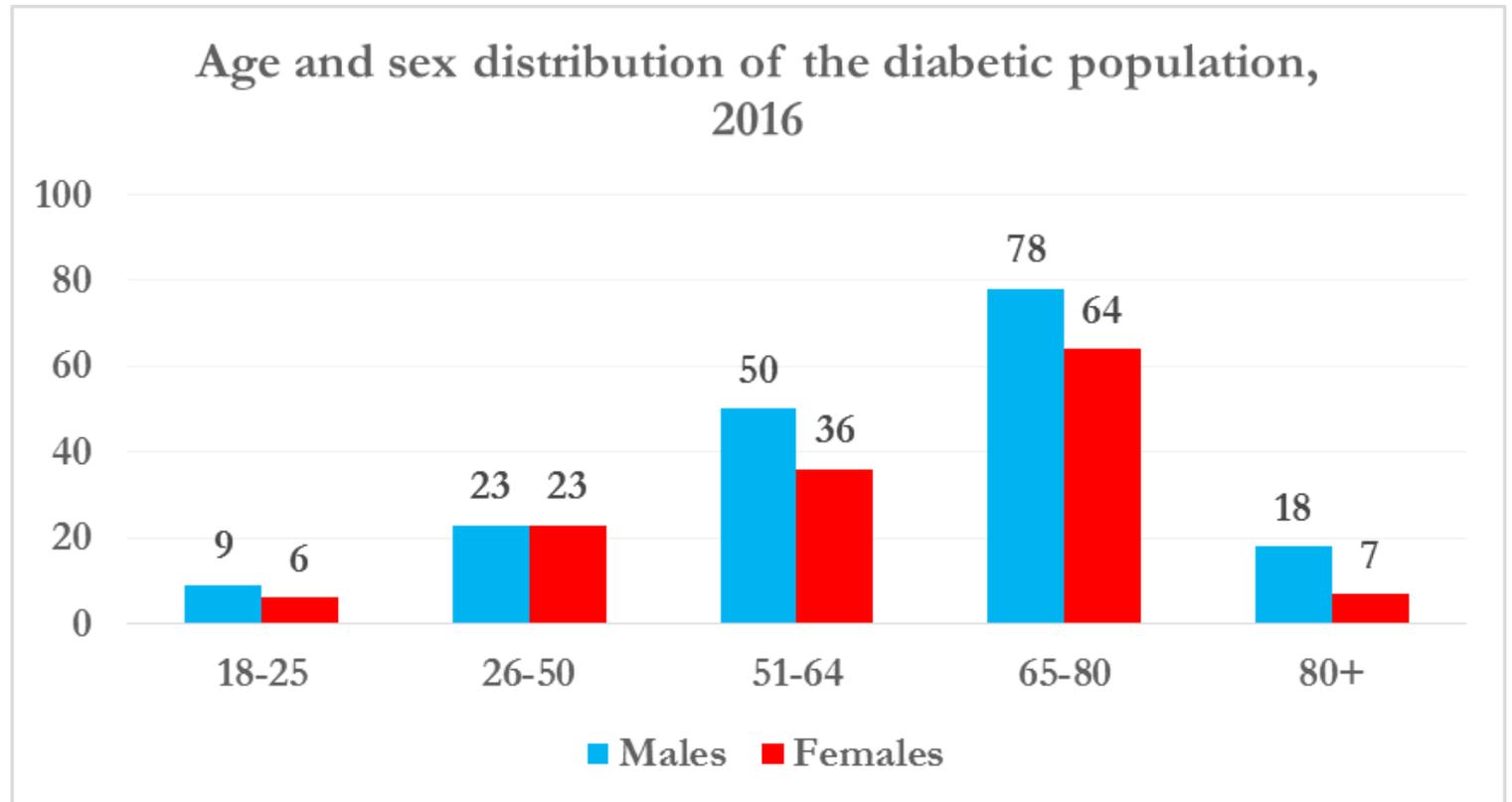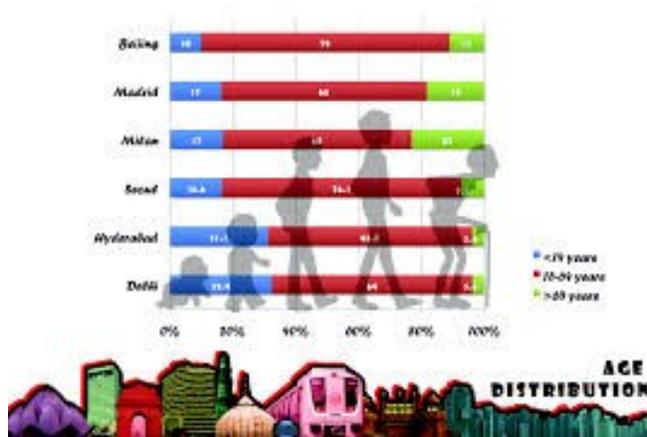
Diabetic Population: Age & sex distribution

Sex Distribution, 2016

- Females 136 43%
- Males 178 57%

Legend: Males, Females

Age group Distribution

- 18-25: 15 5%
- 26-50: 46 15%
- 51-64: 86 27%
- 65-80: 142 45%
- 80+: 25 8%
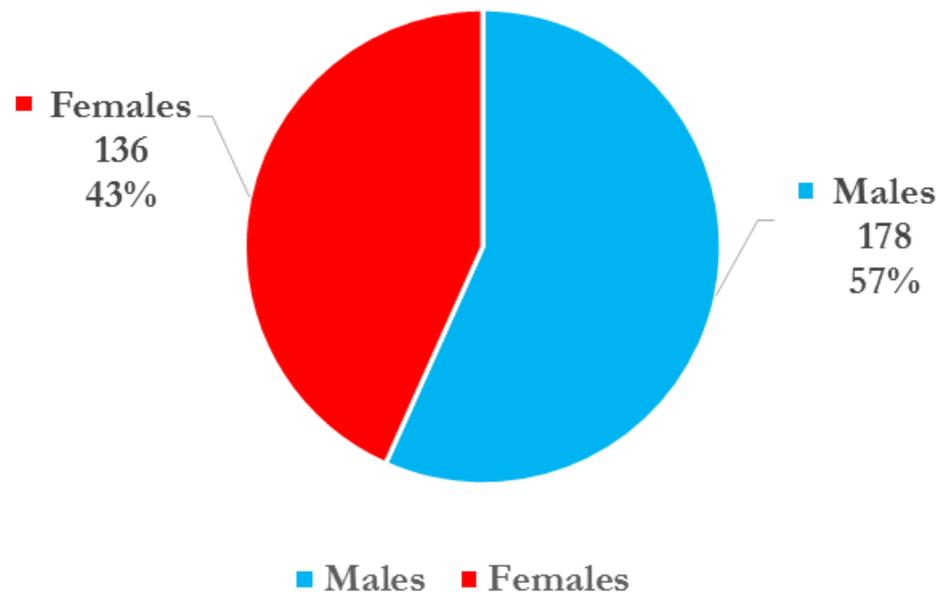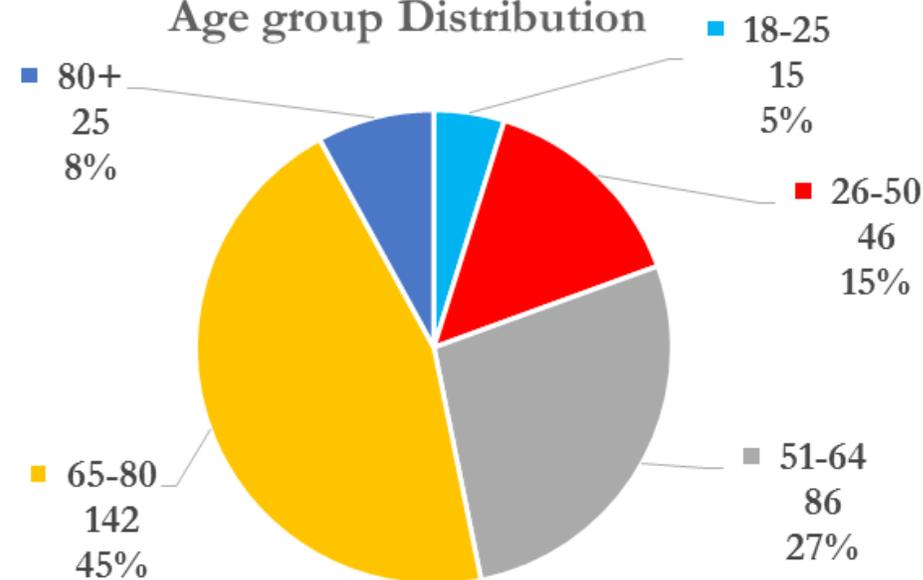
Type of diabetes, by sex

Type of diabetes	Males	Females	Total
Type 1	29	24	53
Type 2	147	112	259
Other	2		2
Total	**178**	**136**	**314**
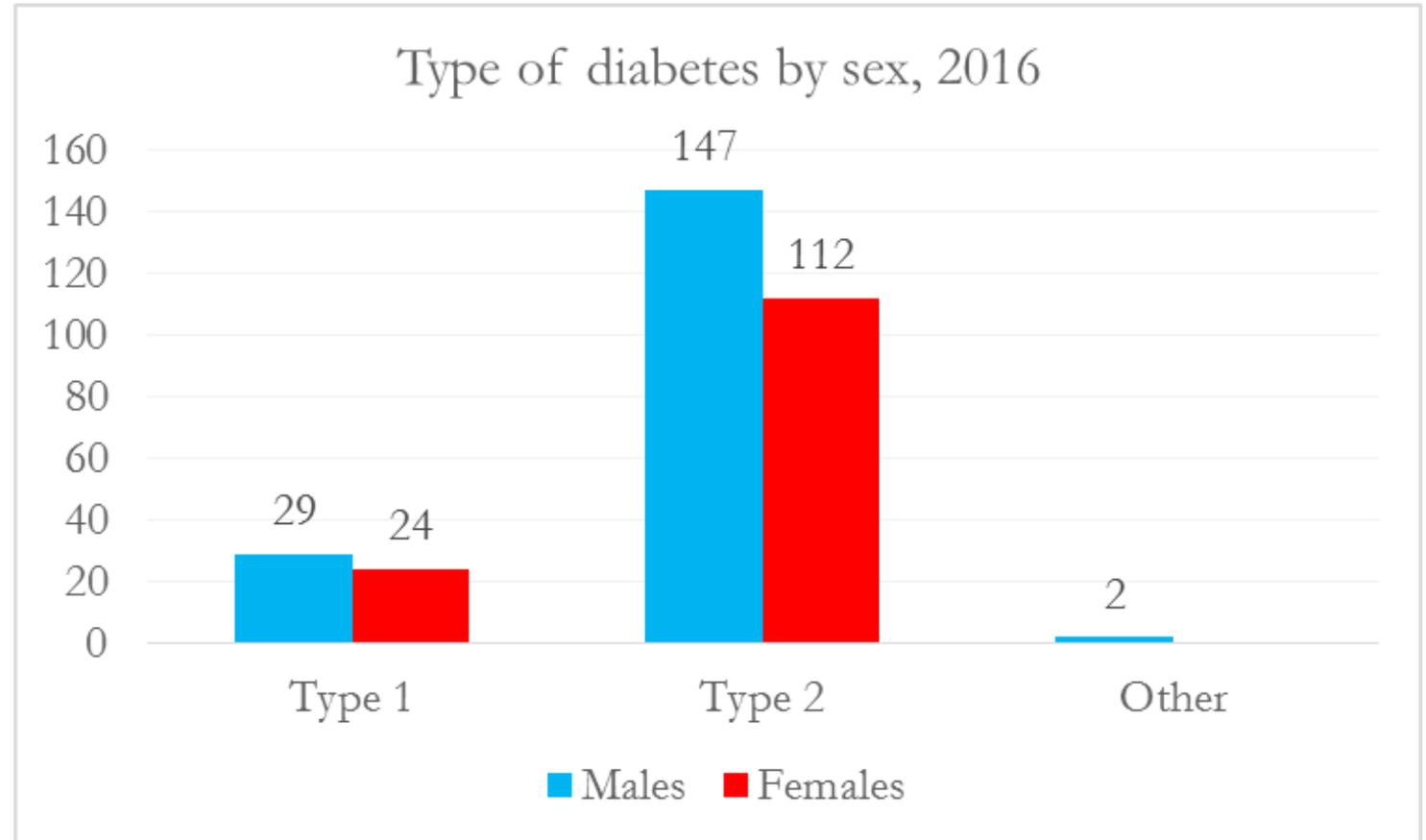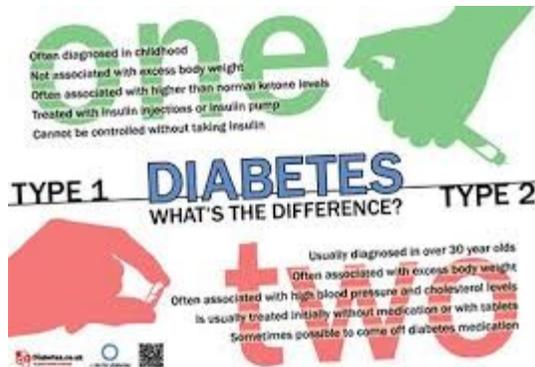
Distribution of age group by type of diabetes

| Age group	Type 1	Type 2	Other	Total
18-25	15			15
26-50	31	15		46
51-64	6	79	1	86
65-80	1	140	1	142
80+		25		25
Total	**53**	**259**	**2**	**314**

Distribution of age group by type of diabetes
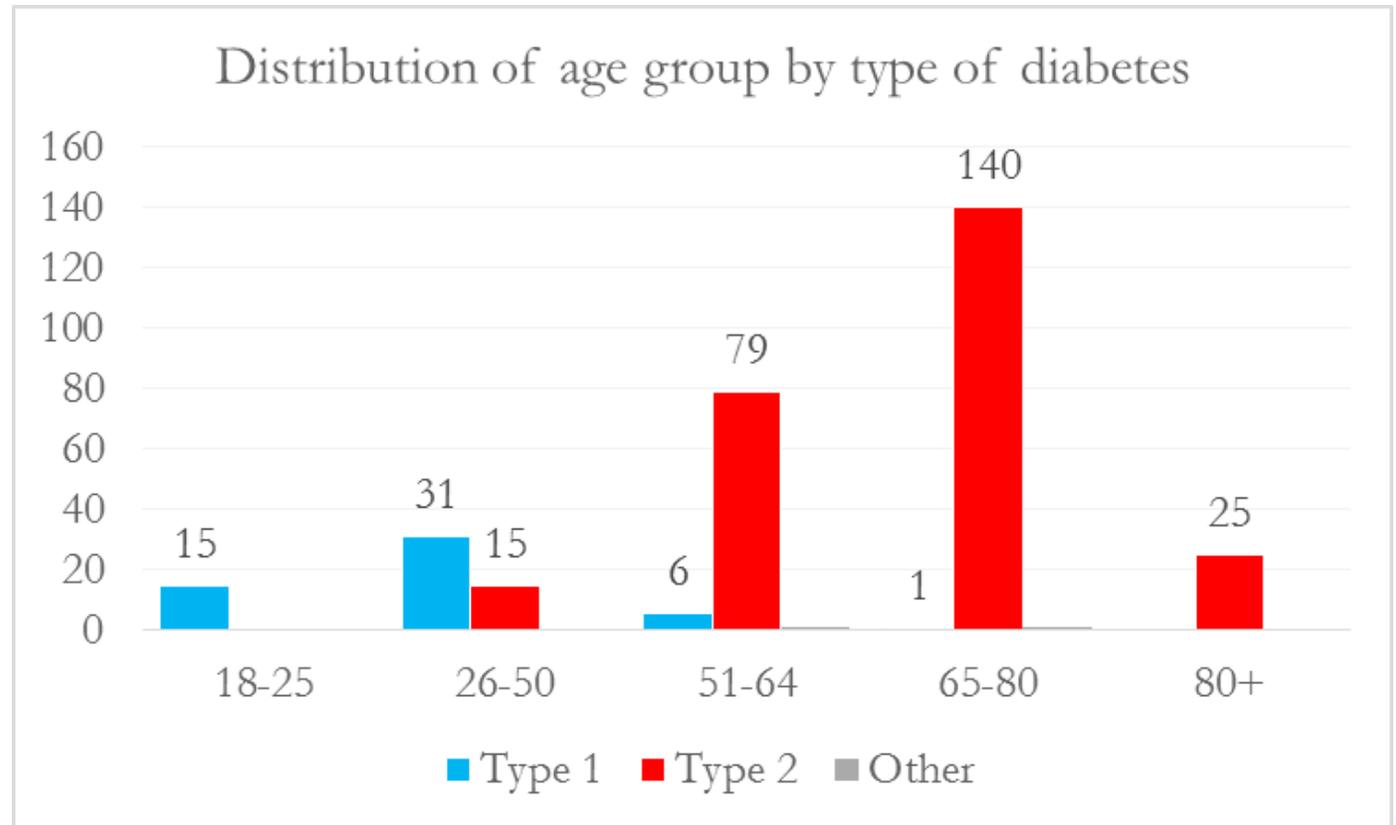
Duration of diabetes by type of diabetes

Duration of diabetes	Type 1	Type 2	Other	Total
0-10	16	78		94
11-25	22	132	2	156
25+	15	49		64
Total	**53**	**259**	**2**	**314**

Duration of diabetes by type of diabetes, 2016

Type 1: Duration of diabetes

Type 2: Duration of diabetes

Risk Factors

TYPE 2 DIABETES RISK FACTORS

Diabetes: Risk Factors and Prevention

HbA₁c as indicator of Diabetes Control
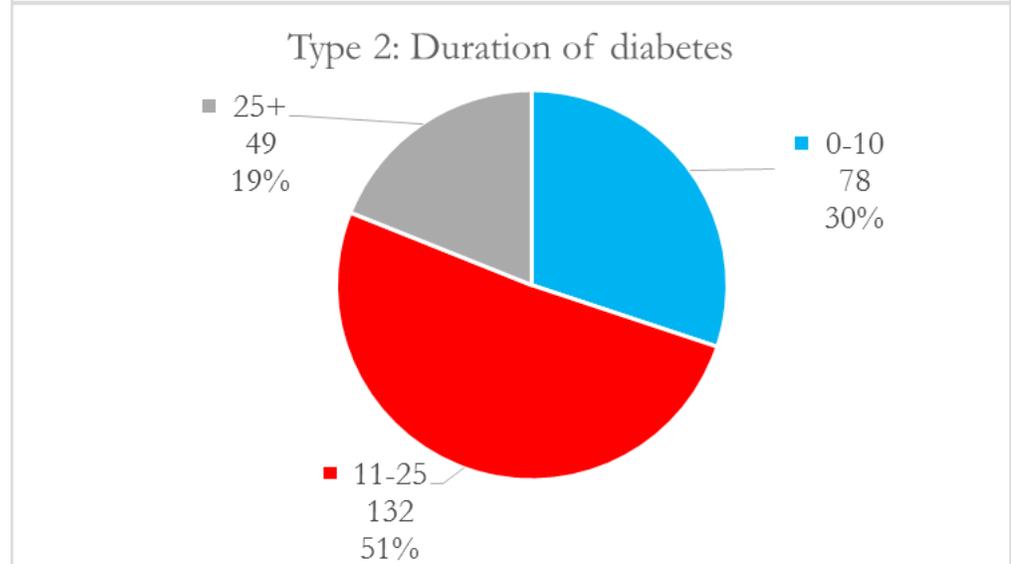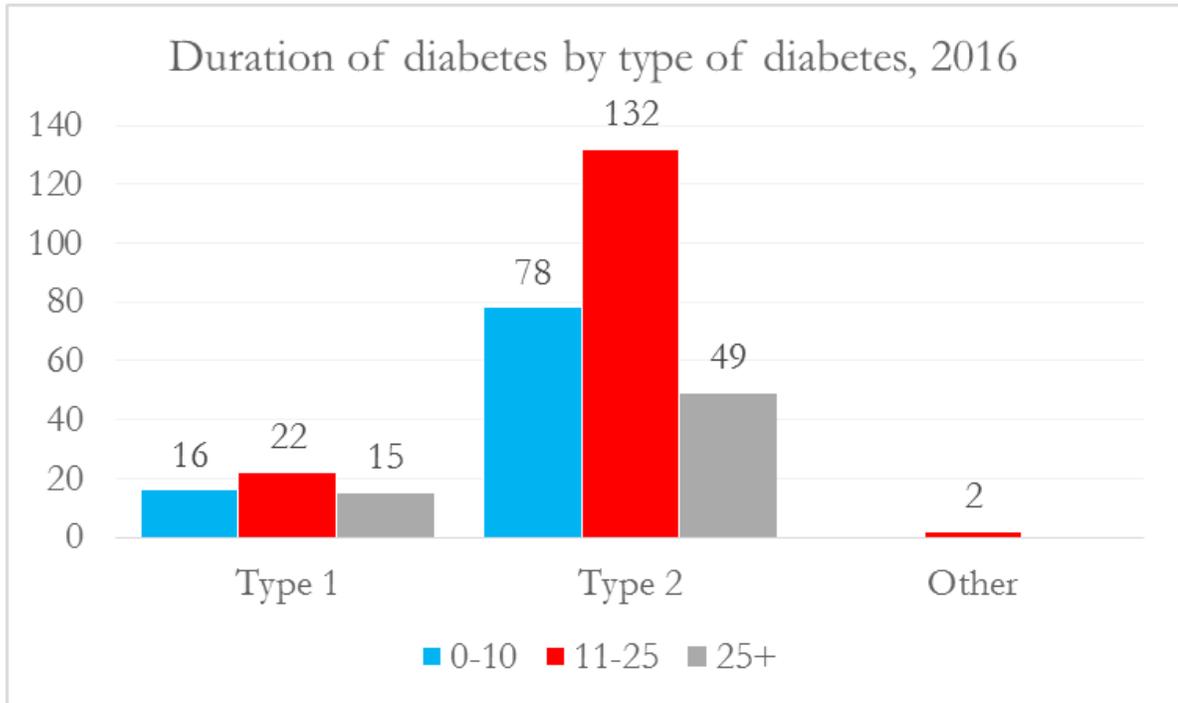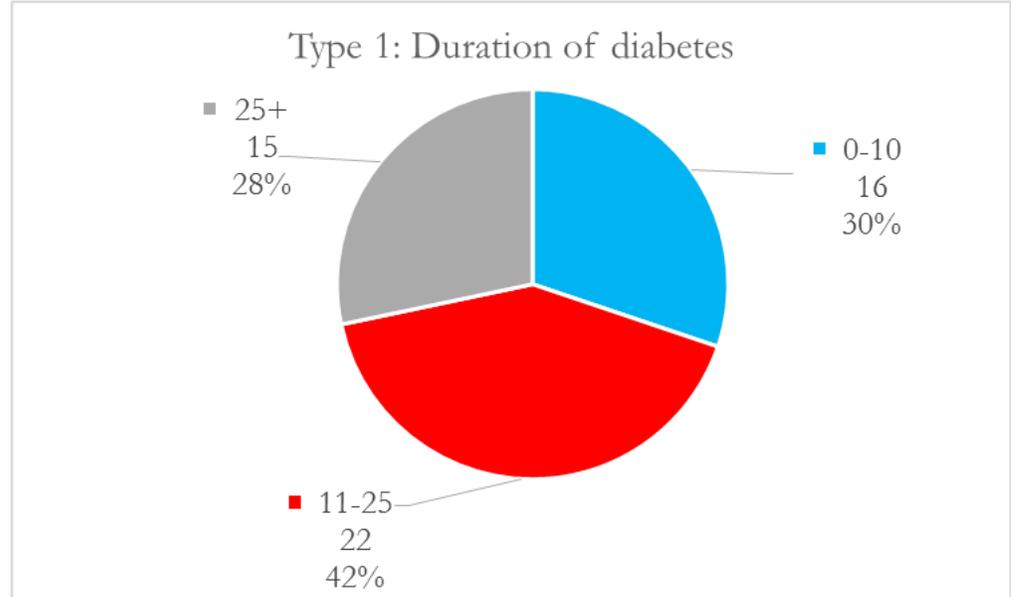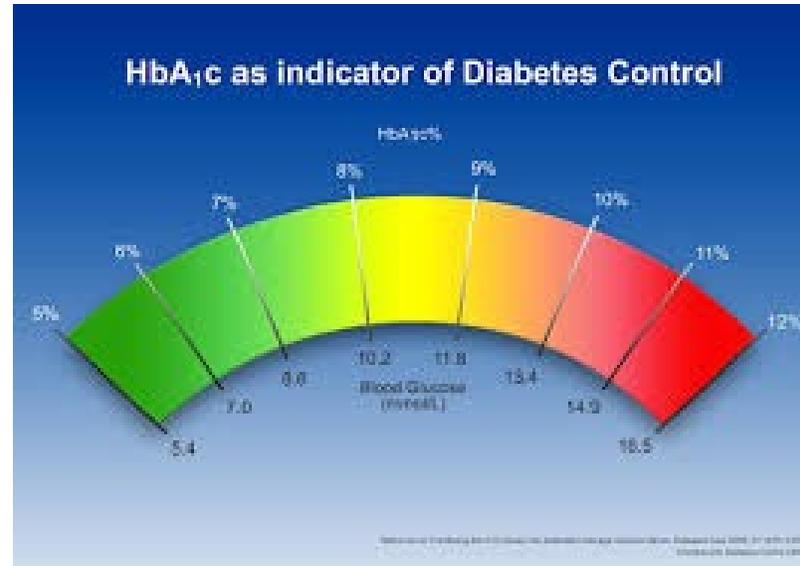
Total Cholesterol (mg/dL)

Total Cholesterol	Total number of patients	%
<100	13	4%
100-200	236	75%
>200	65	21%
Total	**314**	**100%**
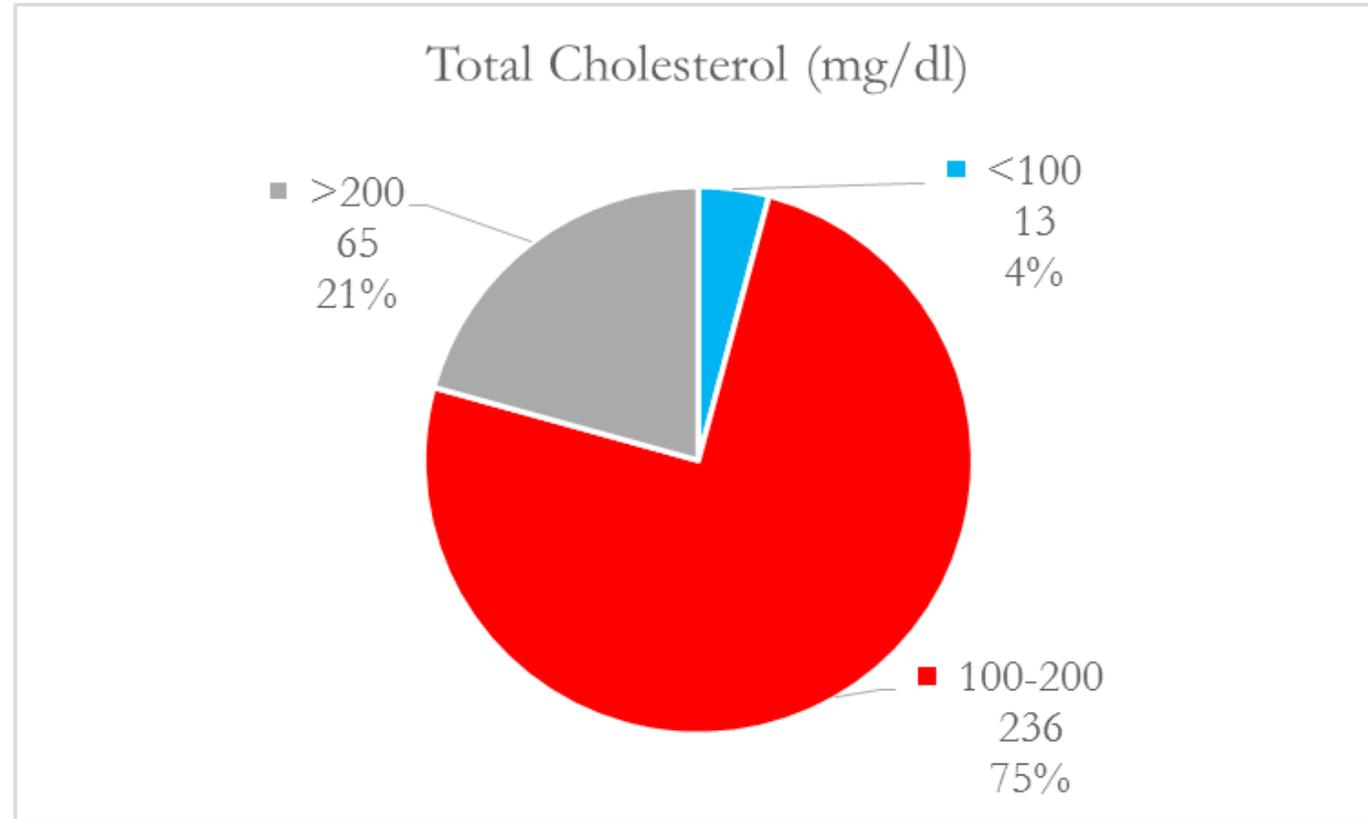
HDL-Cholesterol (last episode in 12 months)

Males

HDL-Cholesterol	Males	%
<40	76	**43%**
>=40	102	**57%**
Total	**178**	**100%**

Females

HDL-Cholesterol	Females	%
<50	69	**51%**
>=50	67	**49%**
Total	**136**	**100%**

HDL-Cholesterol (last episode in 12 months), males

- <40
  76
  43%
- >=40
  102
  57%
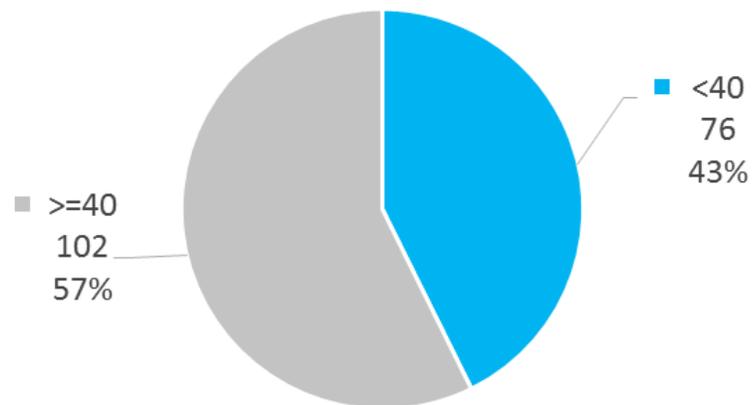
HDL-Cholesterol (last episode in 12 months), females

- >=50
  67
  49%
- <50
  69
  51%
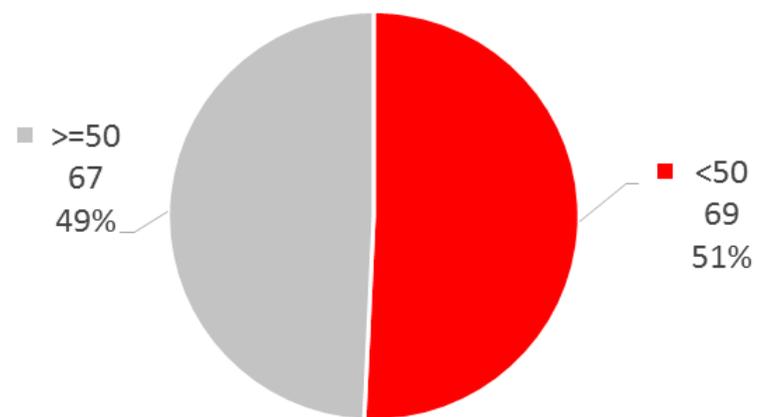
LDL-Cholesterol (last episode in 12 months)

LDL-Cholesterol (mg/dL)	Total number of patients	%
<100	151	48%
>=100	154	49%
Not Stated	9	3%
Total	314	100%

LDL-Cholesterol (last episode in 12 months)

- Not Stated 9 3%
- >=100 154 49%
- <100 151 48%
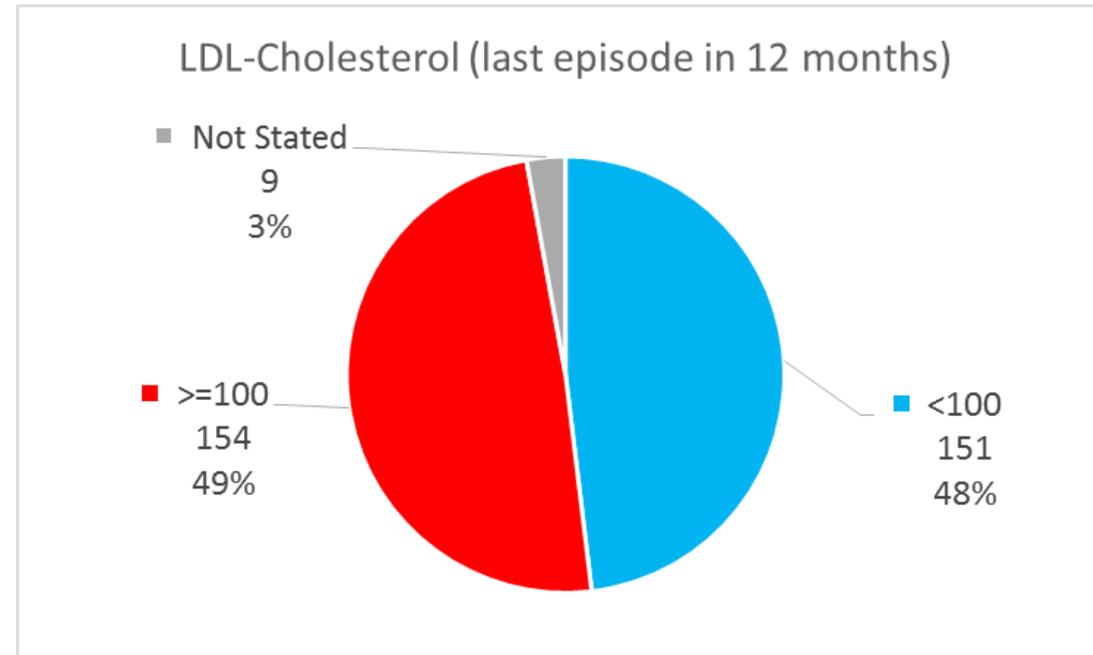
Triglycerides (mg/dL) (last episode in 12 months)

Triglycerides (mg/dL)	Total number of patients	%
<150	198	63%
>=150	107	34%
Not Stated	9	3%
Total	314	100%

Triglycerides (mg/dl) (last episode in 12 months)

- Not Stated 9 3%
- >=150 107 34%
- <150 198 63%
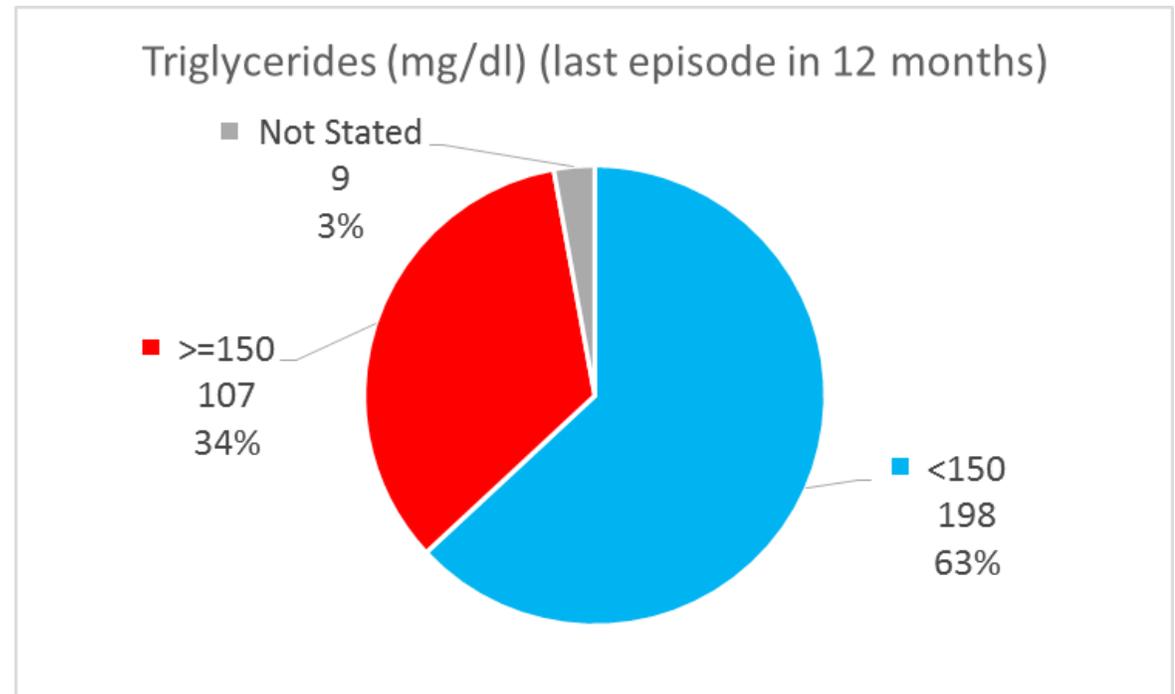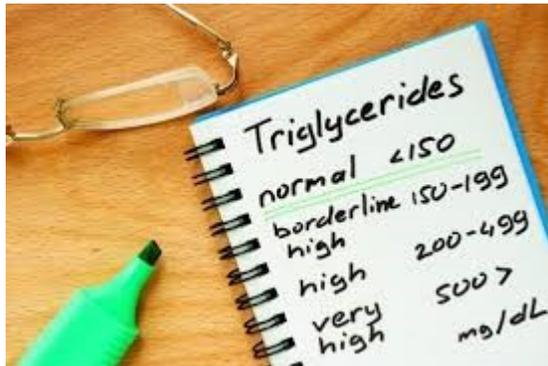
HbA1c, by sex
(last episode in 12 months)

HbA1c	Males	Females	Total	% of total
<=7%	124	99	223	**71%**
7,1%-8%	37	22	59	**19%**
8,1%-9%	10	10	20	**6%**
>9%	4	3	7	**2%**
None	3	2	5	**2%**
Total	**178**	**136**	**314**	**100%**
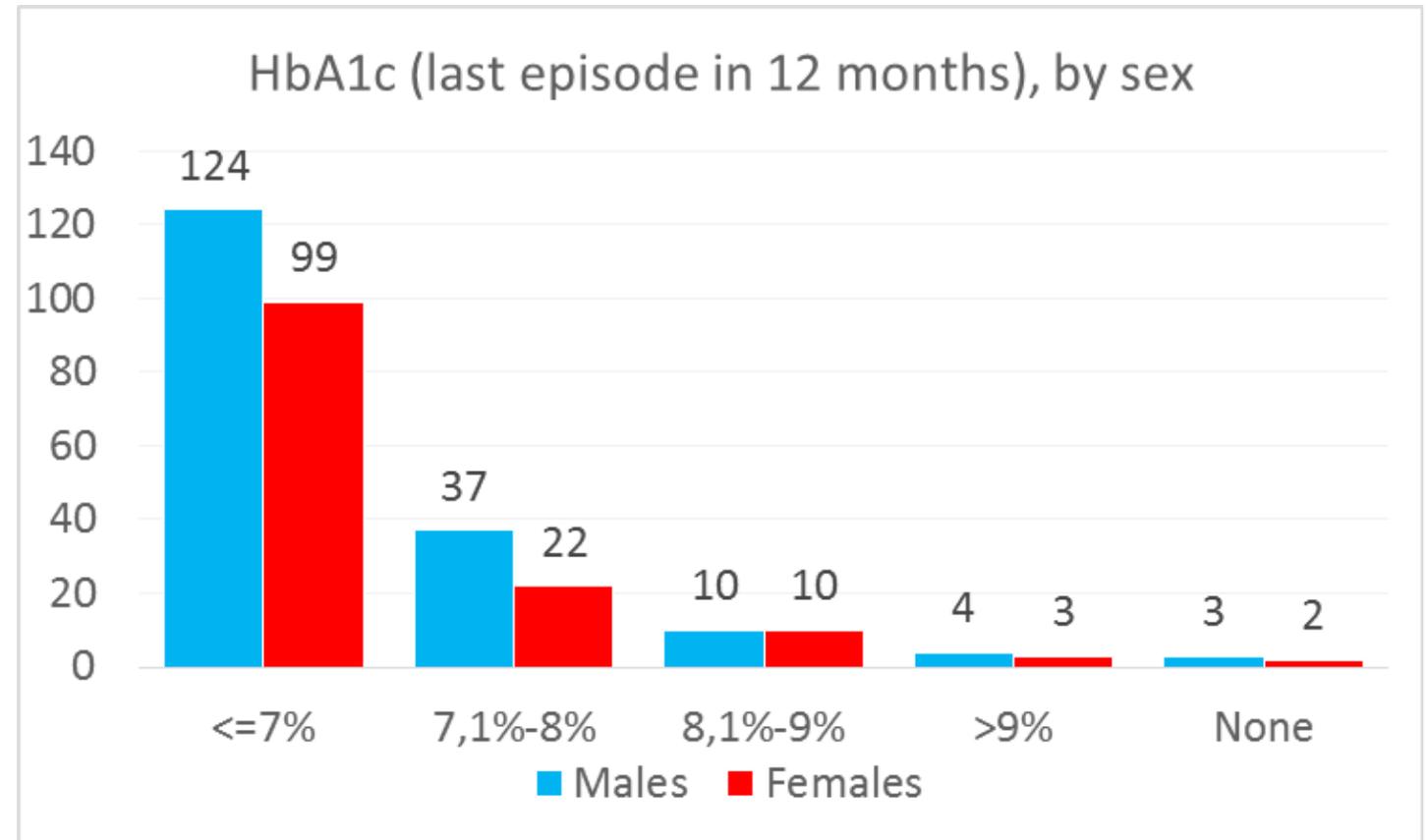
HbA1c, comparison for the period 2011-2016

HbA1c	2011	2012	2013	2014	2015	2016
<=7%	157 (**51%**)	214 (**62%**)	213 (**61%**)	192 (**55%**)	149 (**44%**)	223 (**71%**)
7,1%-8%	72 (**23%**)	83 (**24%**)	96 (**28%**)	94 (**27%**)	115 (**34%**)	59 (**19%**)
8,1%-9%	51 (**17%**)	31 (**9%**)	30 (**9%**)	40 (**12%**)	48 (**14%**)	20 (**6%**)
>9%	28 (**9%**)	15 (**4%**)	9 (**3%**)	18 (**5%**)	23 (**7%**)	7 (**2%**)
Not Stated	0 (**0%**)	0 (**0%**)	0 (**0%**)	3 (**1%**)	6 (**2%**)	5 (**2%**)
Total	**308 (100%)**	**343 (100%)**	**348 (100%)**	**347 (100%)**	**341 (100%)**	**314 (100%)**

Red Blood Cell   Sugar

Low HbA1c   High HbA1c

HbA1c test

5.6%   6.5%

Pre-diabetes

Normal   Diabetes

HbA1c 2011-2016, comparison for the period 2011-2016

<=7%   7,1%-8%   8,1%-9%   >9%   Not Stated
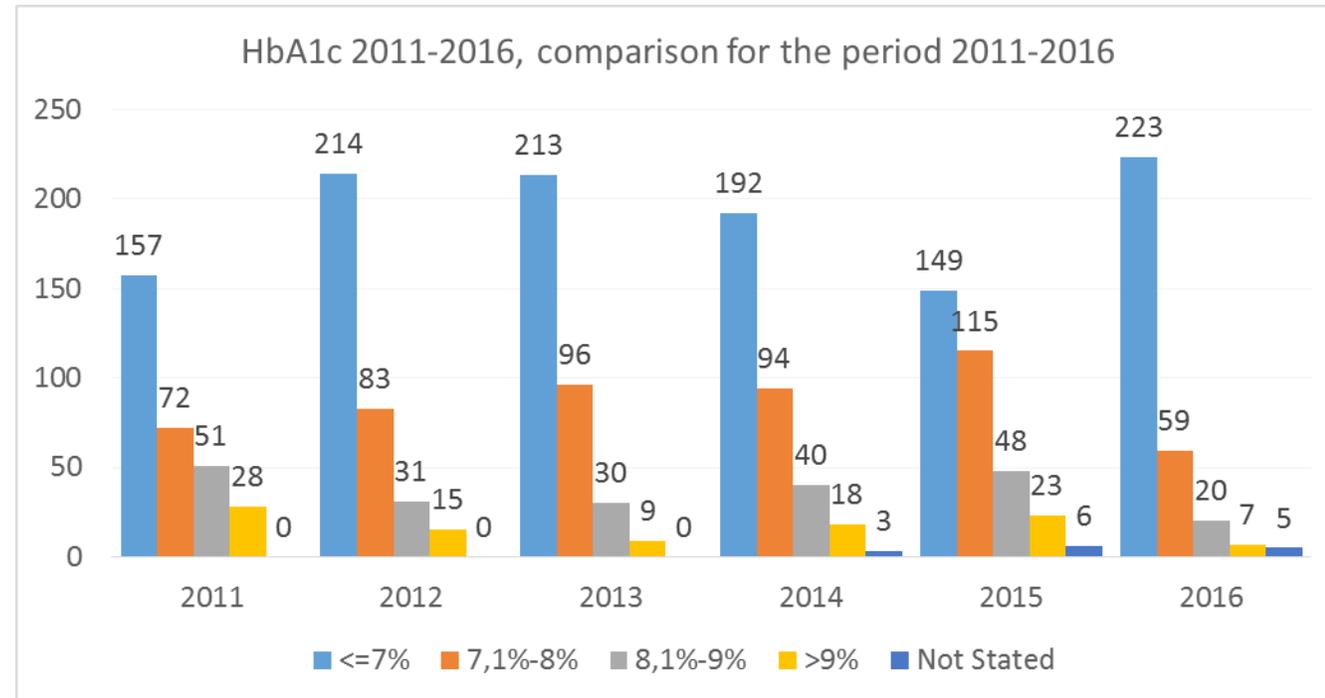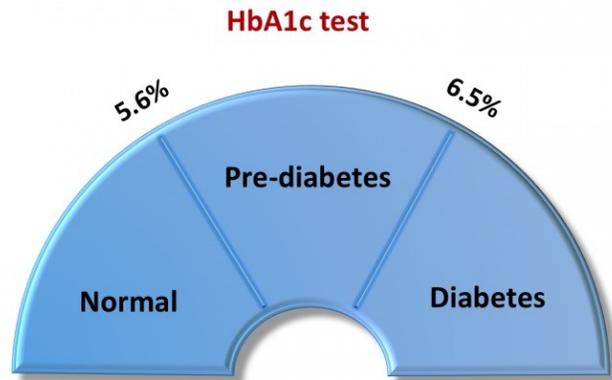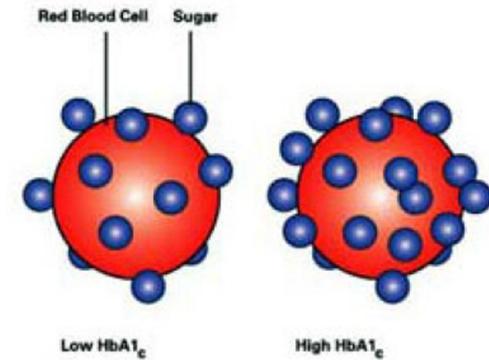
HbA1c, by sex (last episode in 12 months) (Diabetes Type 1)

HbA1c	Males	Females	Total	% of total
<=7%	18	13	31	**58%**
7,1%-8%	7	7	14	**26%**
8,1%-9%	3	1	4	**8%**
>9%	1	2	3	**6%**
None		1	1	**2%**
Total	**29**	**24**	**53**	**100%**

REDUCES RISK BY...

Every **1%** Reduction in HbA1c

DIABETES RELATED DEATHS	21%
MYOCARDIAL INFARCTIONS	14%
MICROVASCULAR COMPLICATIONS	37%
AMPUTATIONS OR DEATHS	43%

HbA1c (last episode in 12 months), by sex (Diabetes Type 1)
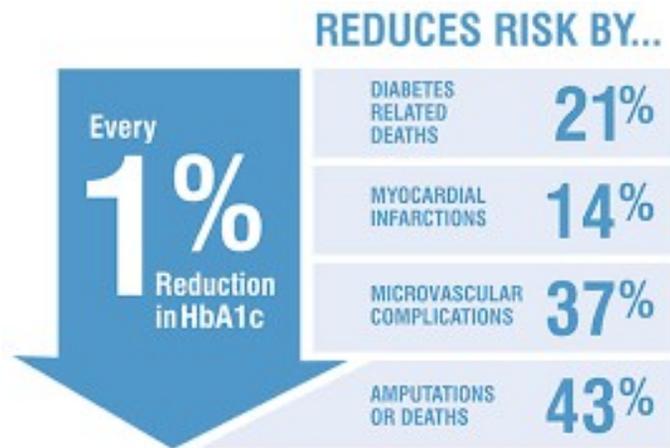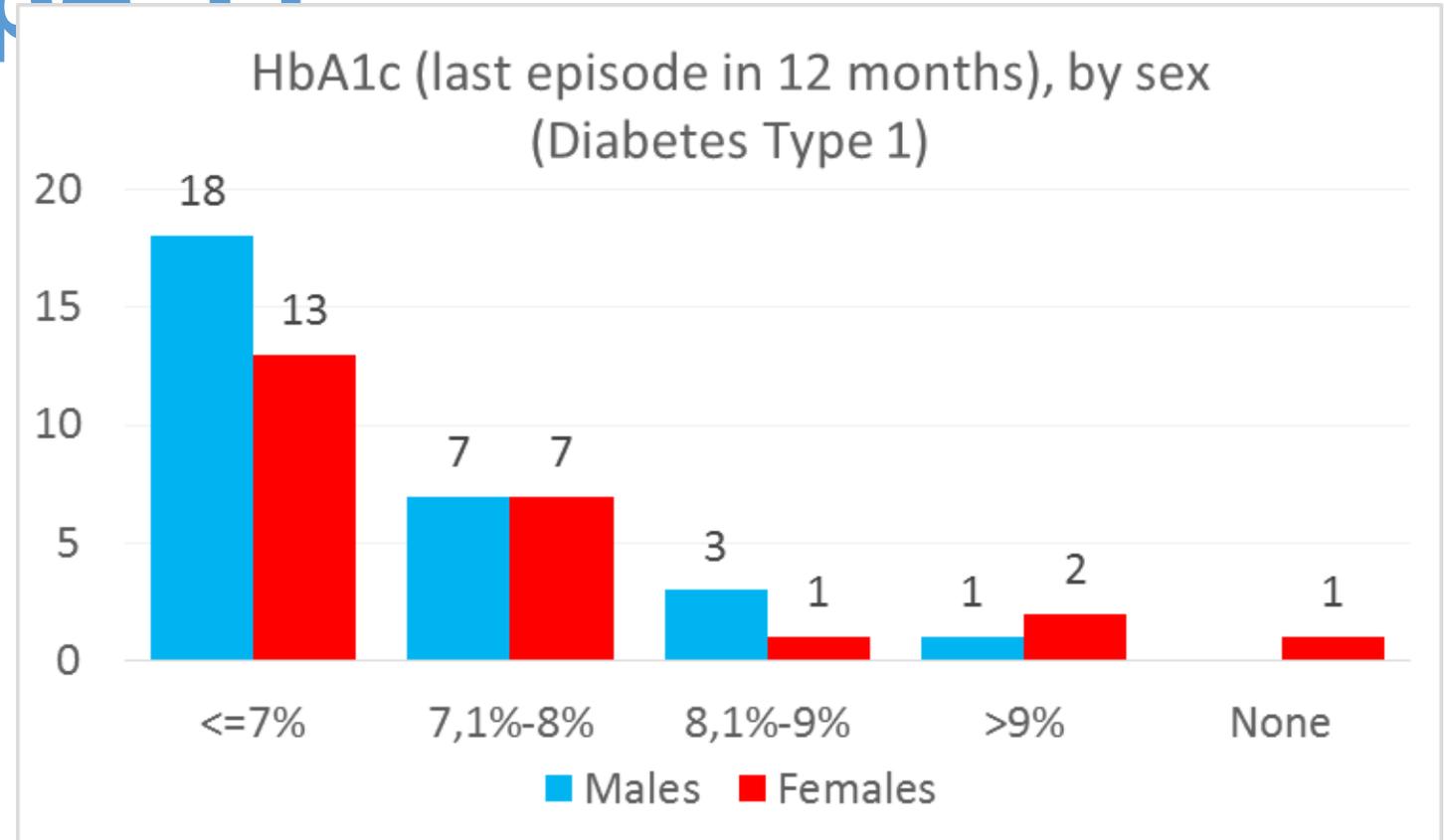
HbA1c, by sex (last episode in 12 months) (Diabetes Type 2)

HbA1c	Males	Females	Total	% of total
<=7%	104	86	190	73%
7,1%-8%	30	15	45	17%
8,1%-9%	7	9	16	6%
>9%	3	1	4	2%
None	3	1	4	2%
Total	147	112	259	100%
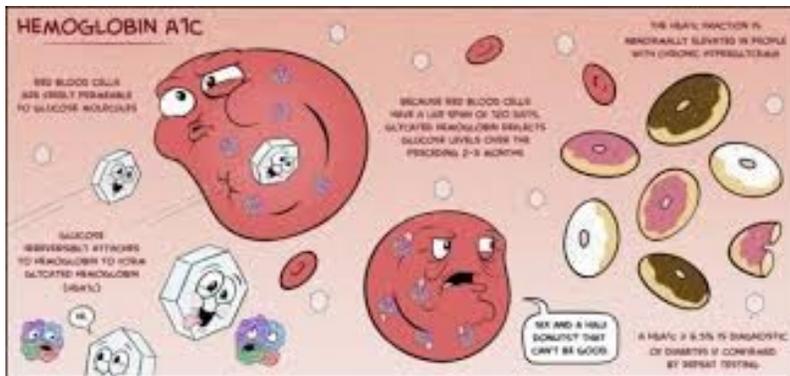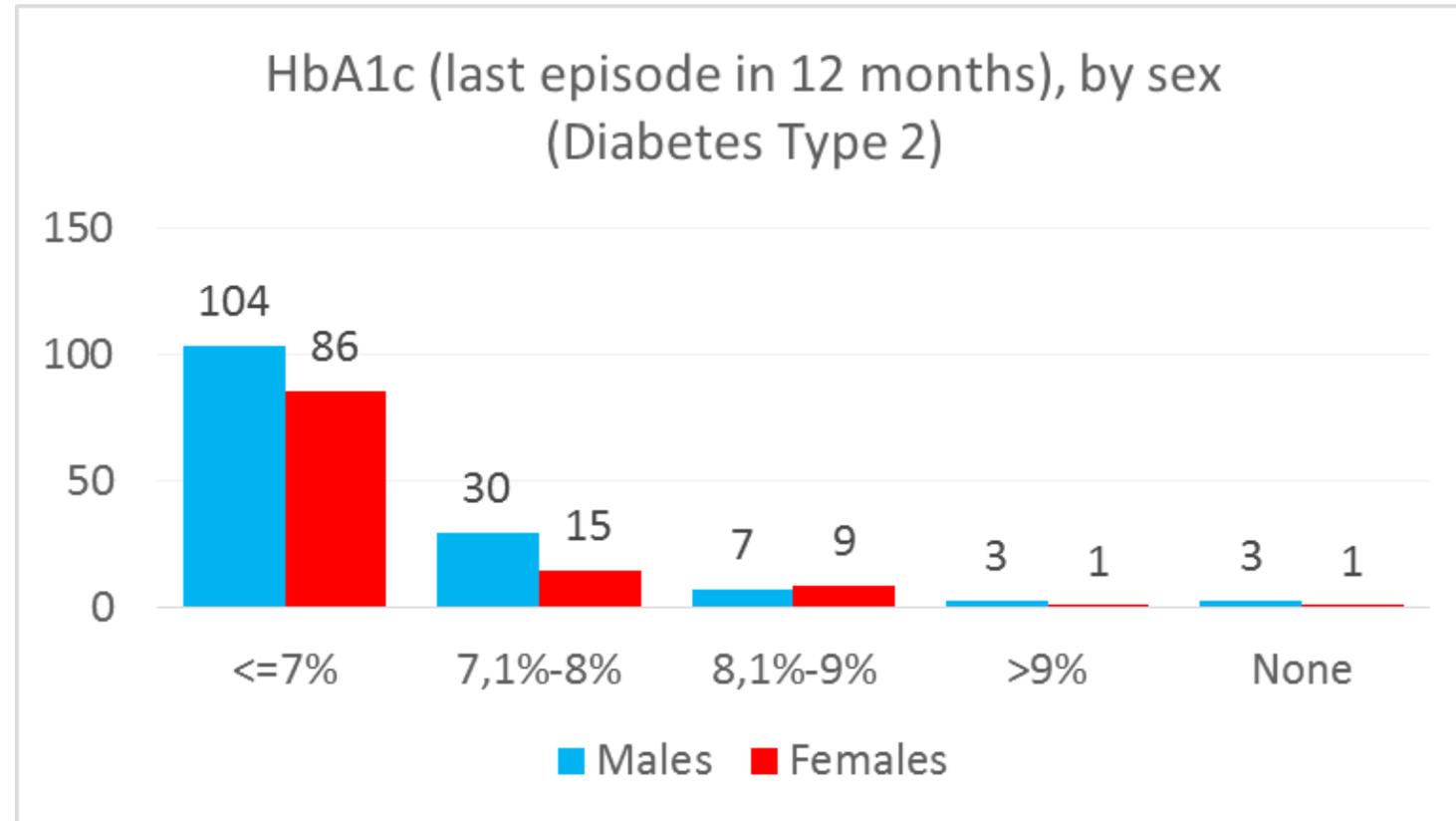
Microalbumin

Microalbumin	Total number of patients	%
No MA test recorded	50	**16%**
MA test Normal	186	**59%**
MA test Abnormal	78	**25%**
Total	**314**	**100%**

INFLAMMATORY STATES
(decreased nitric oxide responsiveness; increased oxidant stress)

Metabolic Syndrome | Nonalcoholic Steatohepatitis | Infections | Rheumatologic Diseases

Hypertension (decreased nitric oxide response) | Hyperlipidemia | Obesity | Impaired Glucose Tolerance | Bacterial and Viral | Rheumatoid Arthritis | Collagen Vascular Diseases | Gout

Microalbuminuria

Microalbumin

- MA test Abnormal 78 25%
- No MA test recorded 50 16%
- MA test Normal 186 59%

Health System Processes


Normal

Diabetic Retinopathy
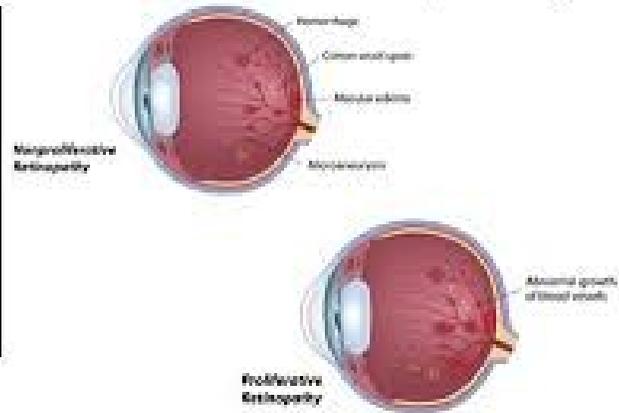
Foot Screen Test Sites

If you have a ⊖ in any circle, discuss it with your diabetes care team as soon as possible.

Foot examination


- Diabetes population (314 patients in 2016): all had their feet examined

Diabetic Foot Examination

- **D** deformity
- **I** infection
- **A** atrophic nails
- **B** breakdown of skin
- **E** oedema
- **T** temperature
- **I** ischemia
- **C** callosities
- **S** skin colour
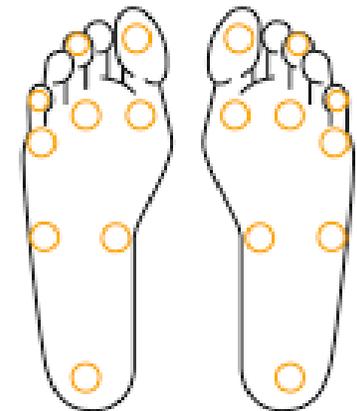
Active foot ulcer (Foot examination = Yes)

Foot ulcer	N
Yes	2
No	312
Total	**314**
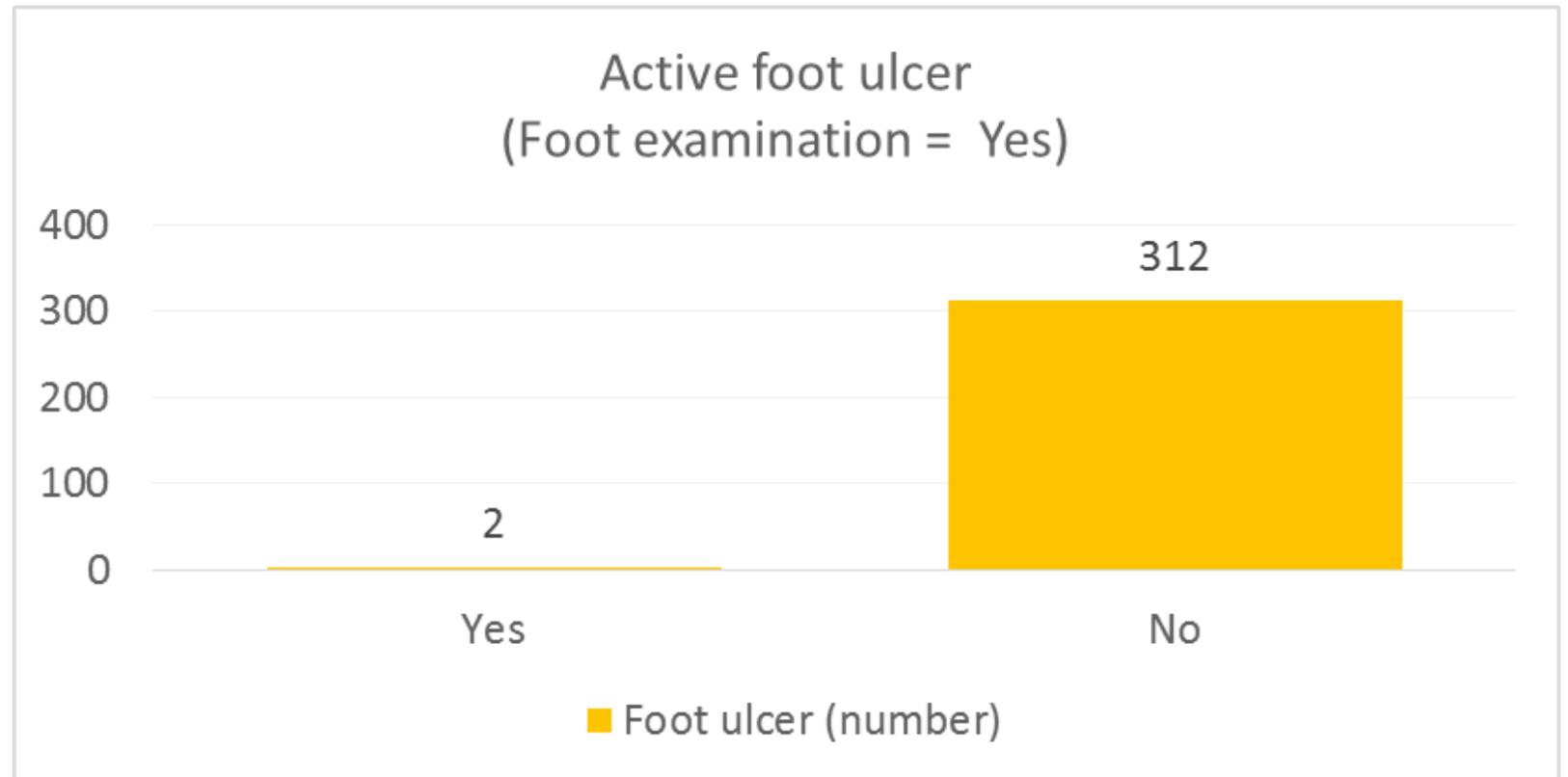
Retinal Examination

Retinal Examination	Total number of patients	%
Retinal Examination	221	**70%**
No Retinal Examination	51	**16%**
not stated	42	**13%**
Total	314	**100%**
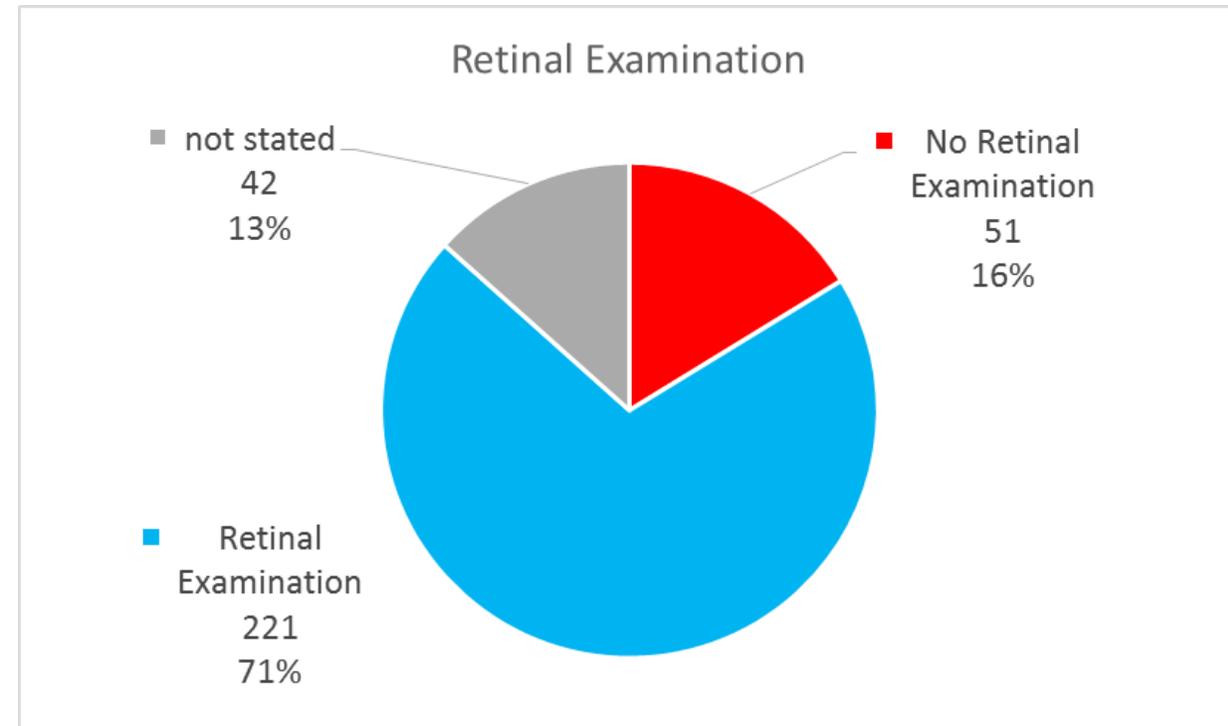
Retinopathy status (Retinal examination = Yes)

Retinopathy status	Total number of patients	%
No diabetic Retinopathy	150	**68%**
Background Retinopathy	26	**12%**
Referable Retinopathy	31	**14%**
not stated	14	**6%**
Total	**221**	**100%**

DIABETIC RETINOPATHY

HEMORRHAGES
ABNORMAL GROWTH OF BLOOD VESSELS
ANEURYSM
"COTTON WOOL" SPOTS
HARD EXUDATES

Retinopathy status
(Retinal examination = Yes)

not stated
14
6%

Referable Retinopathy
31
14%

Background Retinopathy
26
12%

No diabetic Retinopathy
150
68%
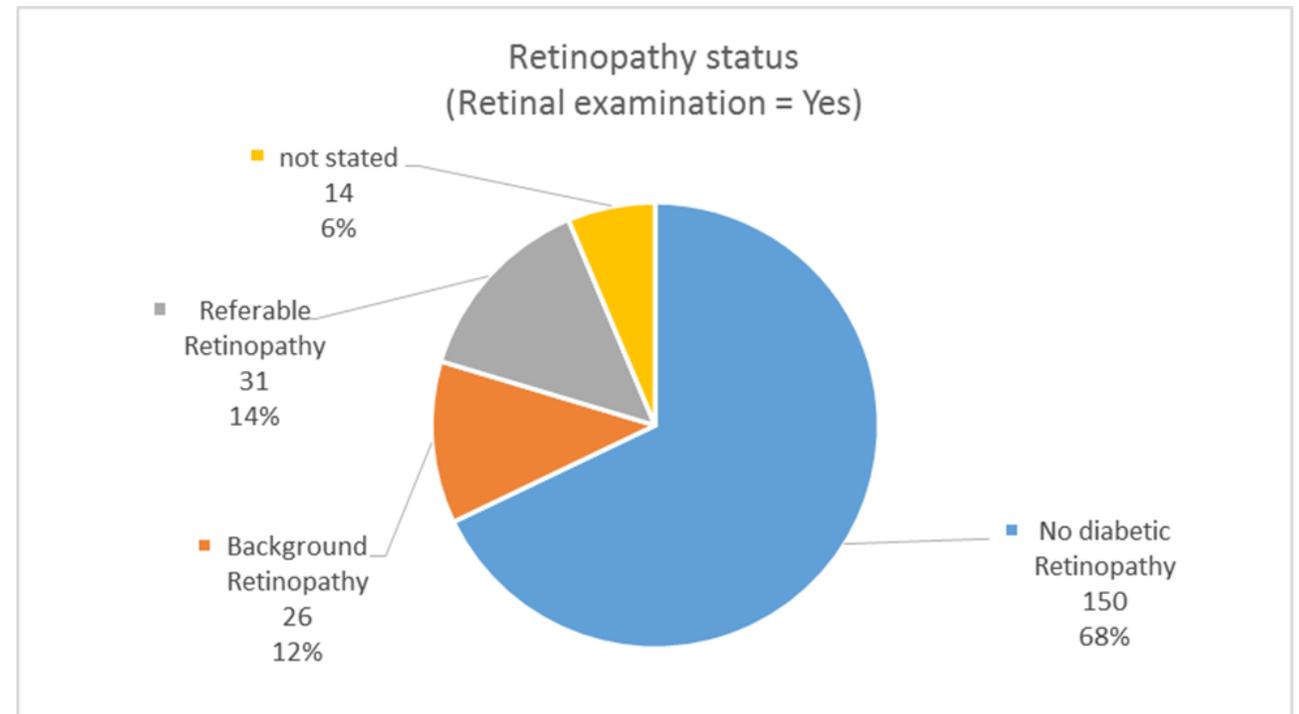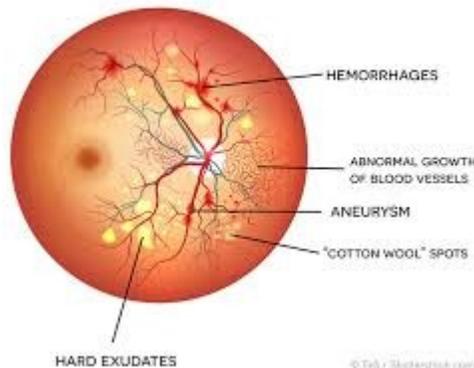
Maculopathy (Retinal examination = Yes)

Maculopathy	Total number of patients	%
Maculopathy	20	9%
No maculopathy	186	84%
not stated	15	7%
Total	221	100%
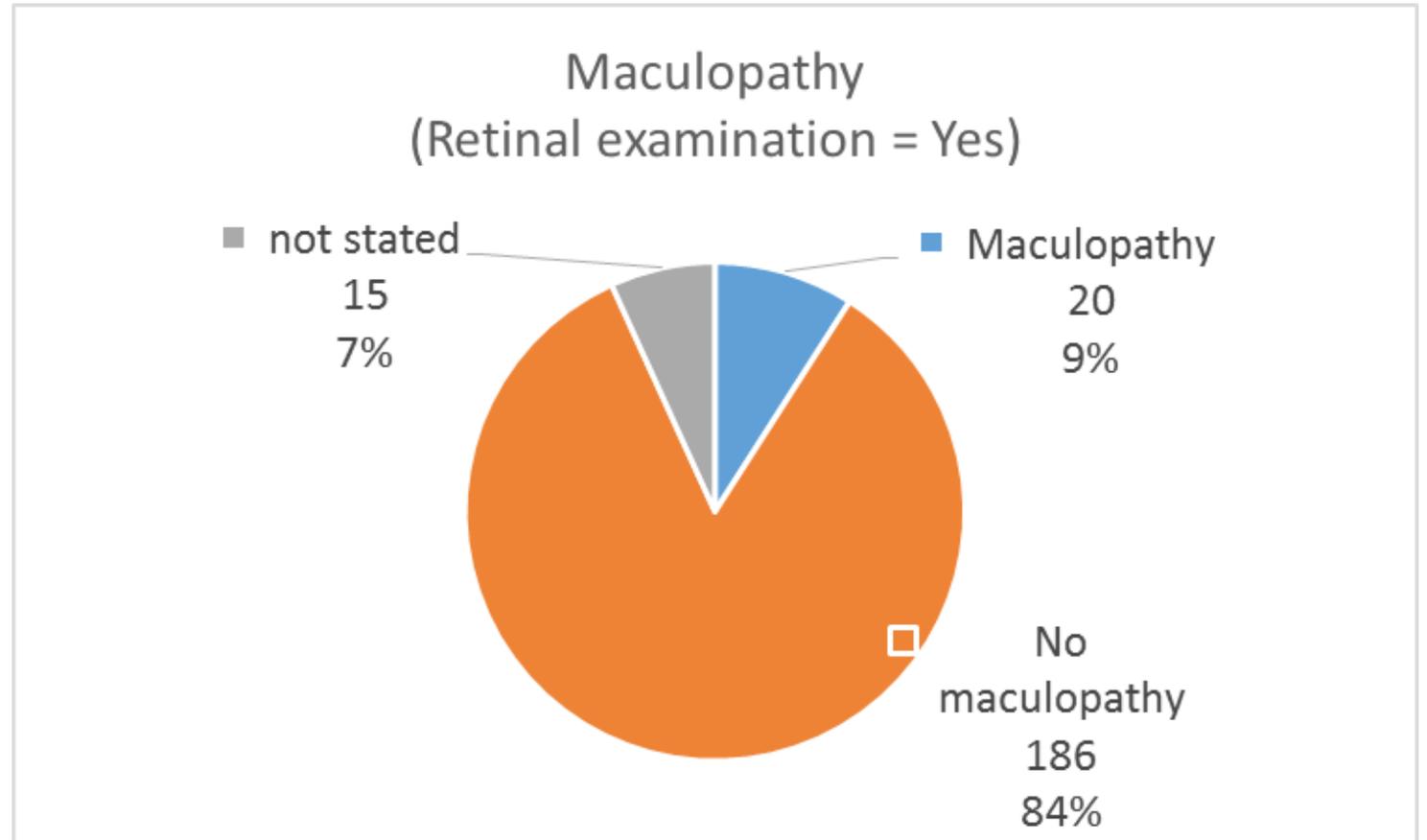
Laser Treatment on eye (Retinal examination = Yes)

Laser Treatment	Total number of patients	%
Yes	20	9%
No	185	84%
not stated	16	7%
Total	**221**	**100%**
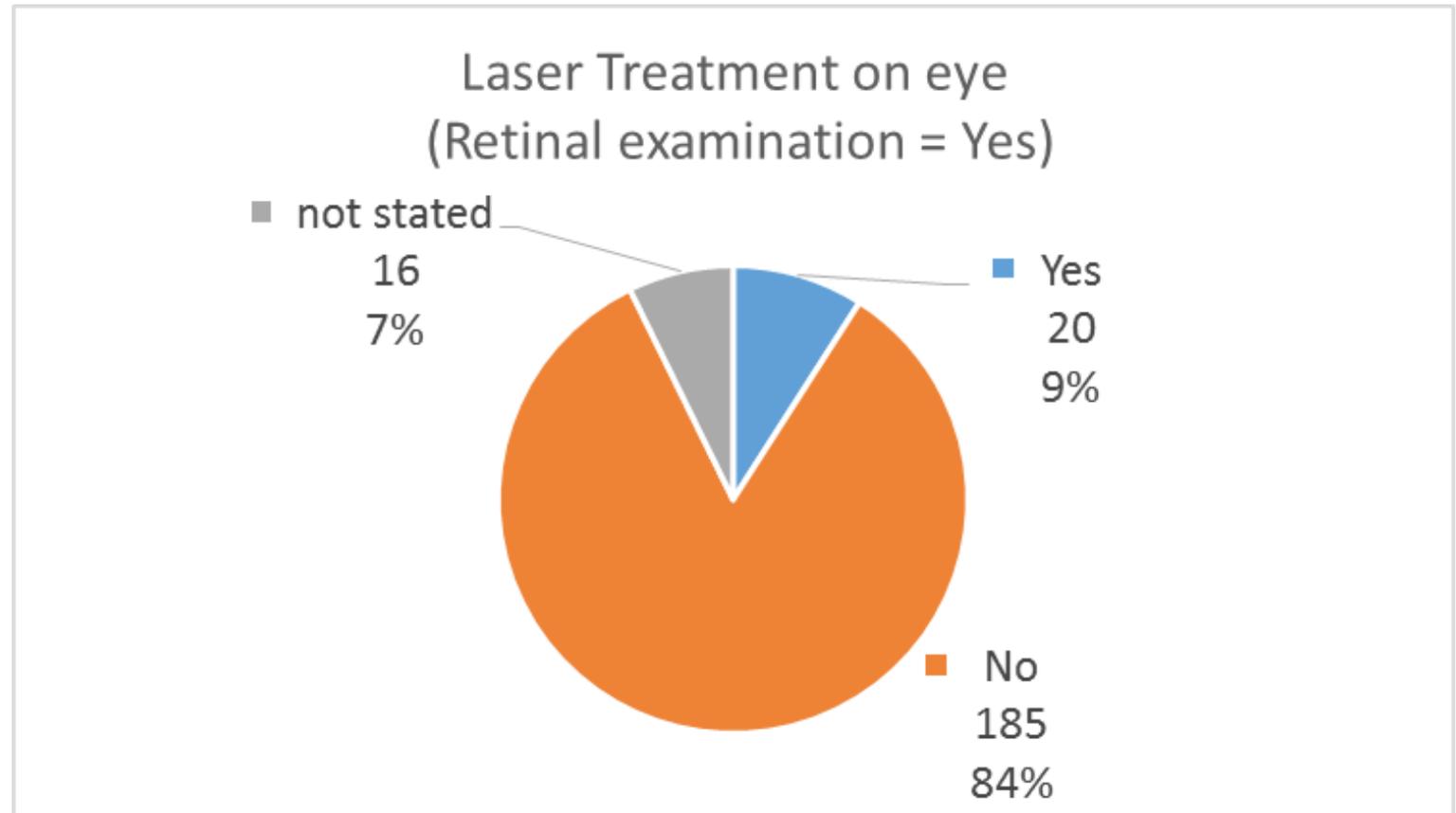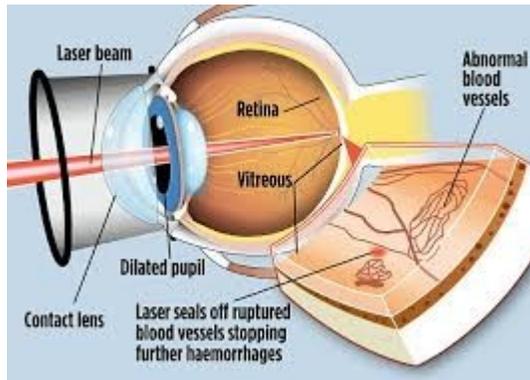
Permanent Blindness (Retinal examination = Yes

Permanent Blindness	Total number of patients	%
Yes	5	**2%**
No	200	**90%**
not stated	16	**7%**
Total	**221**	**100%**
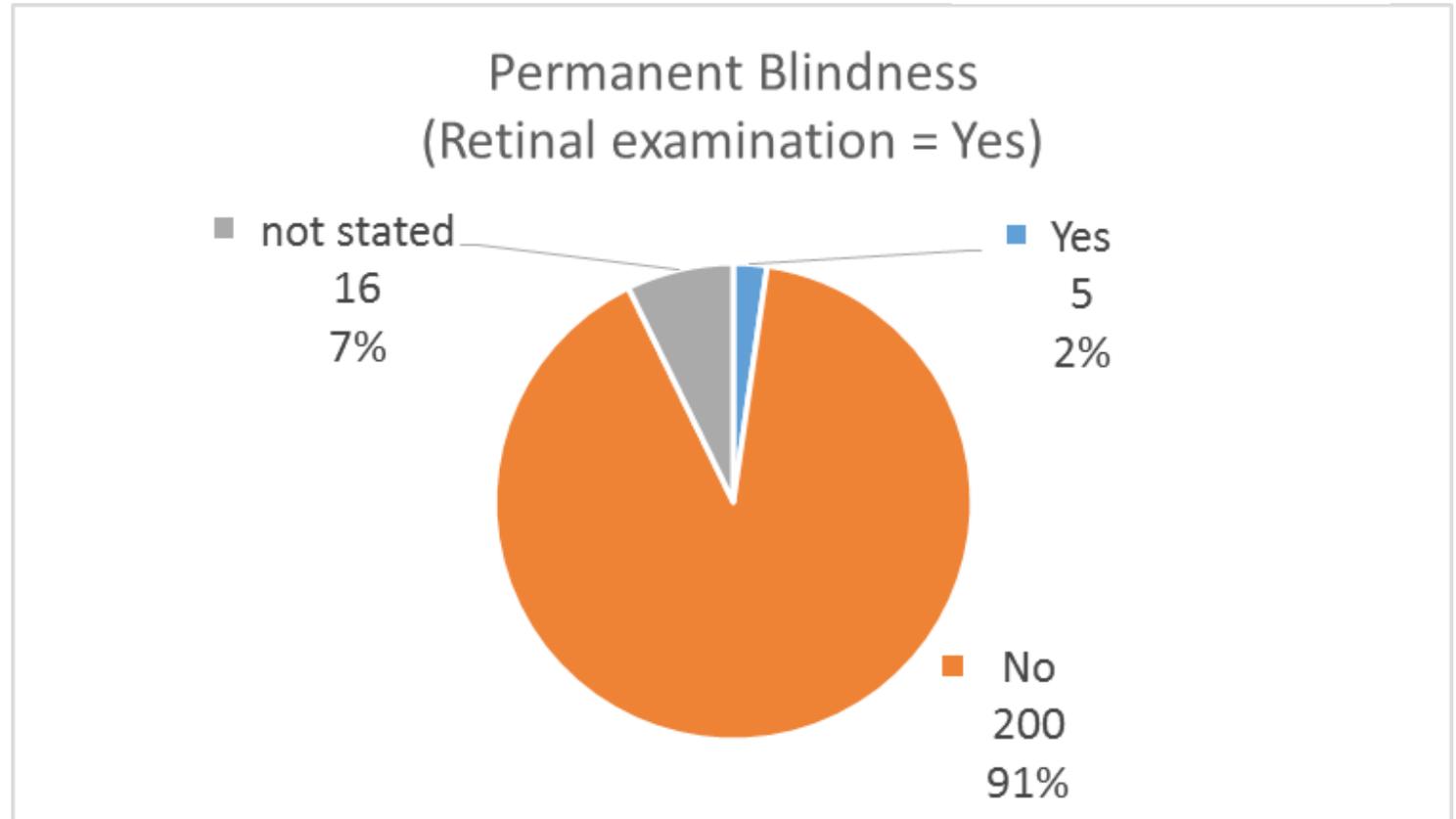
Permanent Blindness
(Retinal examination = Yes)

- not stated 16 7%
- Yes 5 2%
- No 200 91%

Treatment
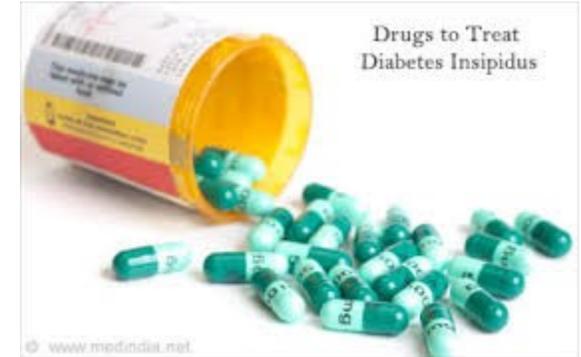
Lipid-Lowering Therapy (last episode in 12 months)
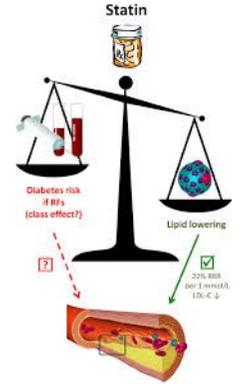
lipid-Lowering Therapy	Total number of patients	%
Yes	218	69%
No	86	27%
not stated	10	3%
Total	314	100%

Lipid-Lowering Therapy (last episode in 12 months)
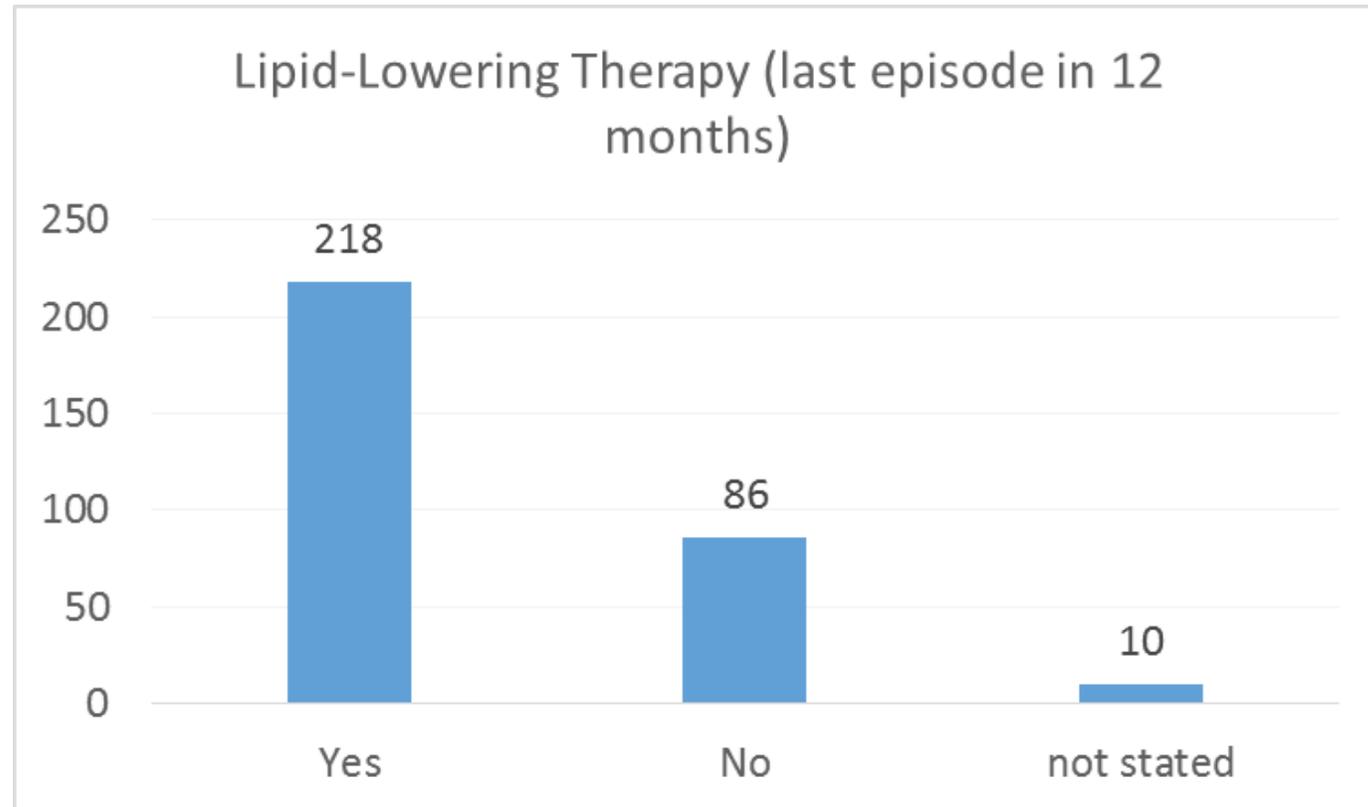
Anti-Platelet Therapy (last episode in 12 months)

Anti-Platelet Therapy	Total number of patients	%
Yes	78	25%
No	131	42%
Aspirin	90	29%
Dipyridamole	3	1%
Clopidogrel	4	1%
not stated	8	3%
Total	**314**	**100%**

Anti-Platelet Therapy (last episode in 12 months)
- Clopidogrel 4 1%
- not stated 8 2%
- Dipyridamole 3 1%
- Aspirin 90 29%
- Yes 78 25%
- No 131 42%
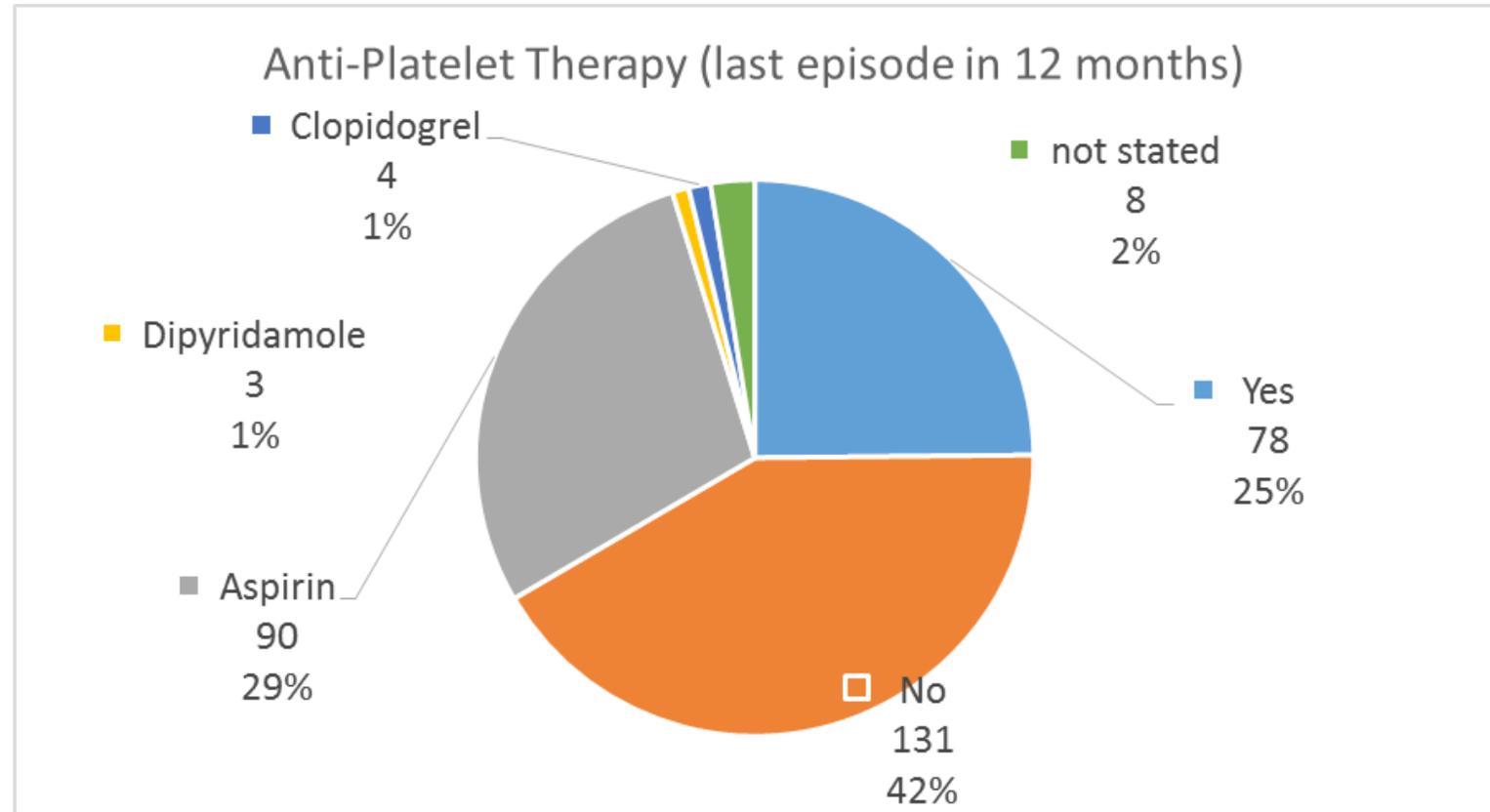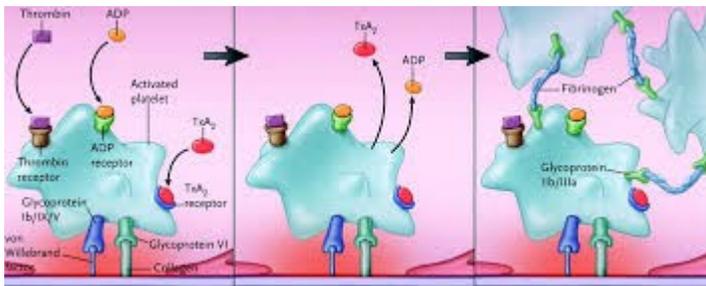
Pump Therapy (last episode in 12 months)

Pump Therapy	Total number of patients	%
Yes	16	5%
No	298	95%
Total	**314**	**100%**

16 people on Pump therapy:
- **15 with Type 1 Diabetes**
- **1 with Type 2 Diabetes.**

How a Pump Works

The insulin is housed inside the pump in a little cartridge called a "reservoir."

The needle is held in place by an "infusion set," a little adhesive patch stuck to your skin.

Insulin travels into your body through a flexible tube that ends with a tiny needle called a "cannula" inserted just under the skin.

Pump Therapy (last episode in 12 months)

- Yes 16 5%
- No 298 95%

Pump Therapy by type of diabetes

- No 298 95%
- Yes 16 5%
- Type 2 1 0%
- Type 1 15 5%

Oral Therapy

Oral Therapy	N
Sulphonyluleas	105
Biguanides	196
Glucosidase Inhibitors	0
Glitazones	1
Glinides	0
Incretine analog	0
DDP4 Inhibitors	52
SGLT2 Inhibitors	2
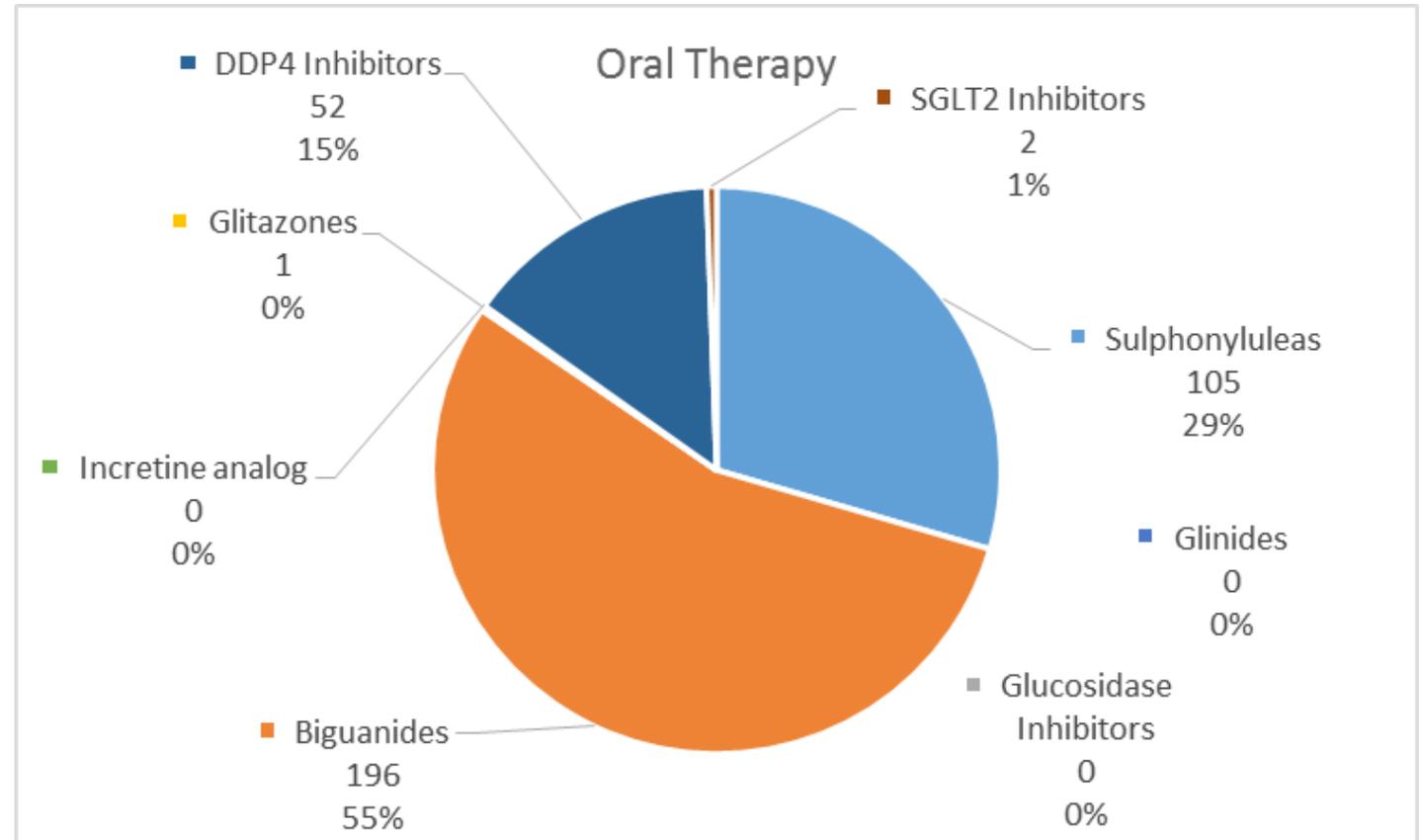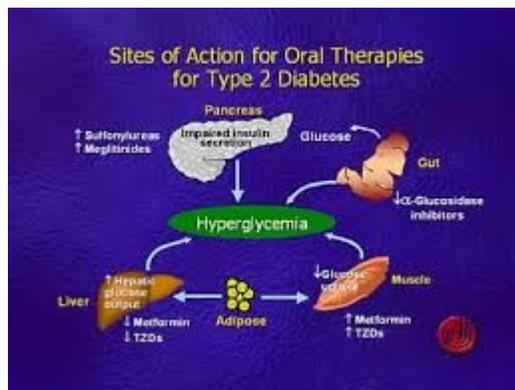
Hypoglycaemic drug therapy (last episode in 12 months)

Hypoglycaemic drug therapy	Total number of patients	%
Tablets Only	138	44%
Insulin Only	100	32%
Insulin and Tablets	74	24%
None (Diet Only)	2	1%
Total	**314**	**100%**

Hypoglycaemic drug therapy (last episode in 12 months)

- None (Diet Only) 2 1%
- Insulin and Tablets 74 23%
- Tablets Only 138 44%
- Insulin Only 100 32%
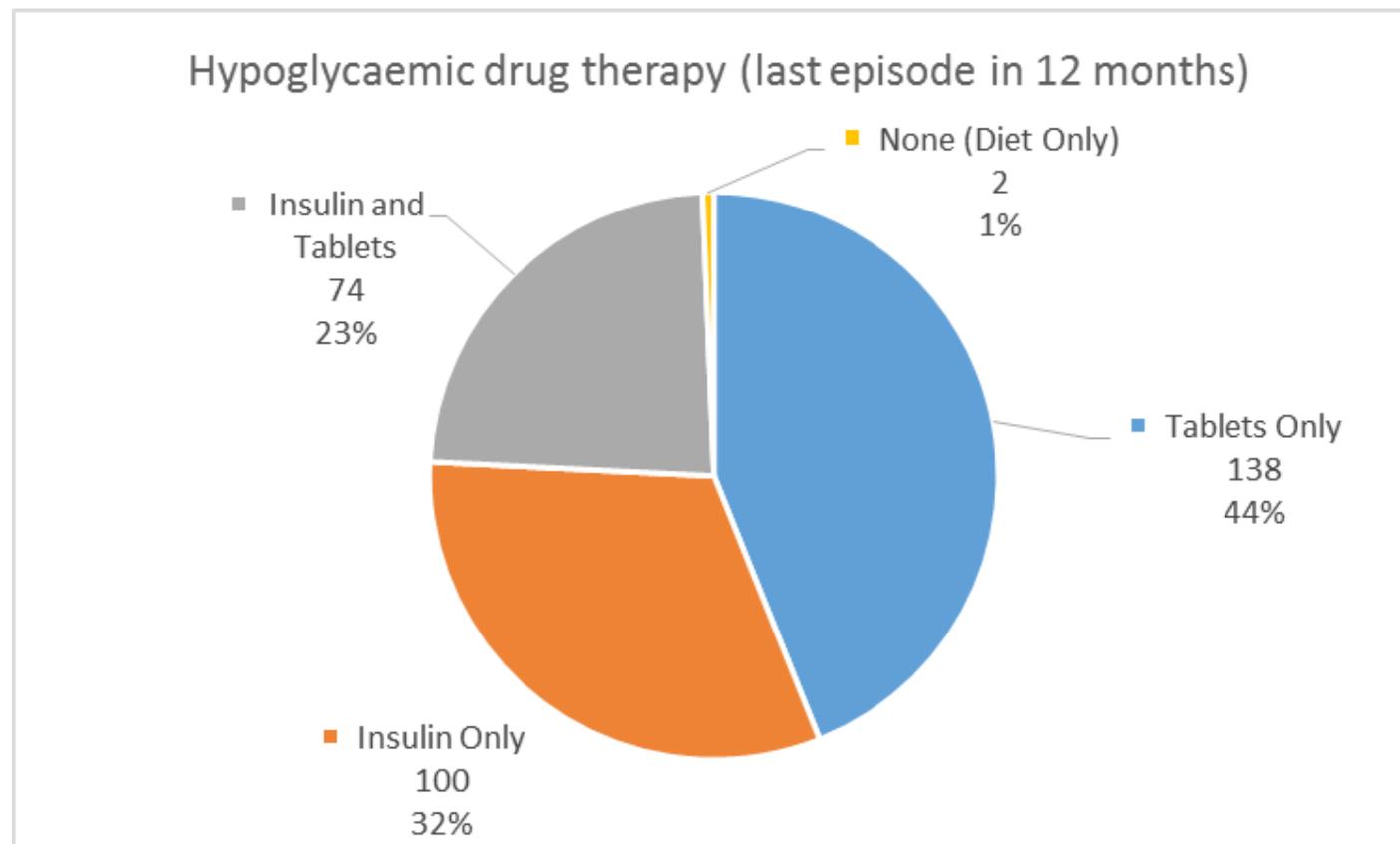
Complications of diabetes
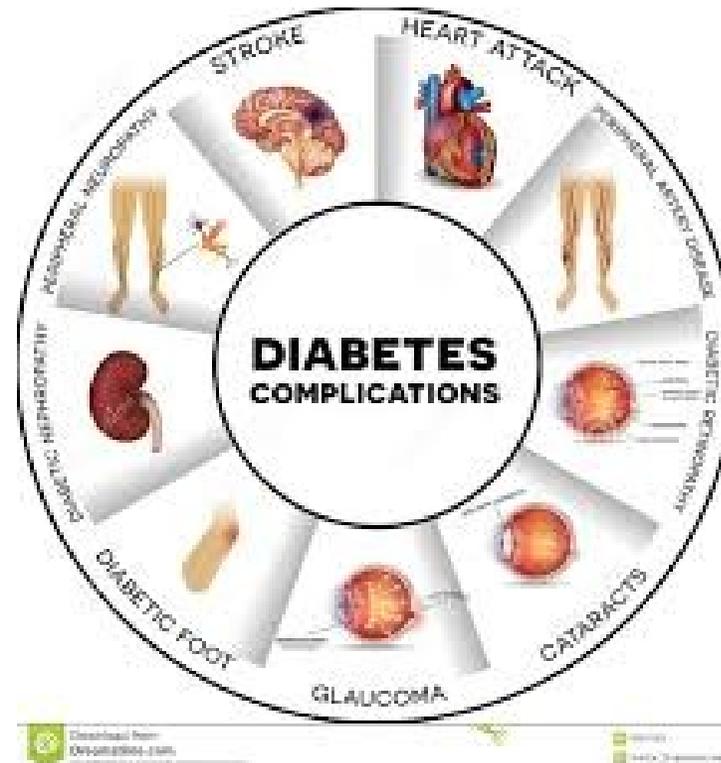
Hypertension

Hypertension	Total number of patients	%
Yes	233	74%
No	68	22%
not stated	13	4%
Total	**314**	**100%**
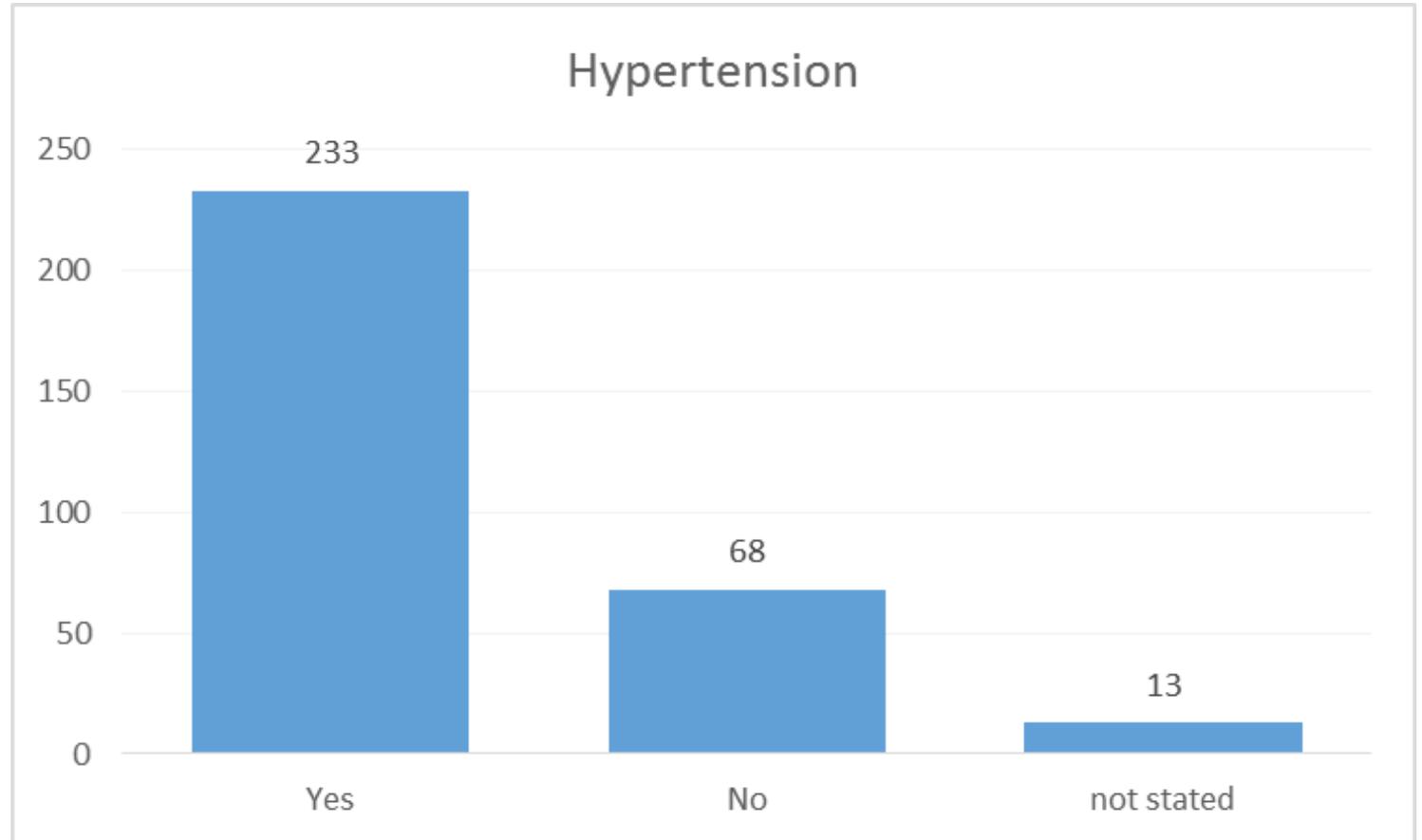
Hypertension

Hypertension = Yes, by age group

Age group	Total number of patients	%
No	68	22%
Not stated	13	4%
Yes	233	
18-25	0	0%
26-50	14	4%
51-64	64	20%
65-80	132	42%
80+	23	7%
Total	**314**	**100%**

Hypertension = Yes, by age group
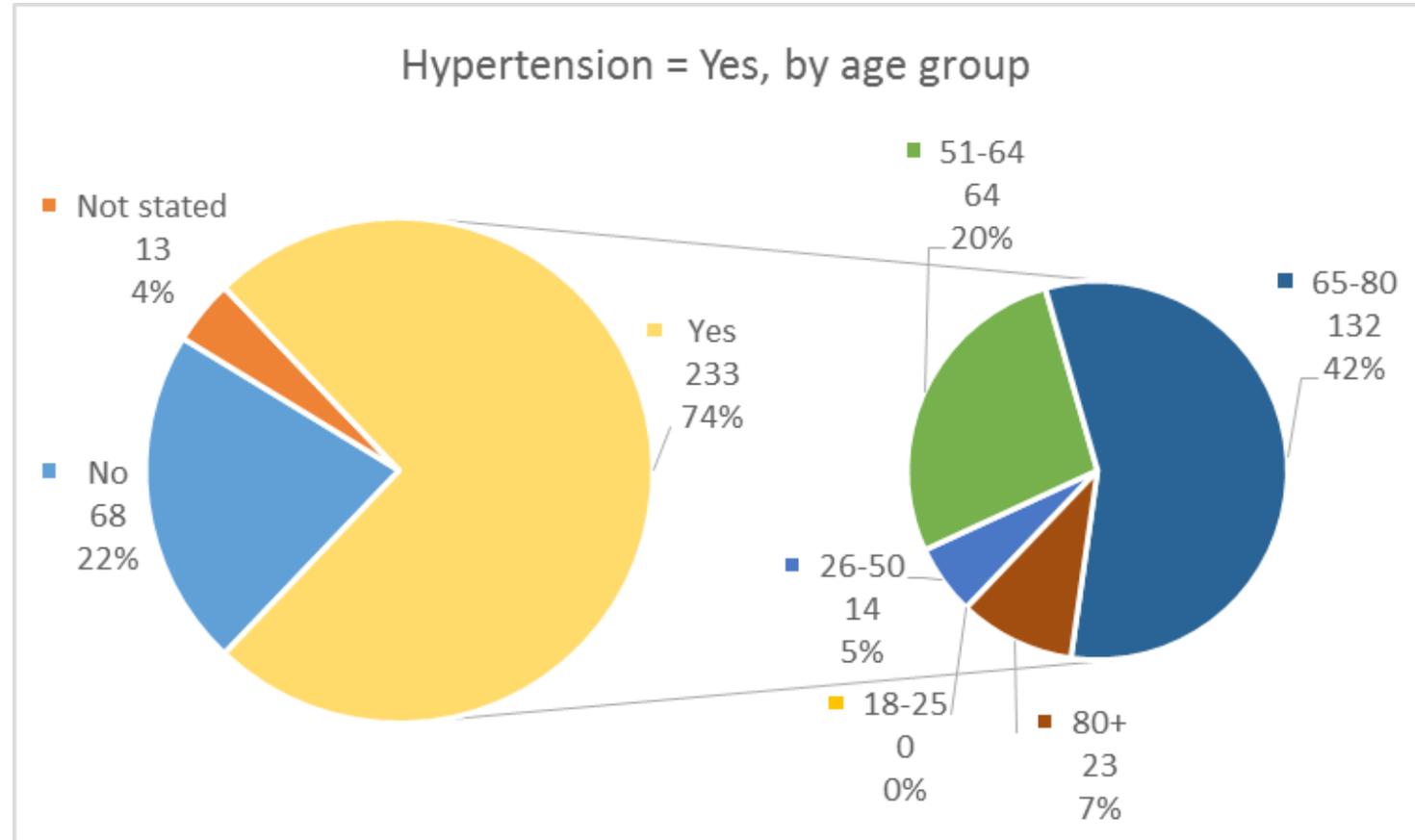
Antihypertensive Medication

Antihypertensive Medication	Total number of patients	%
Yes	233	**74%**
No	74	**24%**
not stated	7	**2%**
Total	**314**	**100%**
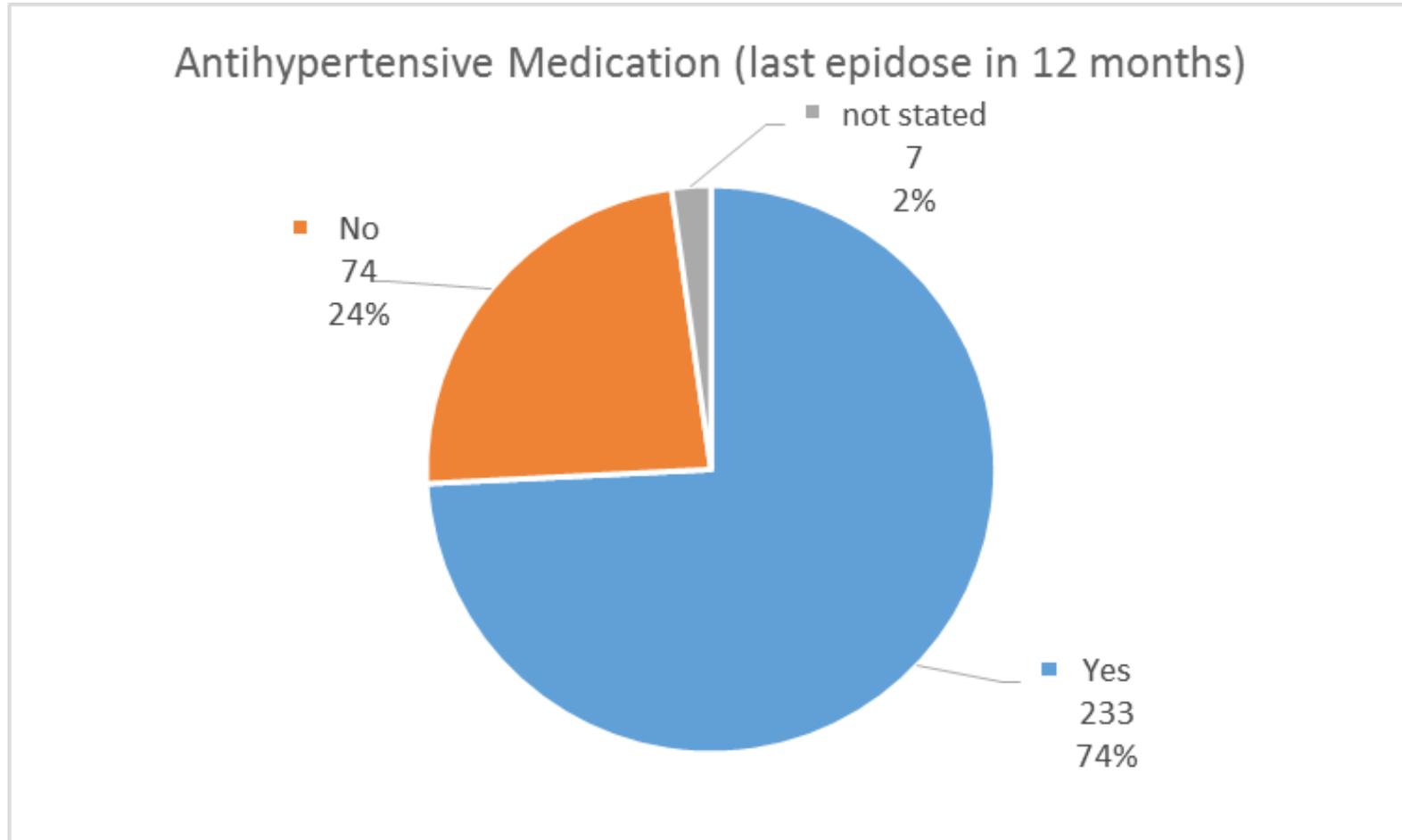
Antihypertensive Medication (last epidose in 12 months)

- not stated 7 2%
- No 74 24%
- Yes 233 74%

Antihypertensive Medication = Yes, by age group

Antihypertensive Medication	Total number of patients	%
No	74	24%
not stated	7	2%
Yes:	233	
18-25	0	0%
26-50	14	4%
51-64	66	21%
65-80	131	42%
80+	22	7%
Total	**314**	**100%**

Antihypertensive Medication = Yes, by age group

Stroke

Stroke	Total number of patients	%
Yes	17	5%
No	285	91%
not stated	12	4%
Total	314	100%
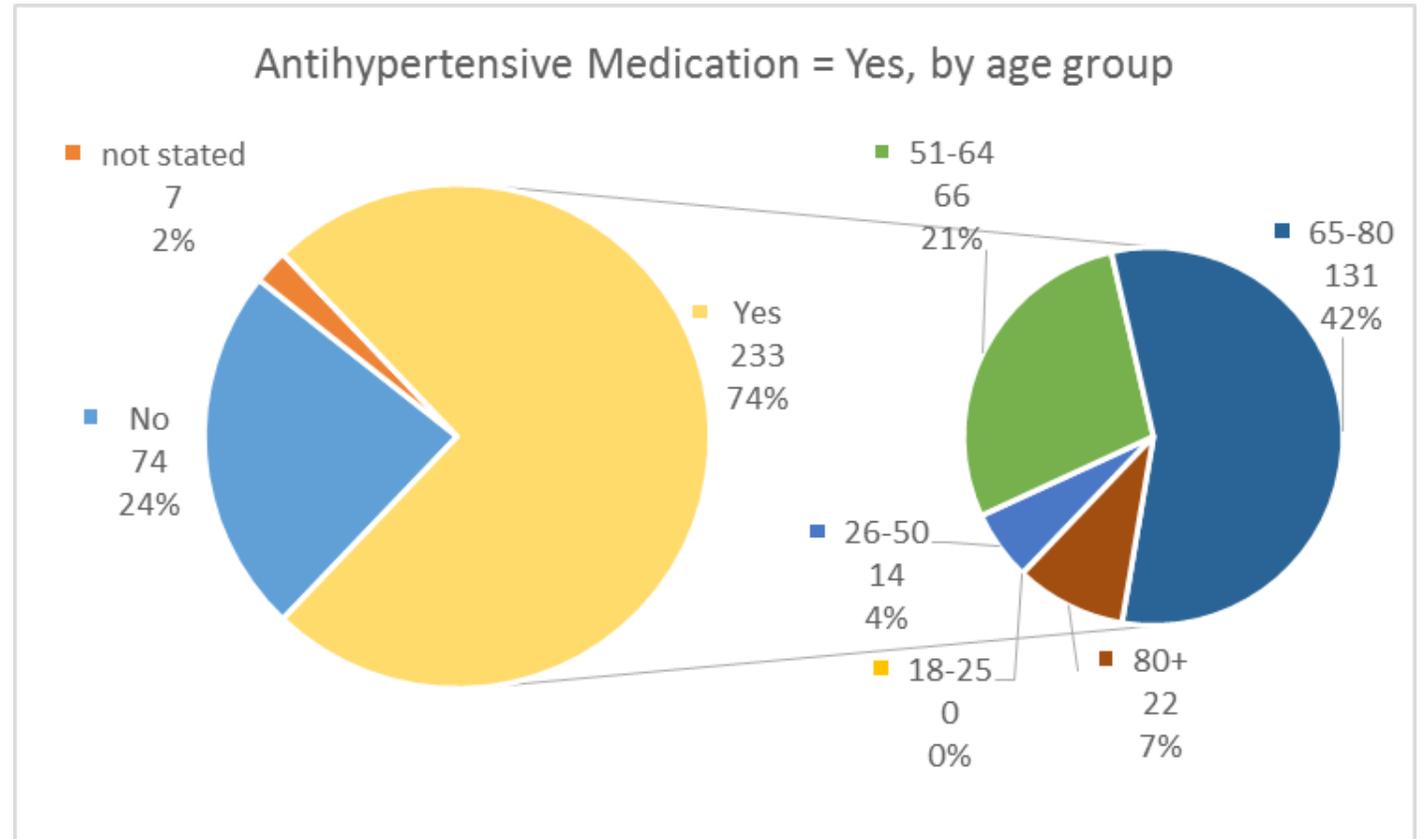
Myocardial Infraction

By sex

Myocardial Infraction	Males	Females	Total
Yes	41	9	50
No	131	121	252
not stated	6	6	12
Total	**178**	**136**	**314**
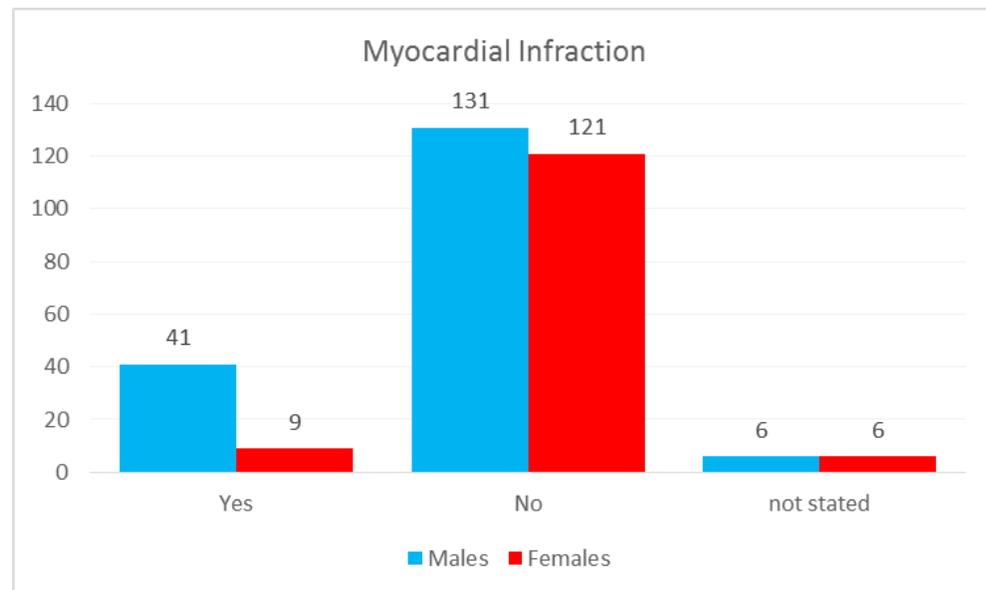
By sex & age group (Myocardial Infraction = Yes)

Age group	Males	Females	Total
18-25			
26-50	1		1
51-64	11	2	13
65-80	26	5	31
80+	3	2	5
Total	**41**	**9**	**50**
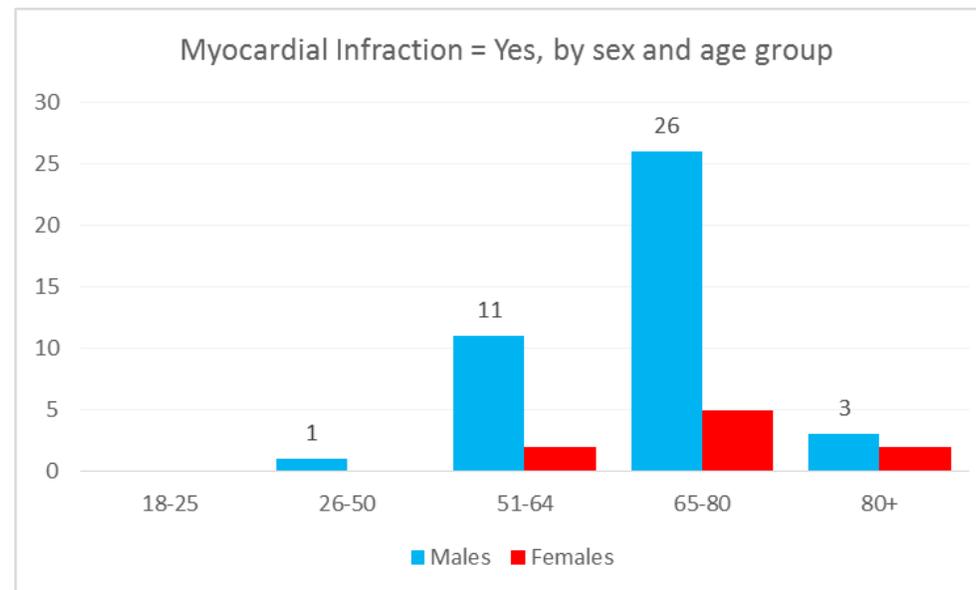
Lifestyle factors
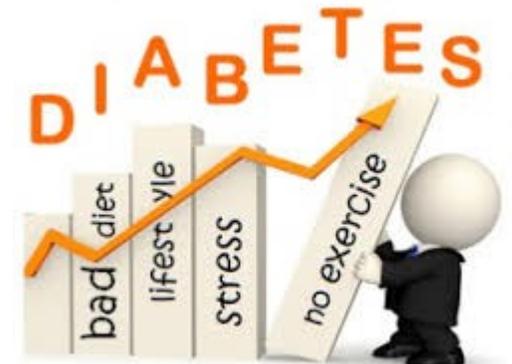
Smoking Status, by sex

Smoking Status	Males	Females	Total
Non-Smoker	66	108	174
Current Smoker	39	14	53
Ex-Smoker	71	13	84
not stated	2	1	3
Total	**178**	**136**	**314**

Smoking Status by sex
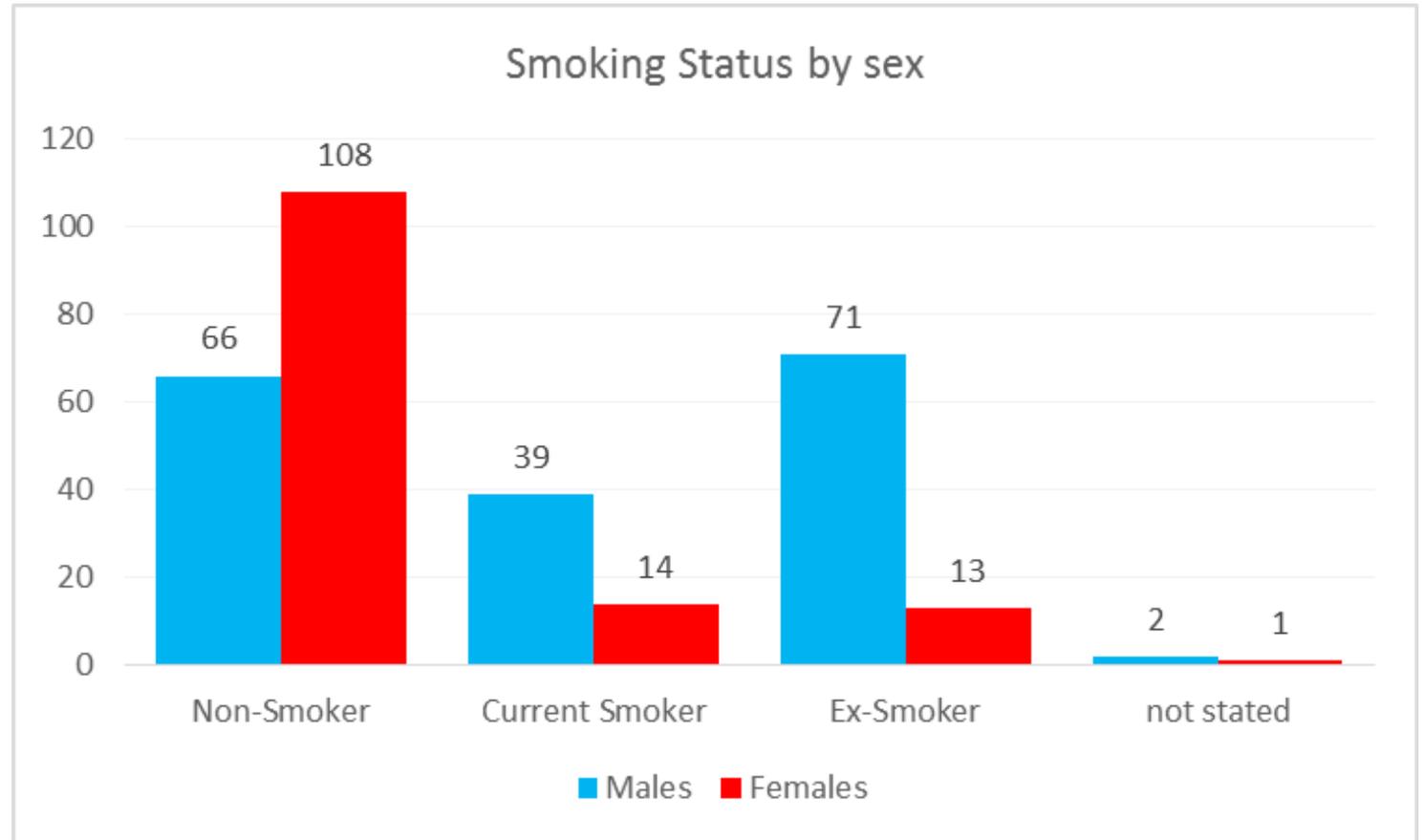
Alcohol Status by sex

Alcohol Status	Males	Females	Total
Current Drinker	64	11	75
Ex-Drinker	2	1	3
Non-Drinker	110	123	233
not stated	2	1	3
Total	**178**	**136**	**314**
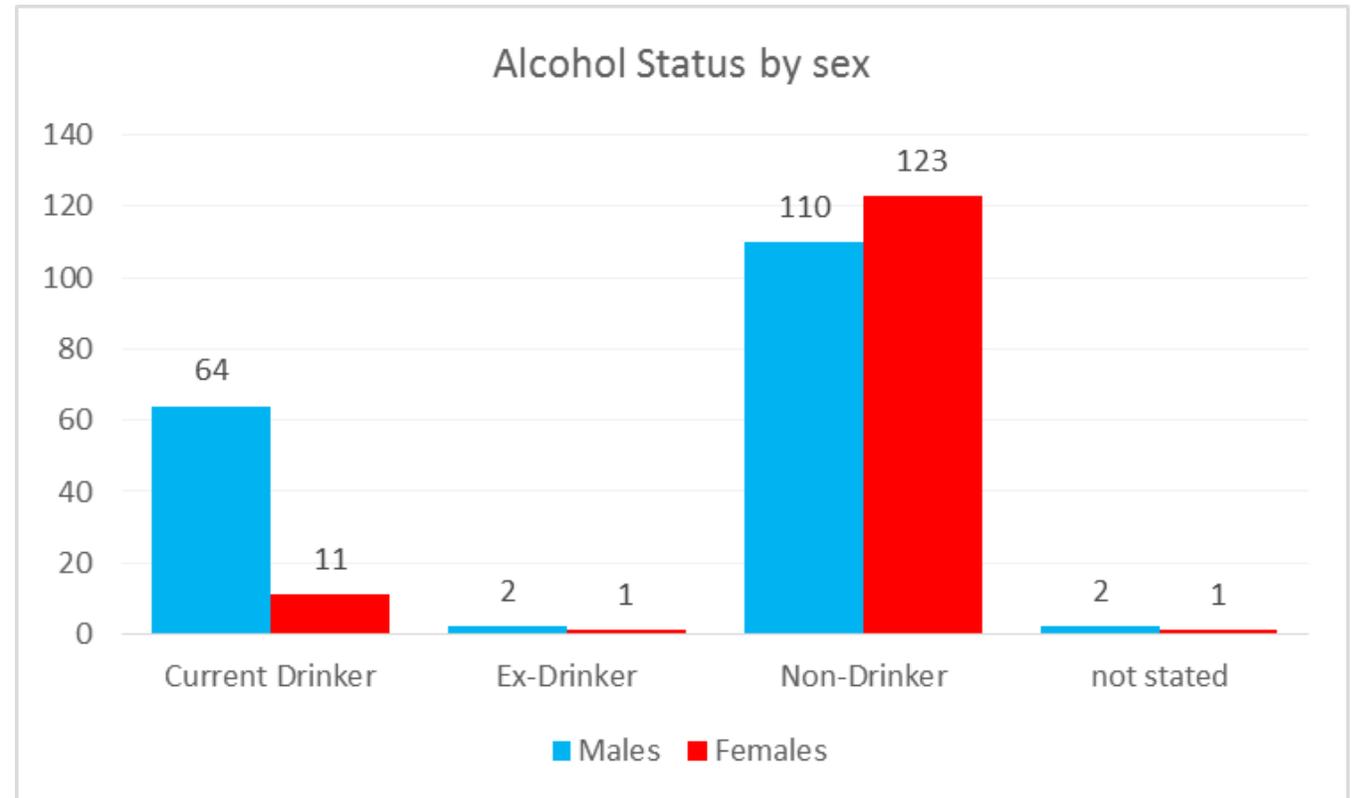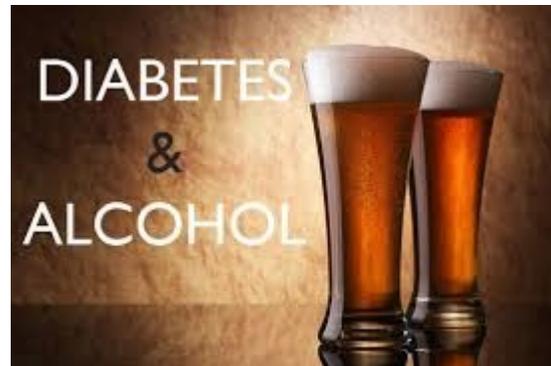
Alcohol intake (Alcohol Status = Current Drinker), by sex

Alcohol intake	Males	Females	Total
Occasionally	41	8	49
Some	12	2	14
Moderate	7		7
Chronic alcoholism	2		2
not stated	2	1	3
Total	**64**	**11**	**75**

Alcohol Definition of Moderate

1.5 oz. = 5 oz. = 12 oz.

1 drink = 15 g. alcohol

Alcohol intake (Alcohol Status = Current Drinker), by sex

Males: Occasionally 41, Some 12, Moderate 7, Chronic alcoholism 2, not stated 2

Females: Occasionally 8, Some 2, not stated 1
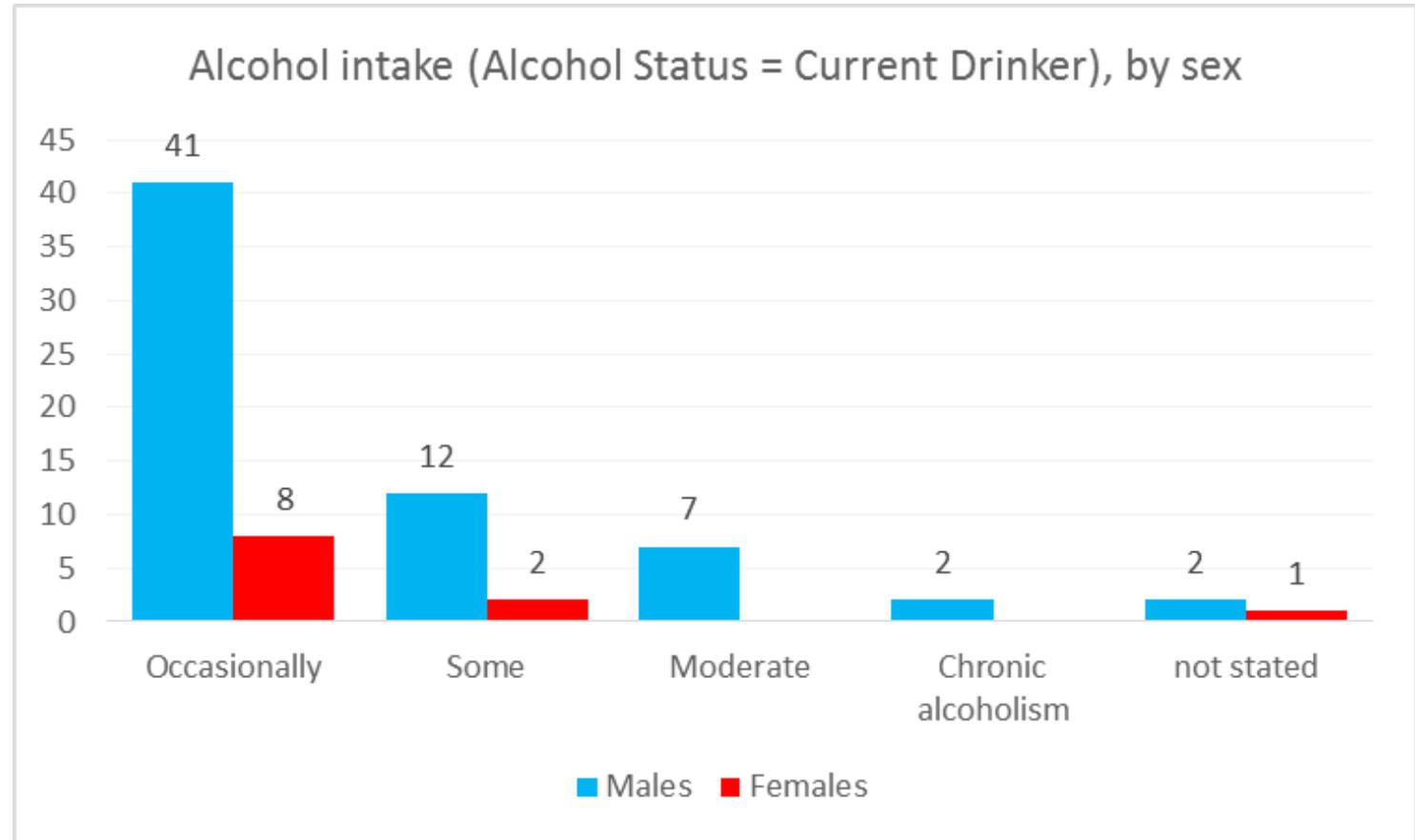
Body Mass Index (BMI), by sex

BMI group	Males	Females	Total	% of total
<18,5, underweight		3	3	**1%**
18,5-24,9, normal	35	25	60	**19%**
25-29,9, overweight	74	38	112	**36%**
30-35, obese	49	30	79	**25%**
>35, clinically obese	19	38	57	**18%**
not stated	1	2	3	**1%**
Total	**178**	**136**	**314**	**100%**
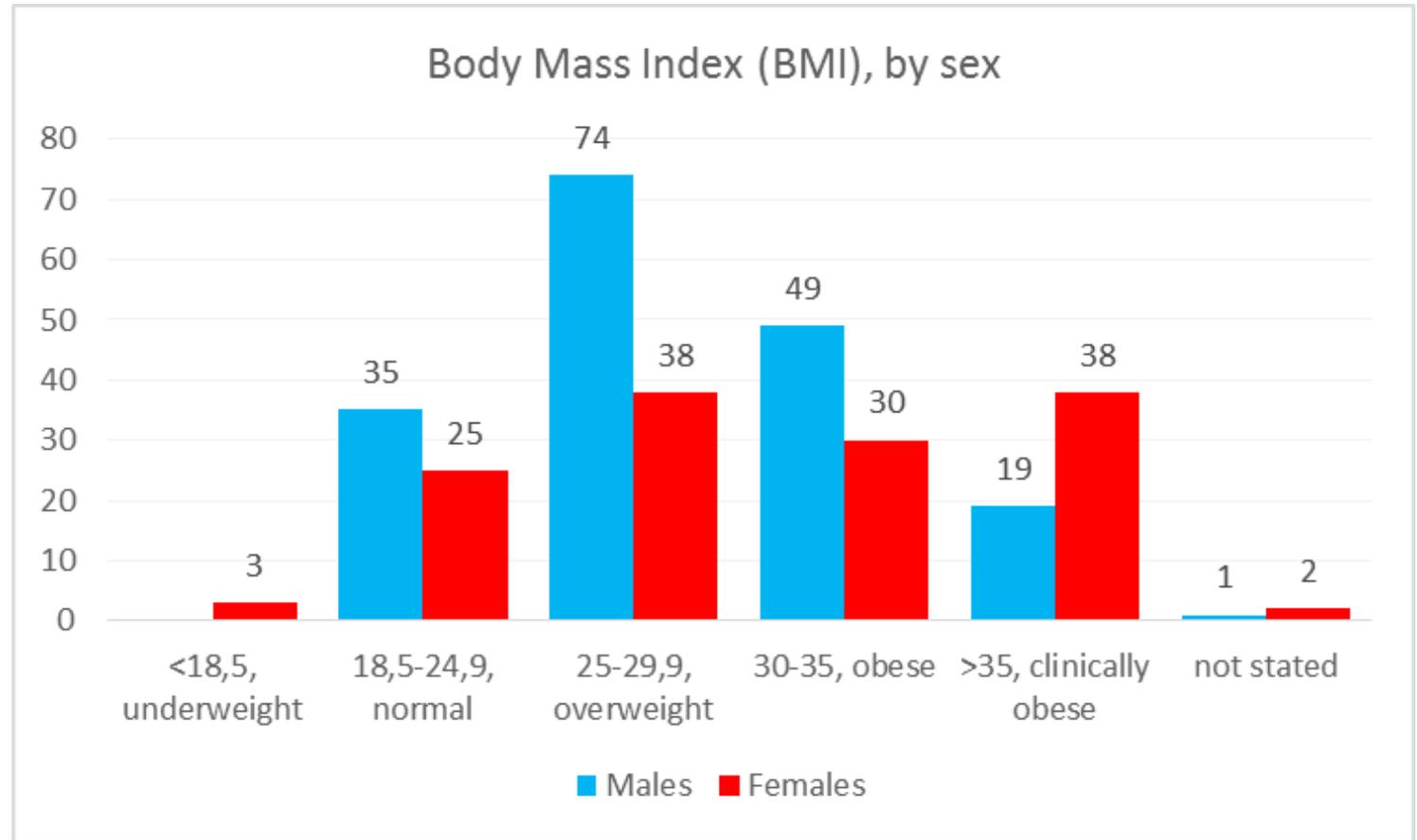
Self-Monitoring

- **Blood glucose**:

- Reagent strips: used by all attending

A blood sample is taken and put on test strip

Strip is put into blood glucose meter

A log book is a helpful aid in keeping track of blood glucose levels

ADAM.
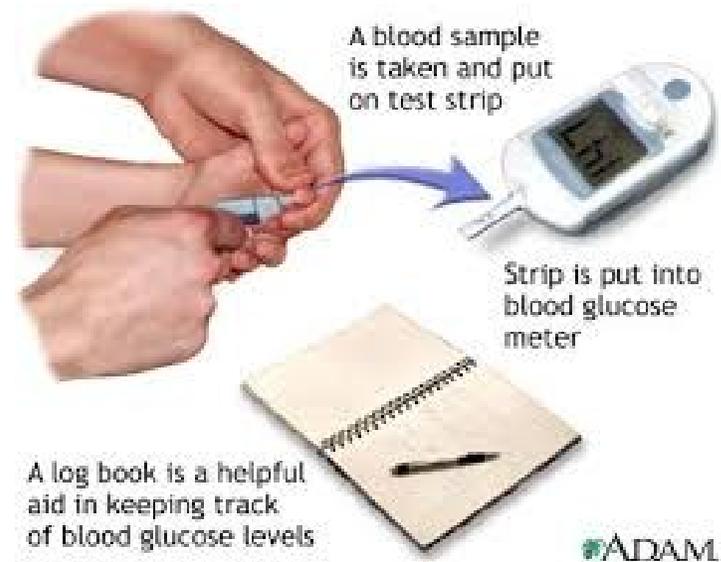
Diabetes Specific Education

Education	Total number of patients	%
Yes	311	99%
No	3	1%
Total	**314**	**100%**