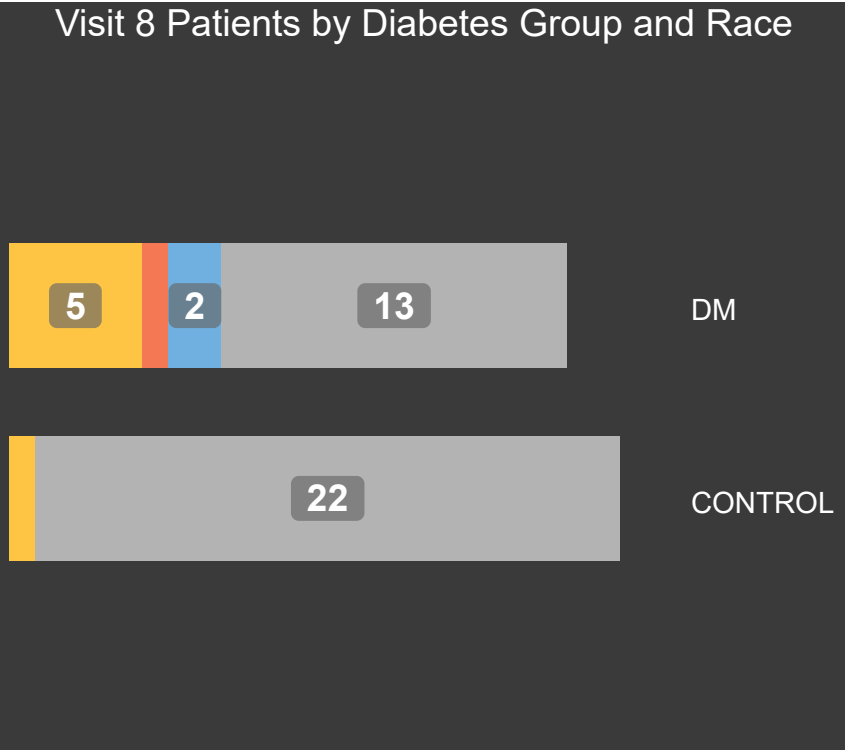
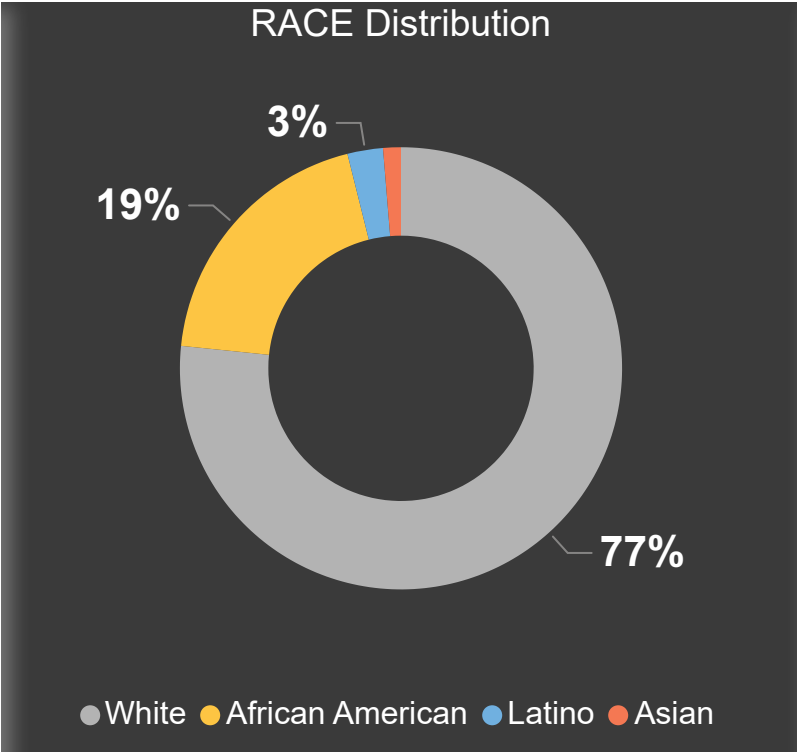
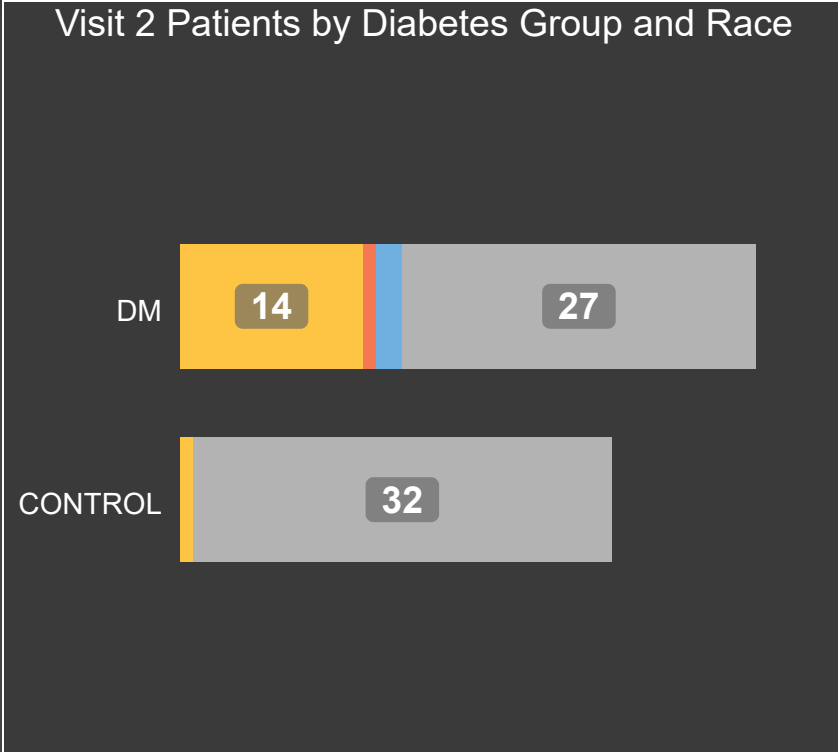
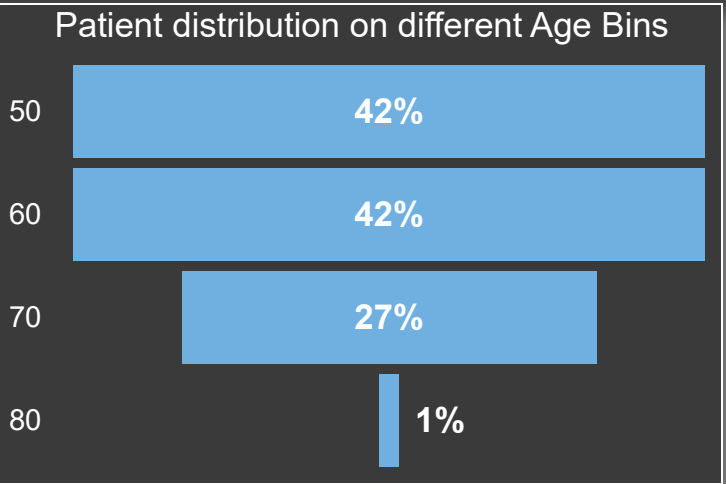
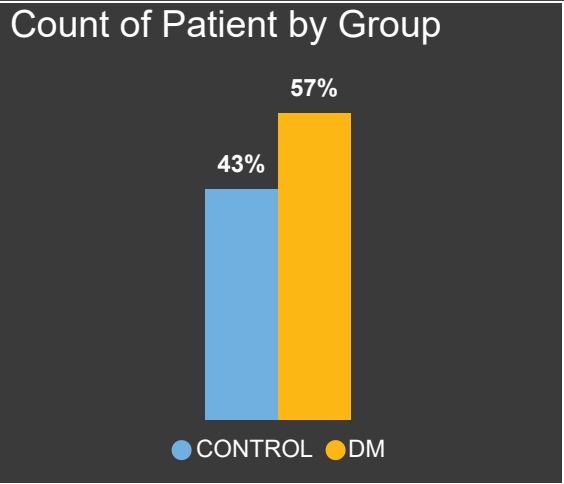
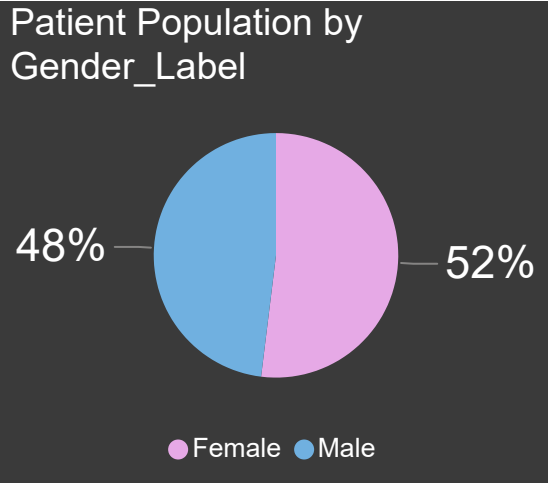
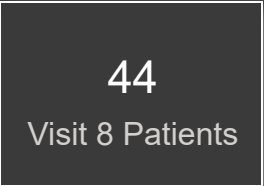
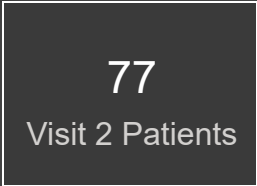
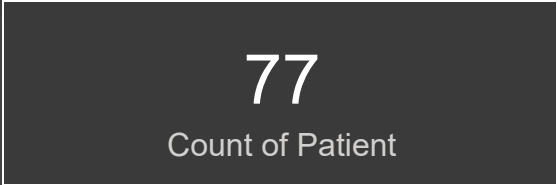
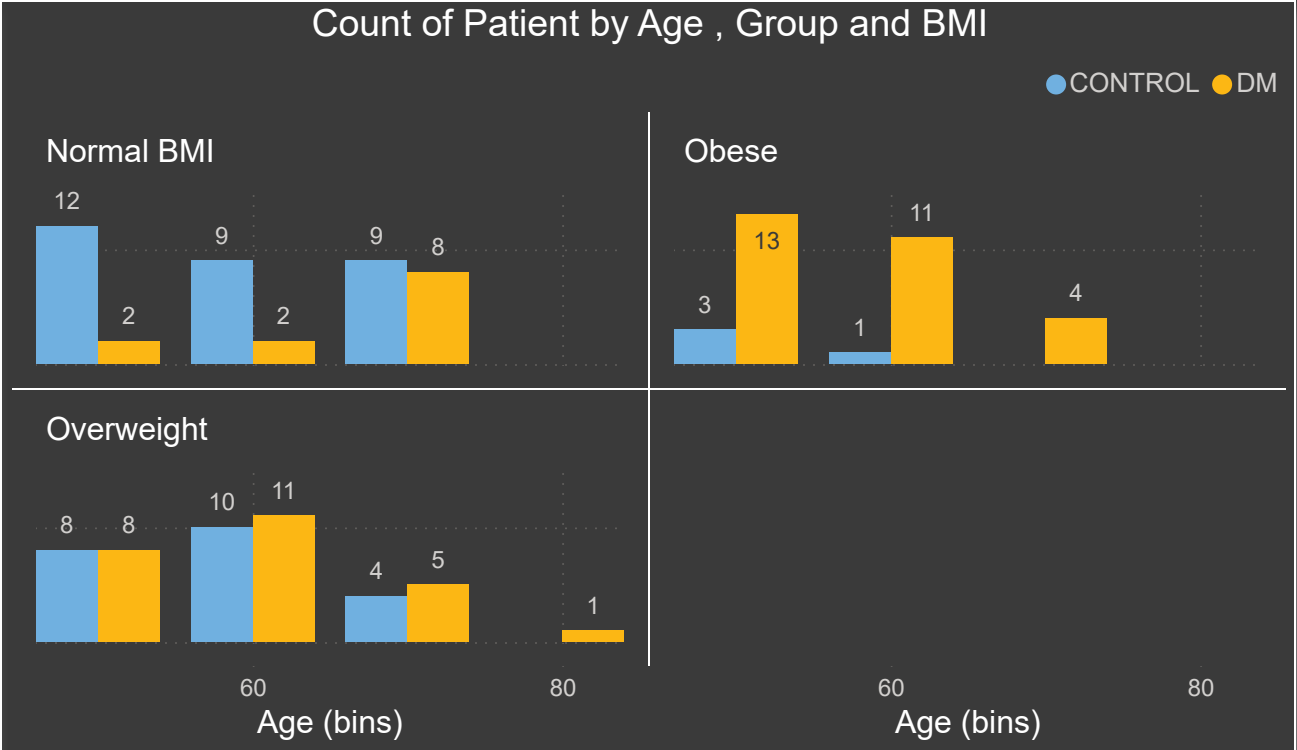
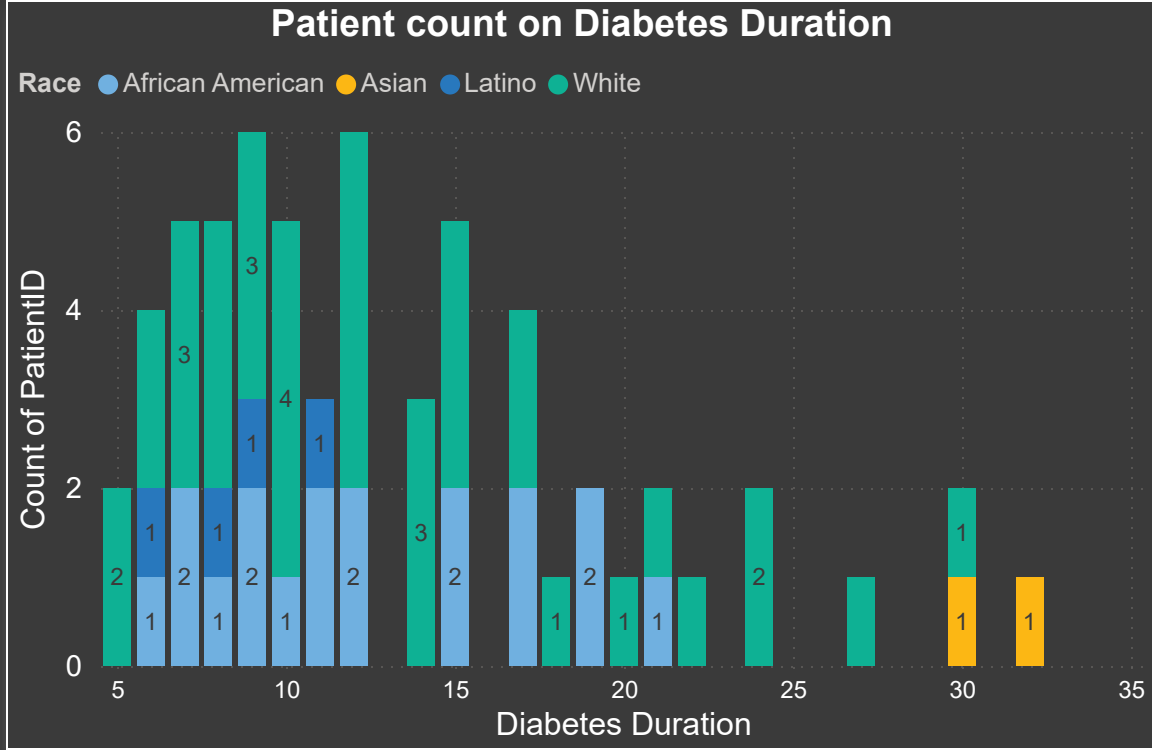
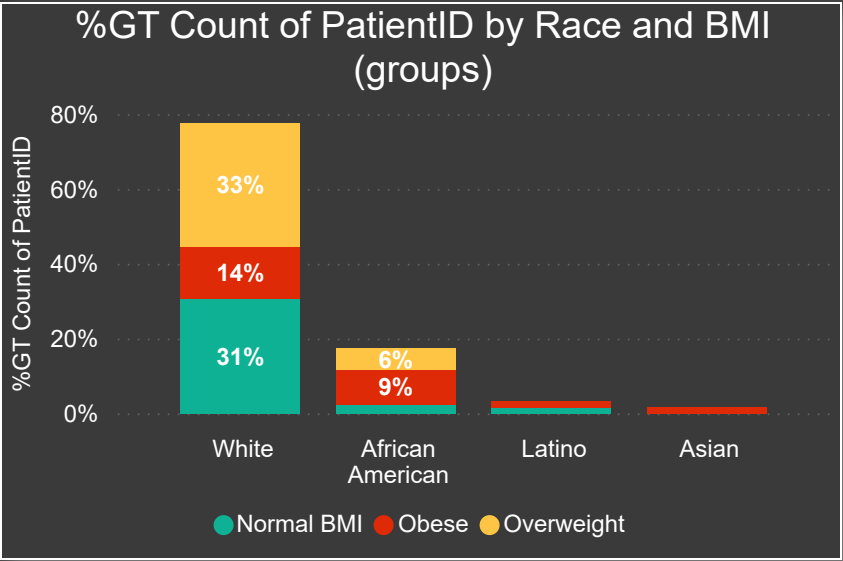
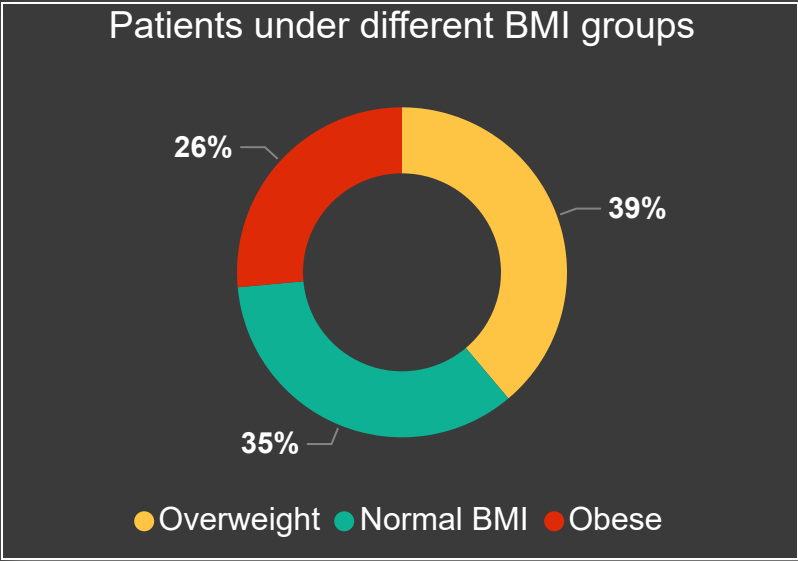
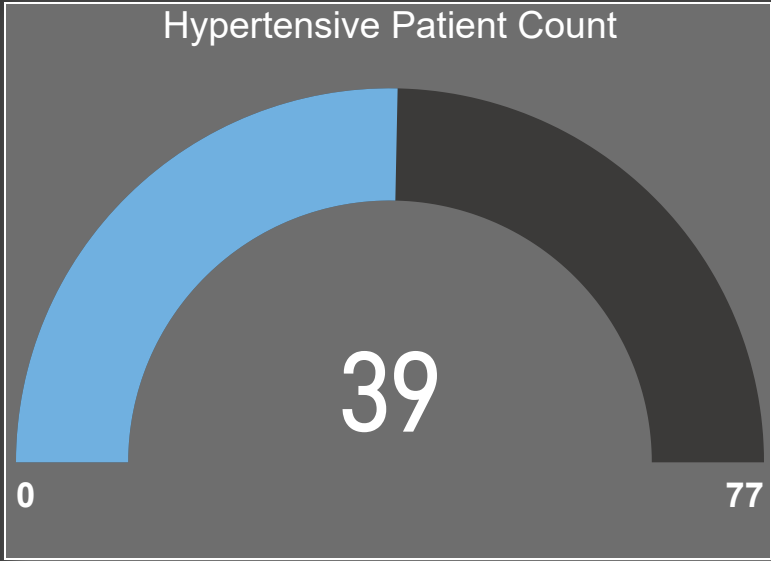
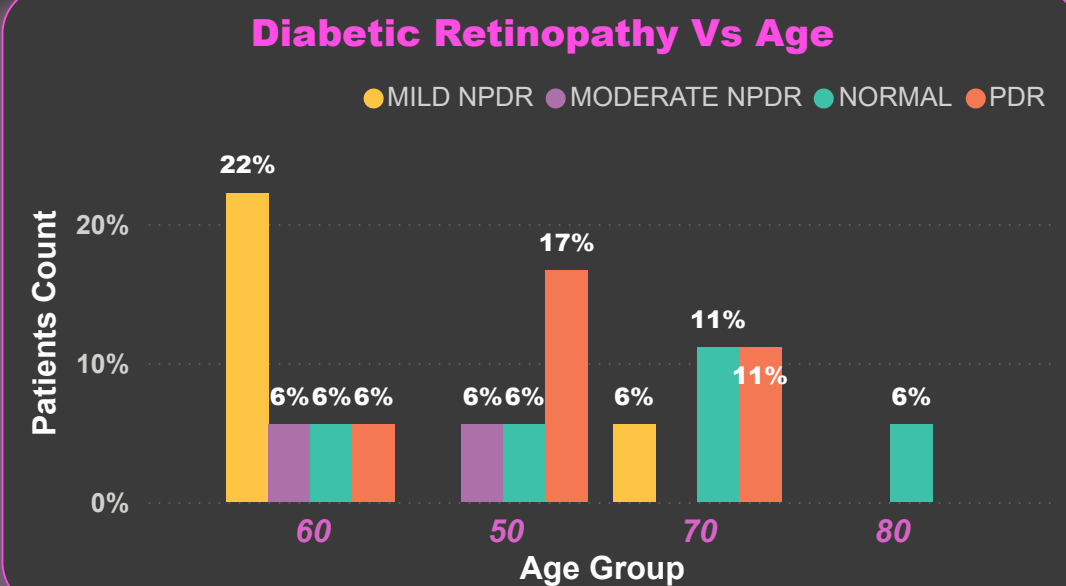
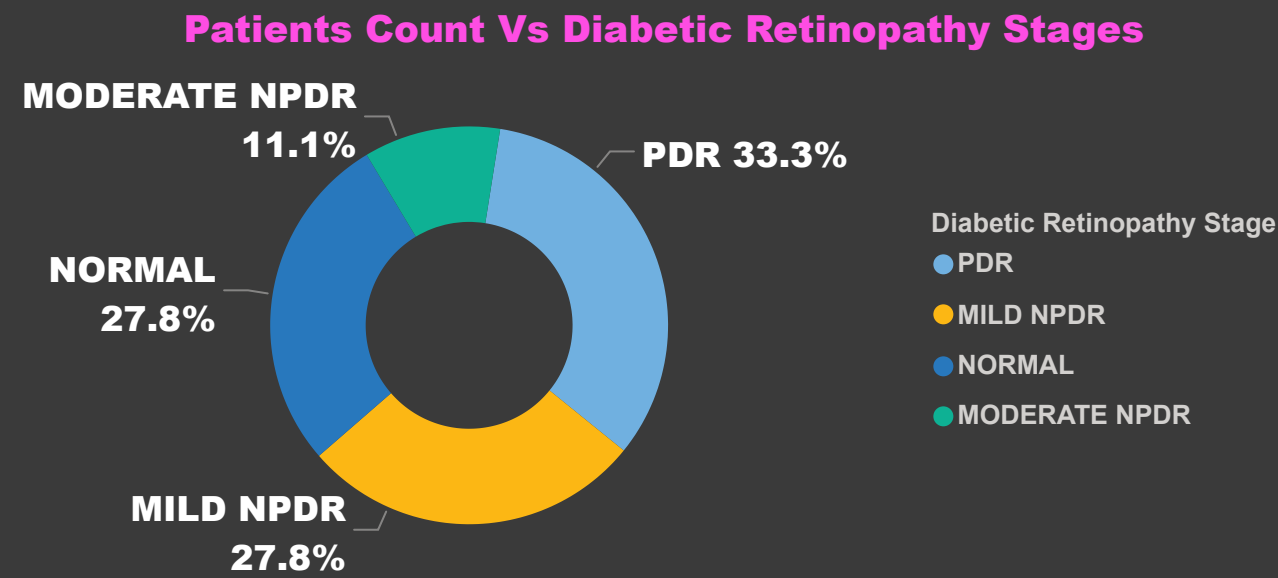


Demographics



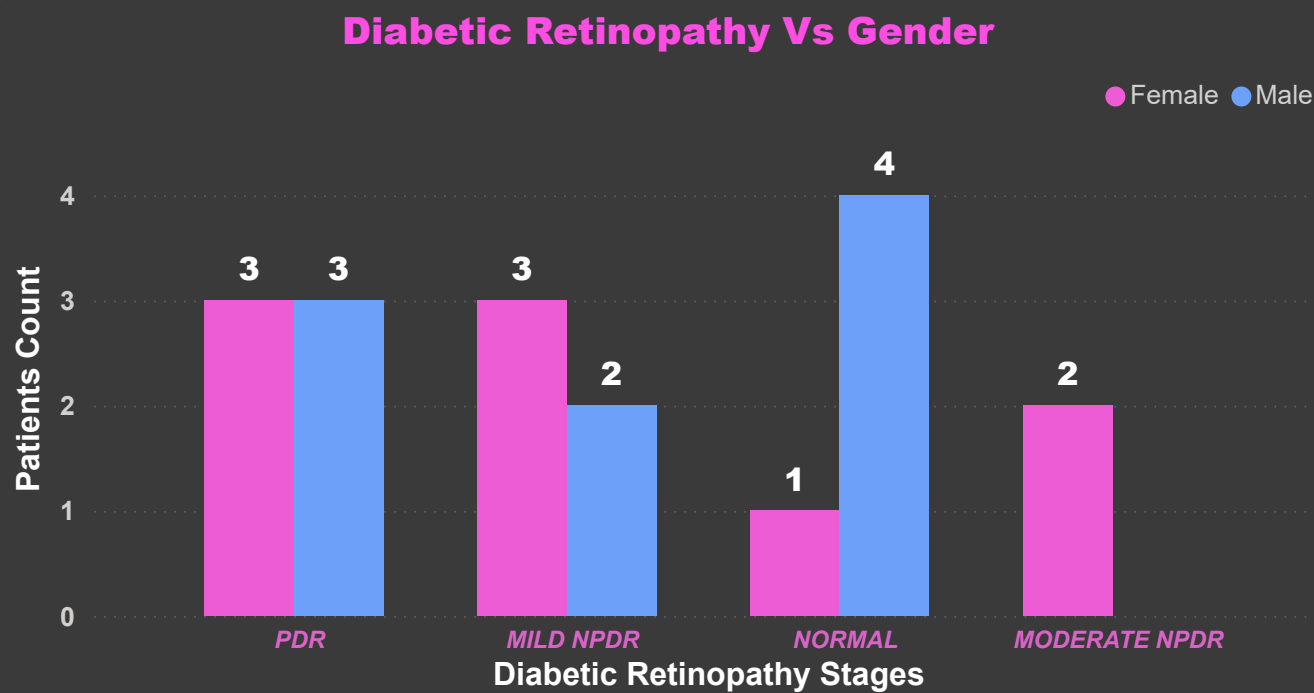


DIABETIC RETINOPATHY



Stages of Diabetic Retinopathy

Stage 1: Mild nonproliferative diabetic retinopathy: It is characterised by tiny area of swelling of the blood vessel in retina. Stage 2: Moderate nonproliferative diabetic retinopathy: Increased swelling of blood vessels starts to interfere with blood flow to the retina. Stage 3: Severe nonproliferative diabetic retinopathy: A larger section of blood vessels in the retina become blocked, causing a significant decrease in blood flow to this area. Body react to new blood vessel growing in retina. Stage 4: Proliferative diabetic retinopathy : The new blood vessel is fully formed and is fragile that increase the high risk of fluid leakage.This cause blurriness, reduced vision & even blindness.



☐ CONTROL

☒ DM

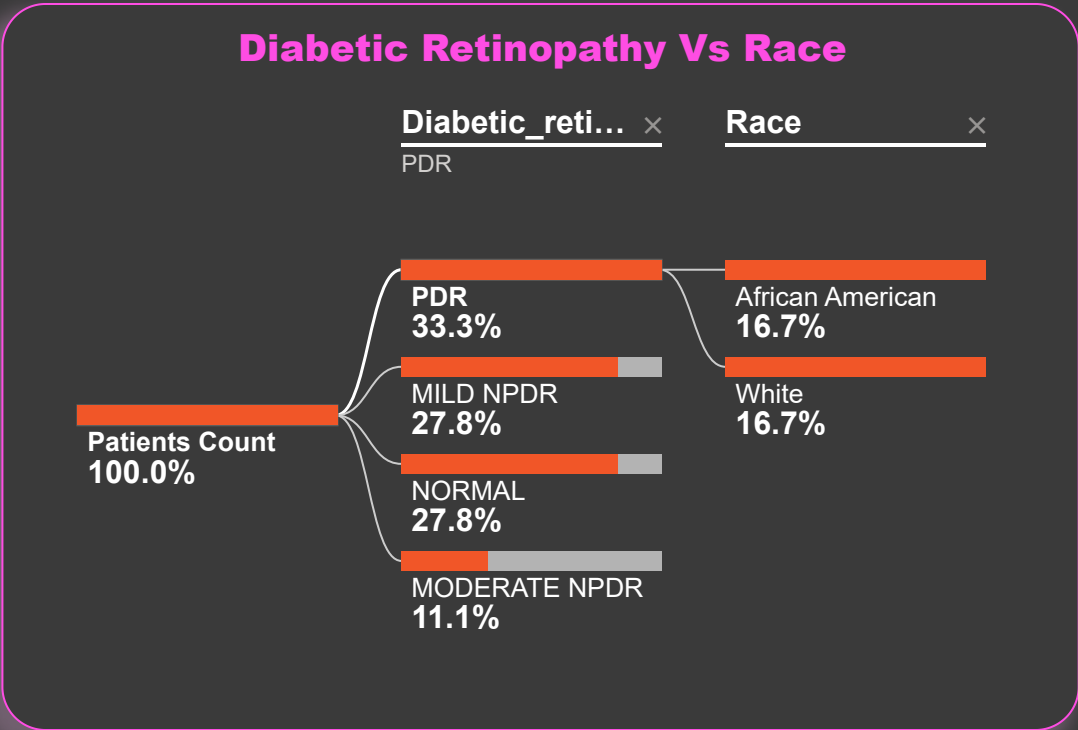
☐ Visit 2

☒ Visit 8

Cognitive_Decline

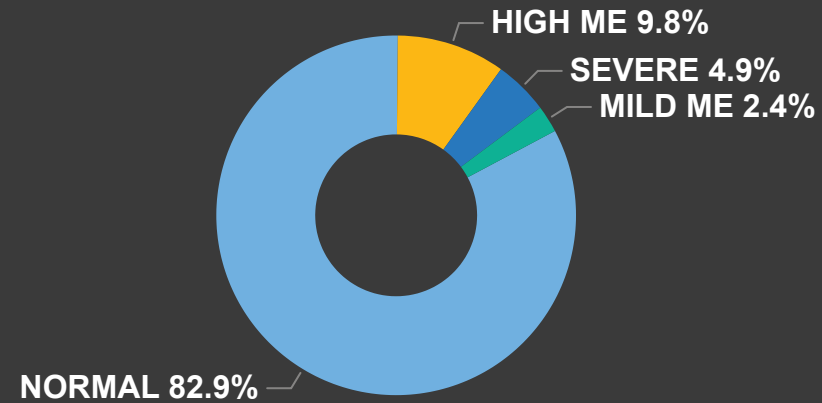
☒ Decline

☐ Mild

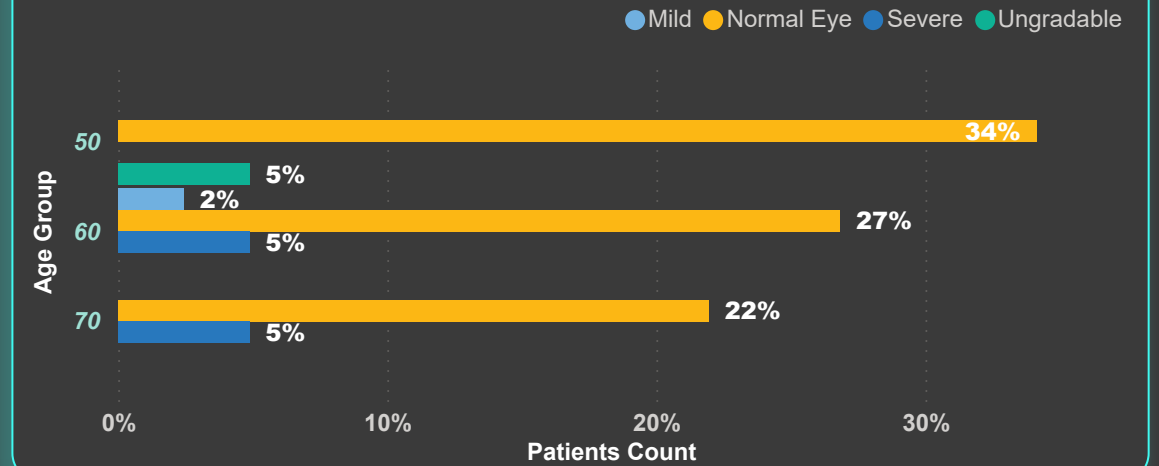


MACULAR EDEMA

Patients Count Vs Macular Edema



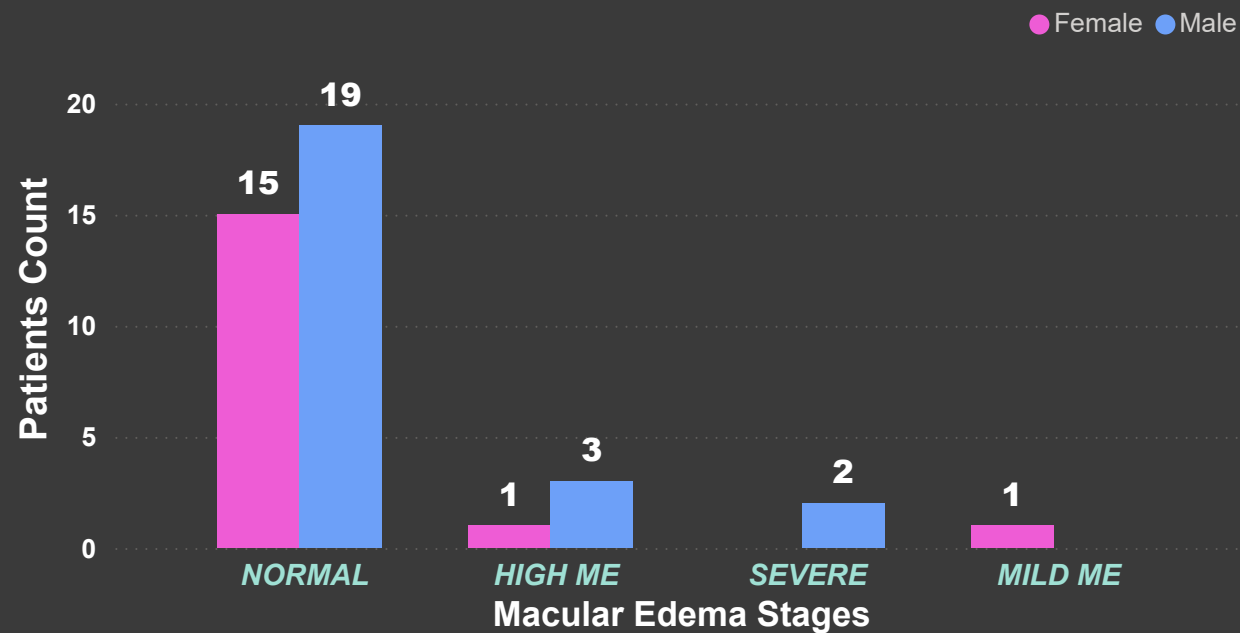
Macular Edema Vs Age



Macular Edema

Maculardema happens when blood vessels leak into a part of the retina called the macula. This can be caused by many conditions, and one of the main conditions being diabetic retinopathy.

Macular Edema Vs Gender

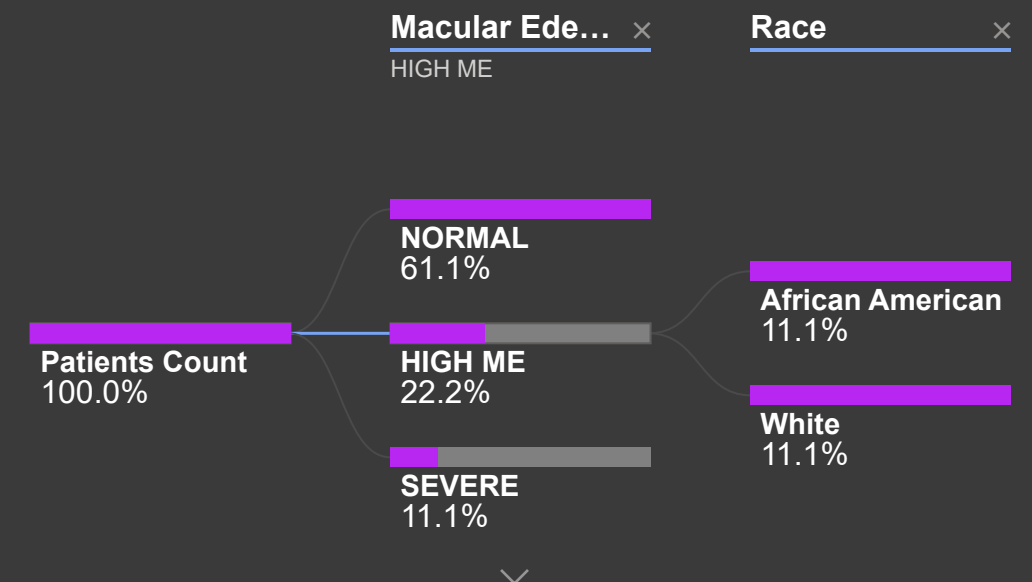


Visit 2
Visit 8

CONTROL
DM

Cognitive Decline
Decline
Mild

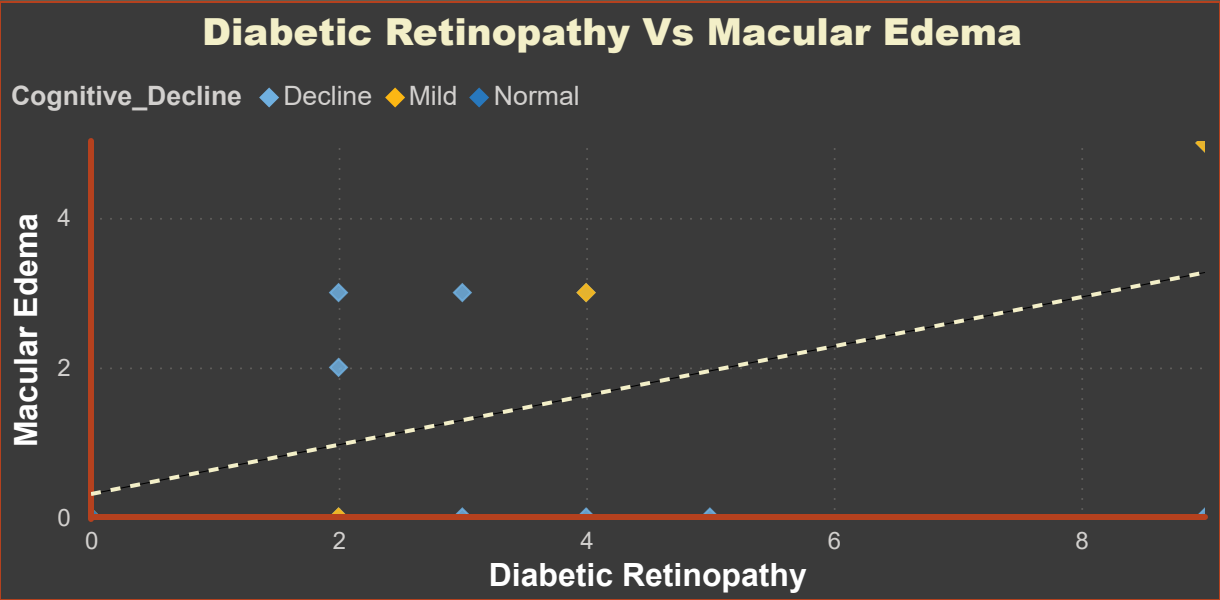
Macular Edema Vs Race



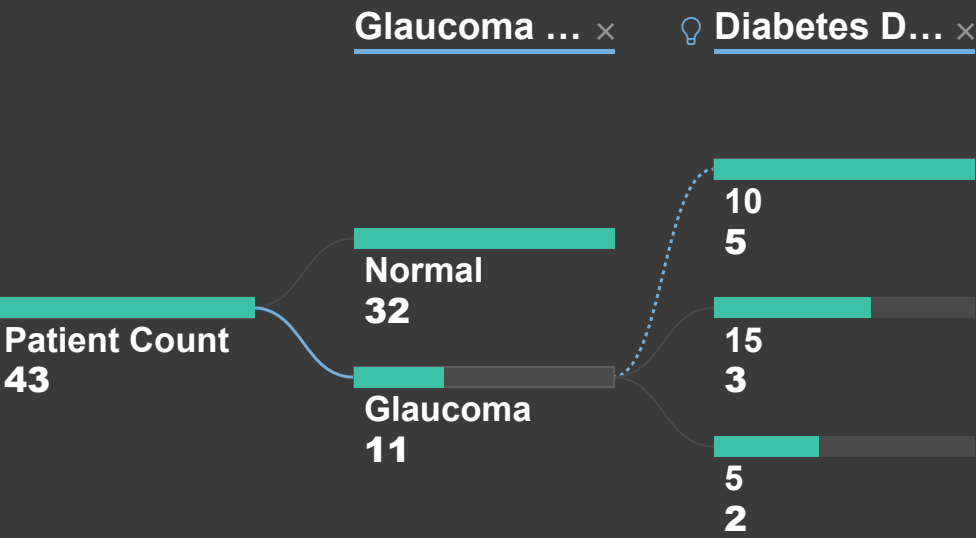
DIABETIC RETINOPATHY & MACULAR EDEMA

Progression of Diabetic Retinopathy b/w Visits				
PatientID	Visit	Diabetes Duration	Diabetic_Retinopathy	Cognitive_Decline
S0296	Visit 2	15	MILD NPDR	Decline
S0296	Visit 8	17	PDR	Decline
S0513	Visit 2	12	NORMAL	Decline
S0513	Visit 8	14	MILD NPDR	Decline
S0527	Visit 2	19	NORMAL	Decline
S0527	Visit 8	21	PDR	Decline
S0531	Visit 2	8	NORMAL	Decline
S0531	Visit 8	10	PDR	Decline
S0550	Visit 2	17	NORMAL	Decline
S0550	Visit 8	19	PDR	Decline
S0557	Visit 2	7	MILD NPDR	Decline

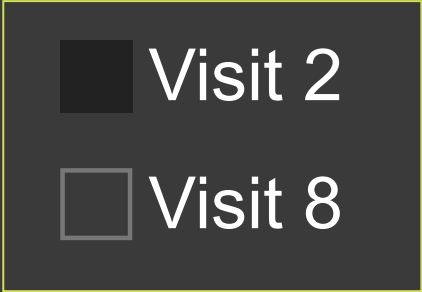
Progression of Macular Edema b/w Visits				
PatientID	Visit	Diabetes Duration	Macular Edema	Cognitive_Decline
S0296	Visit 2	15	HIGH ME	Decline
S0296	Visit 8	17	SEVERE	Decline
S0527	Visit 2	19	NORMAL	Decline
S0527	Visit 8	21	SEVERE	Decline
S0531	Visit 2	8	NORMAL	Decline
S0531	Visit 8	10	SEVERE	Decline
S0550	Visit 2	17	NORMAL	Decline
S0550	Visit 8	19	SEVERE	Decline
S0557	Visit 2	7	NORMAL	Decline
S0557	Visit 8	9	SEVERE	Decline
S0574	Visit 2	15	NORMAL	Decline



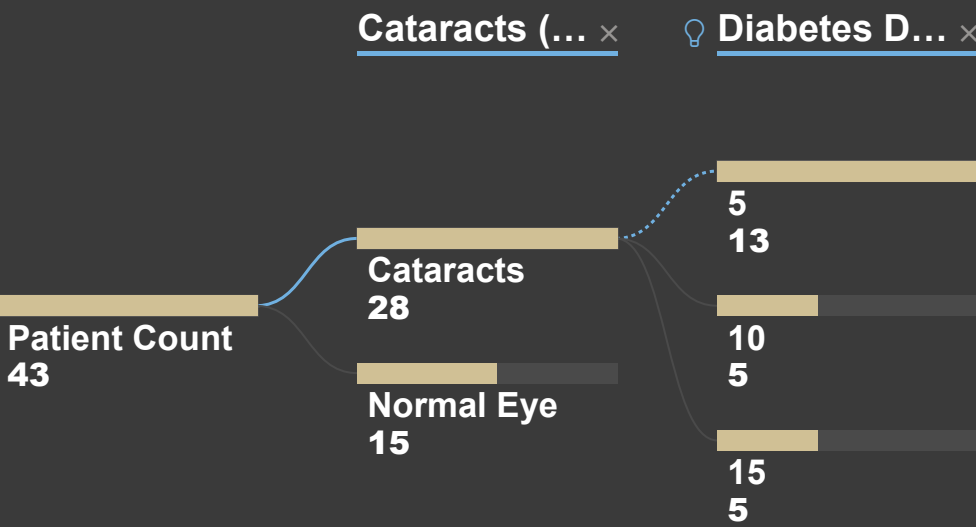
Glaucoma Vs Diabetes Duration



GLAUCOMA & CATARACTS



Cataracts Vs Diabetes Duration



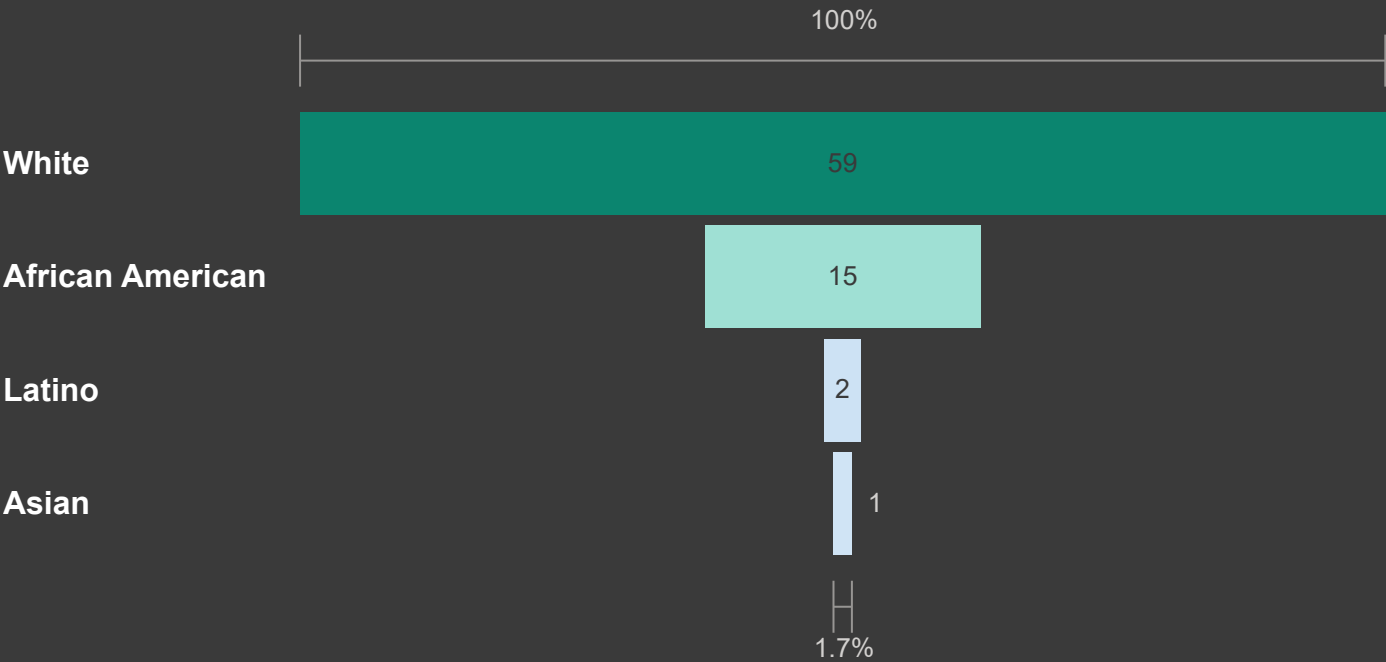
Glaucoma

Glaucoma is a group of eye diseases that can damage the optic nerve—the bundle of nerves that connects the eye to the brain. Diabetes doubles the chances of having glaucoma, which can lead to vision loss and blindness if not treated early.

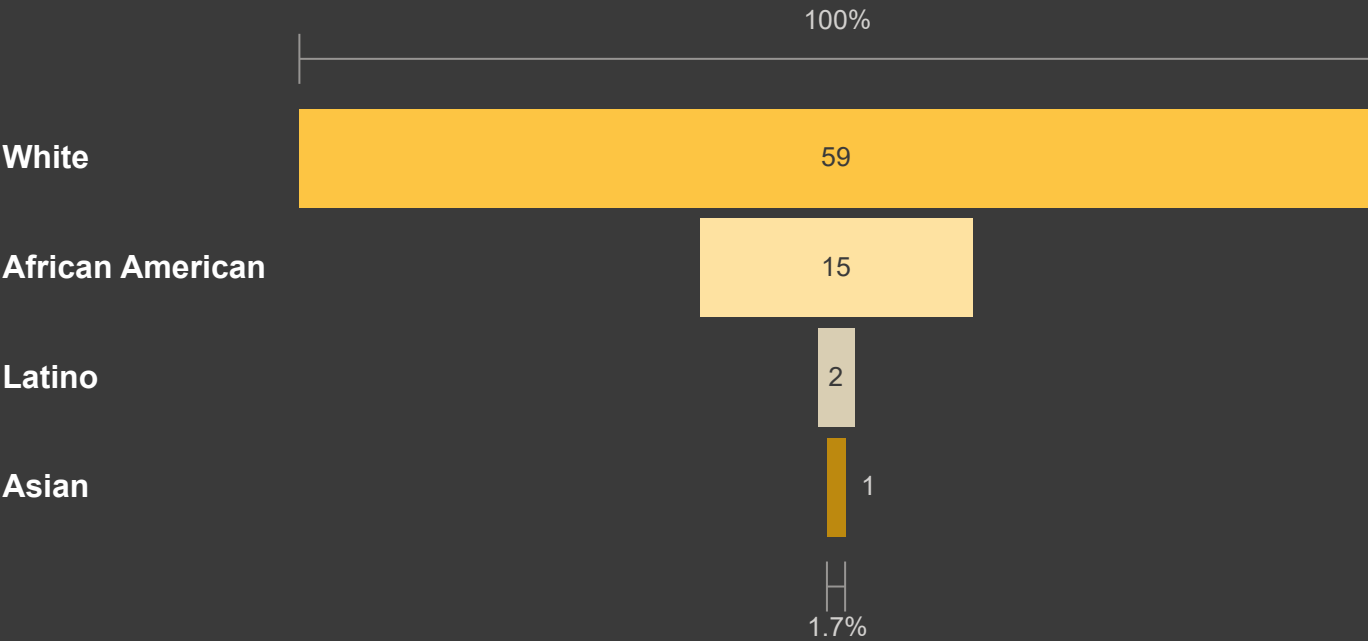
Cataract

As you age, the lenses of your eyes become less flexible, less transparent and thicker. When you have diabetes, high blood sugar (blood glucose) levels over time can lead to structural changes in the lens of the eye that can accelerate the development of cataracts.

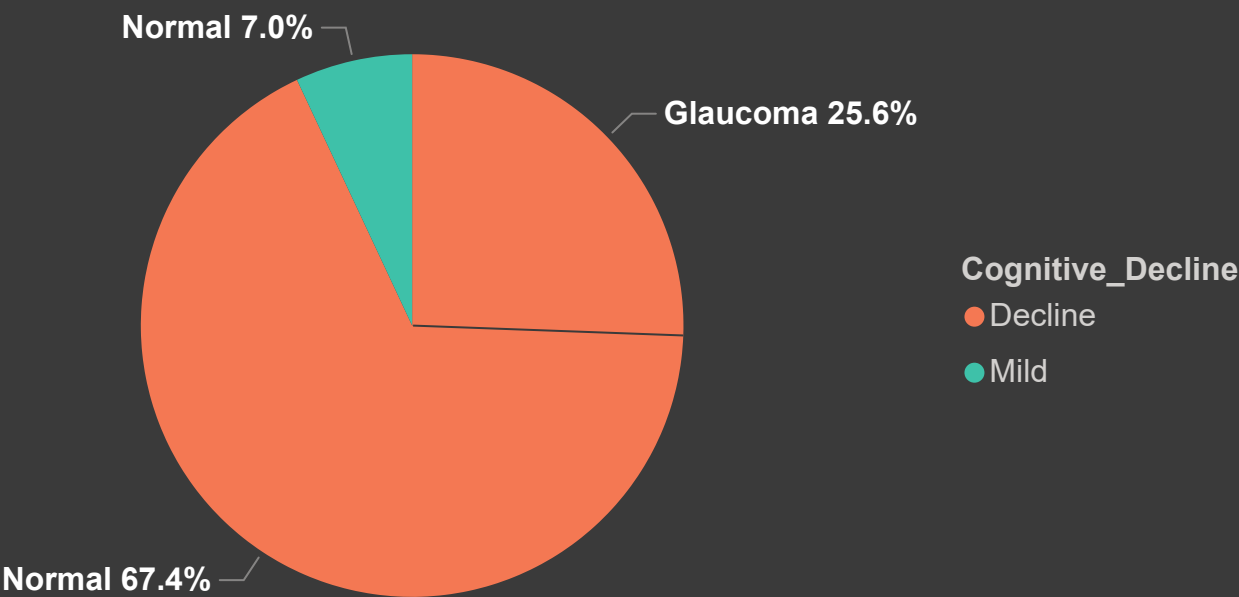
Patient Count by Race



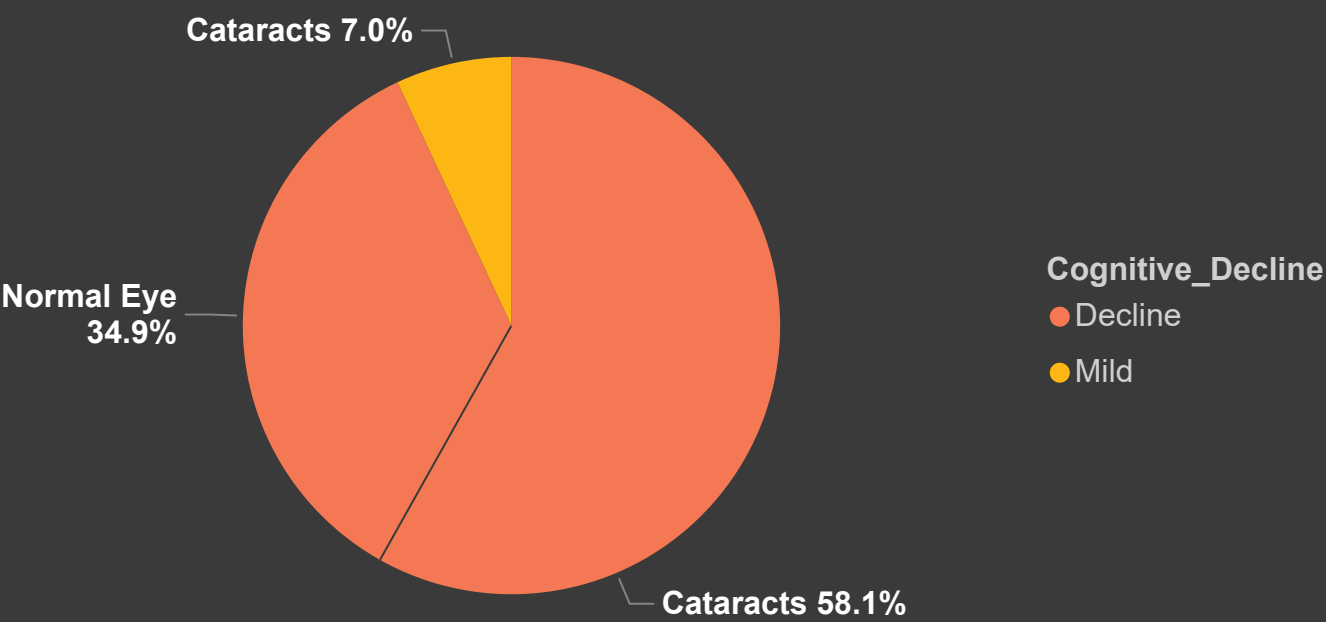
Patient Count by Race

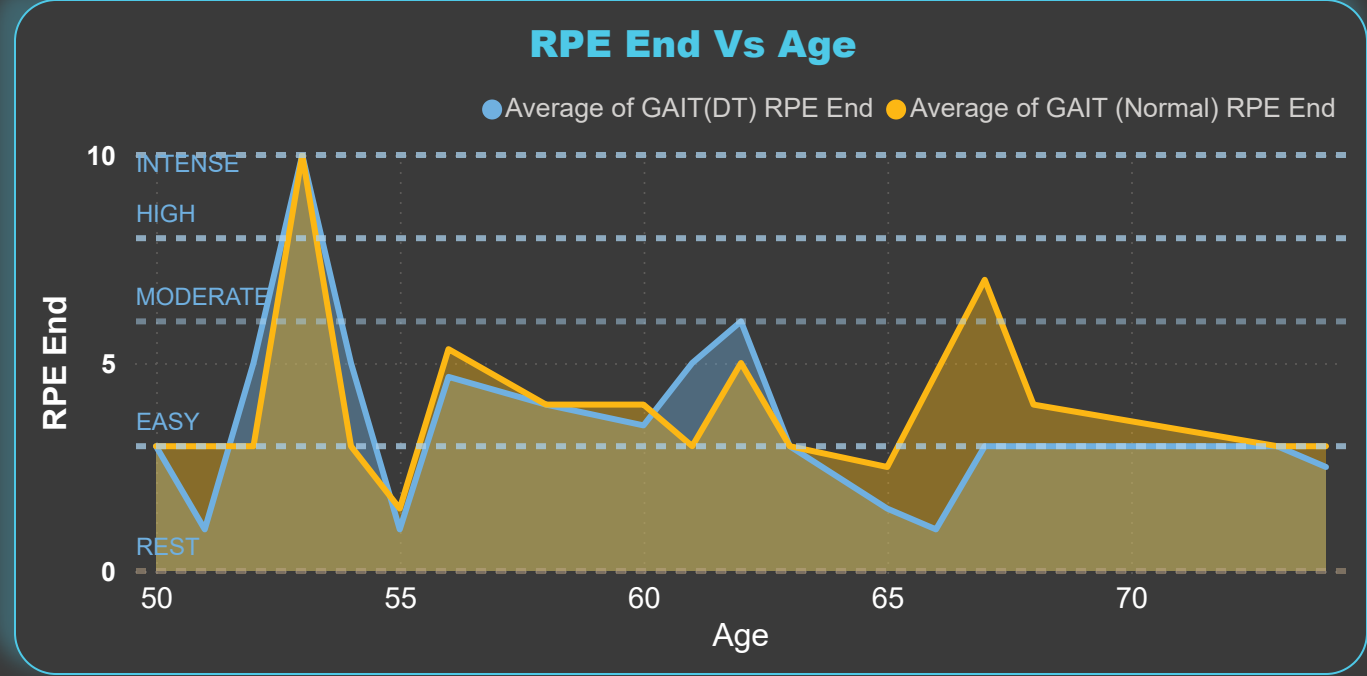


Cognitive_Stages by Glaucoma group



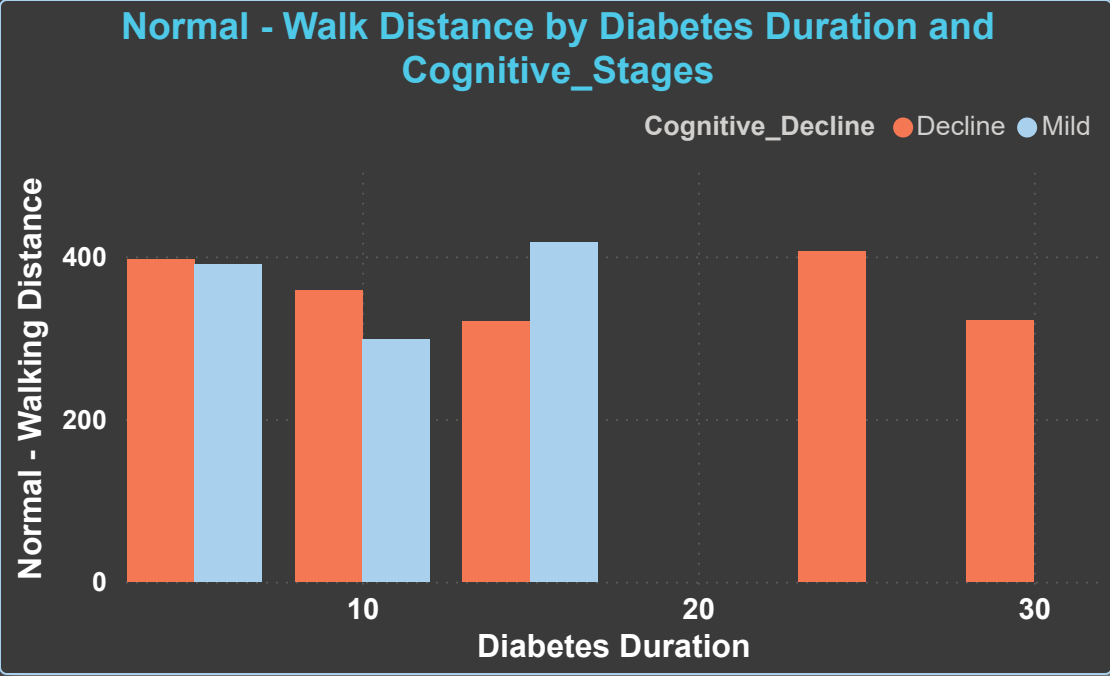
Cognitive_Stages by Cataracts group





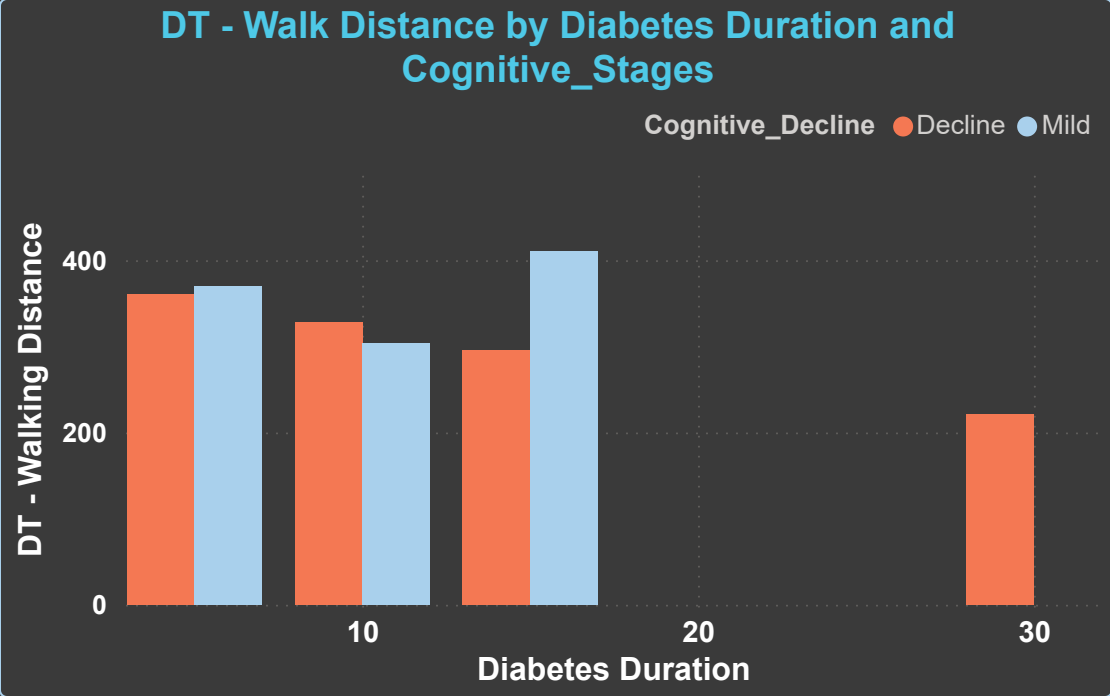
WALKING TEST

- CONTROL
- DM
- Normal B...
- Obese
- Overweight



Individuals with diabetes walk slower and with shorter step lengths, a longer stance phase, a wider base of support, greater step time variability on irregular surfaces, and improper pressure distribution at the foot compared with individuals without diabetes. The gait abnormalities of diabetic patients are 15 times more likely to report experiencing a fall related injury during walking.

PatientID	Visit	Age	Diabetes Duration	DT - RPE Start	DT - RPE End	Normal - RPE Start	Normal - RPE End	Cognitive_Decline
S0105	Visit 2	54	14	EASY	MODERATE	EASY	EASY	Decline
S0105	Visit 8	56	15	EASY	MODERATE	EASY	MODERATE	Mild
S0301	Visit 2	65	30	EASY	EASY	EASY	EASY	Decline
S0301	Visit 8	67	32	MODERATE	EASY	EASY	HARD	Decline
S0318	Visit 2	51	6	EASY	EASY	(Blank)	EASY	Mild
S0318	Visit 8	53	8	MODERATE	INTENSE	HARD	INTENSE	Decline
S0513	Visit 2	61	12	(Blank)	MODERATE	(Blank)	EASY	Decline
S0513	Visit 8	63	14	EASY	EASY	(Blank)	EASY	Decline
S0550	Visit 2	50	17	(Blank)	MODERATE	(Blank)	EASY	Decline
S0550	Visit 8	52	19	EASY	MODERATE	EASY	EASY	Decline
S0574	Visit 8	56	17	MODERATE	EASY	EASY	HARD	Decline

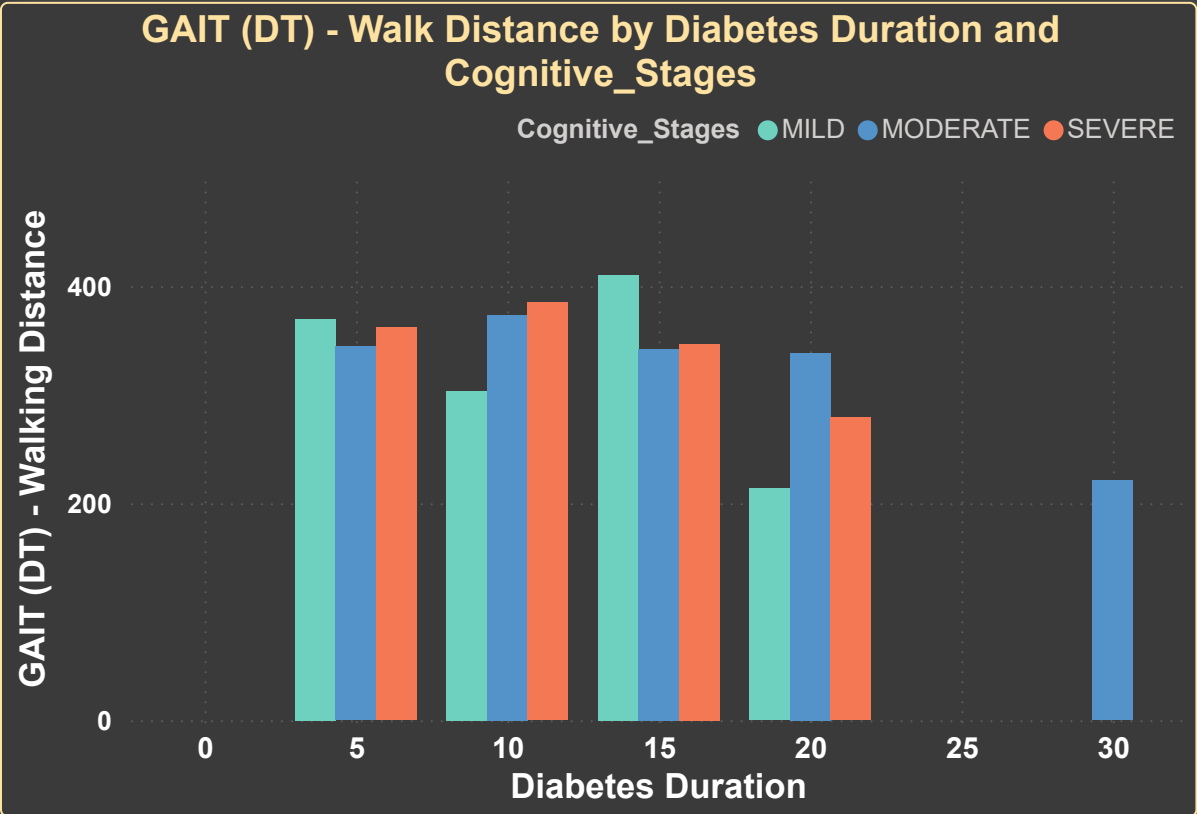
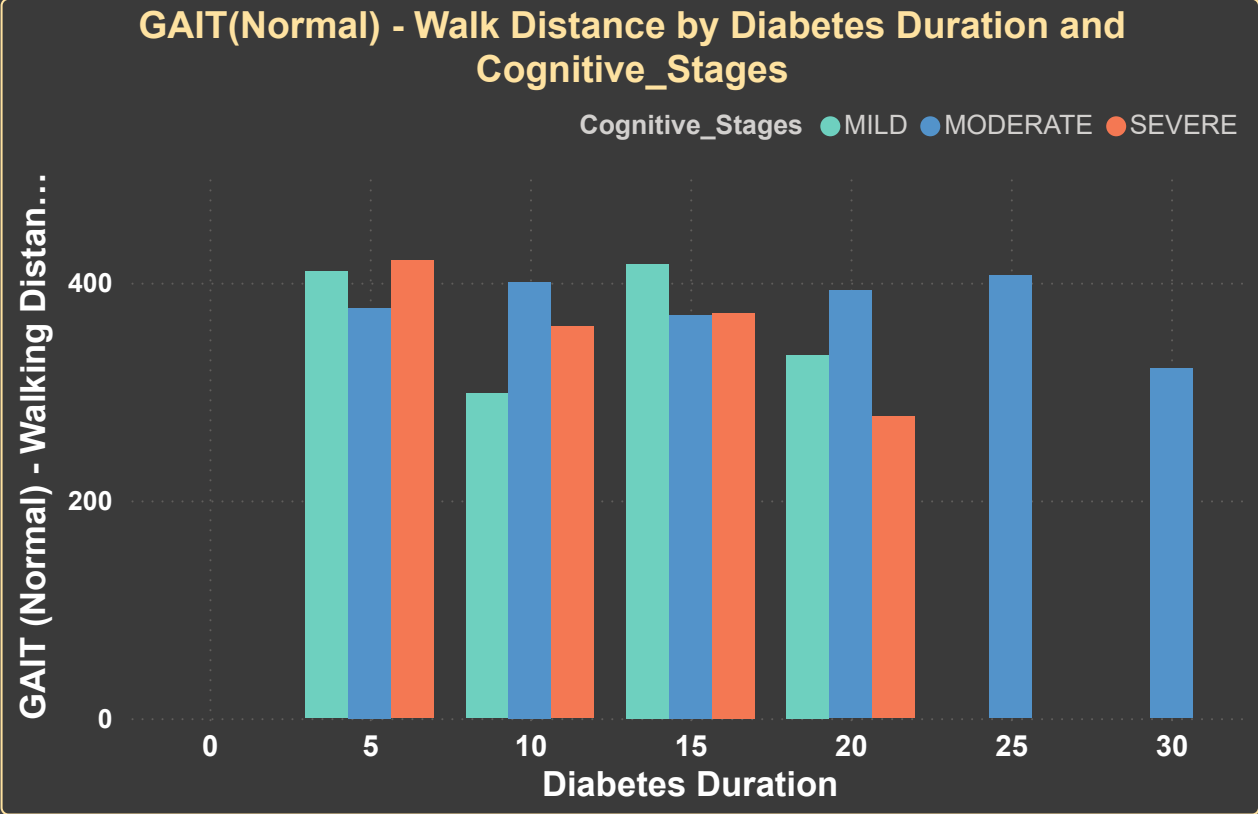


Cognitive Impairment - Walking Test

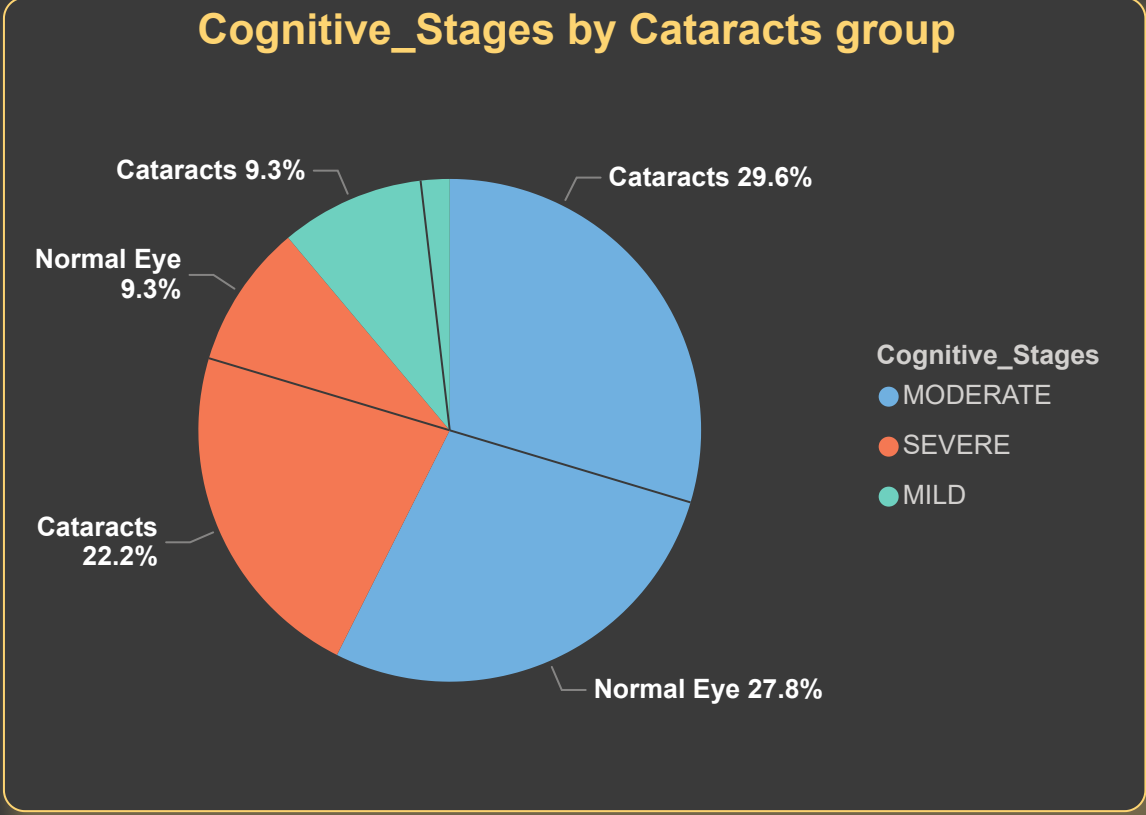
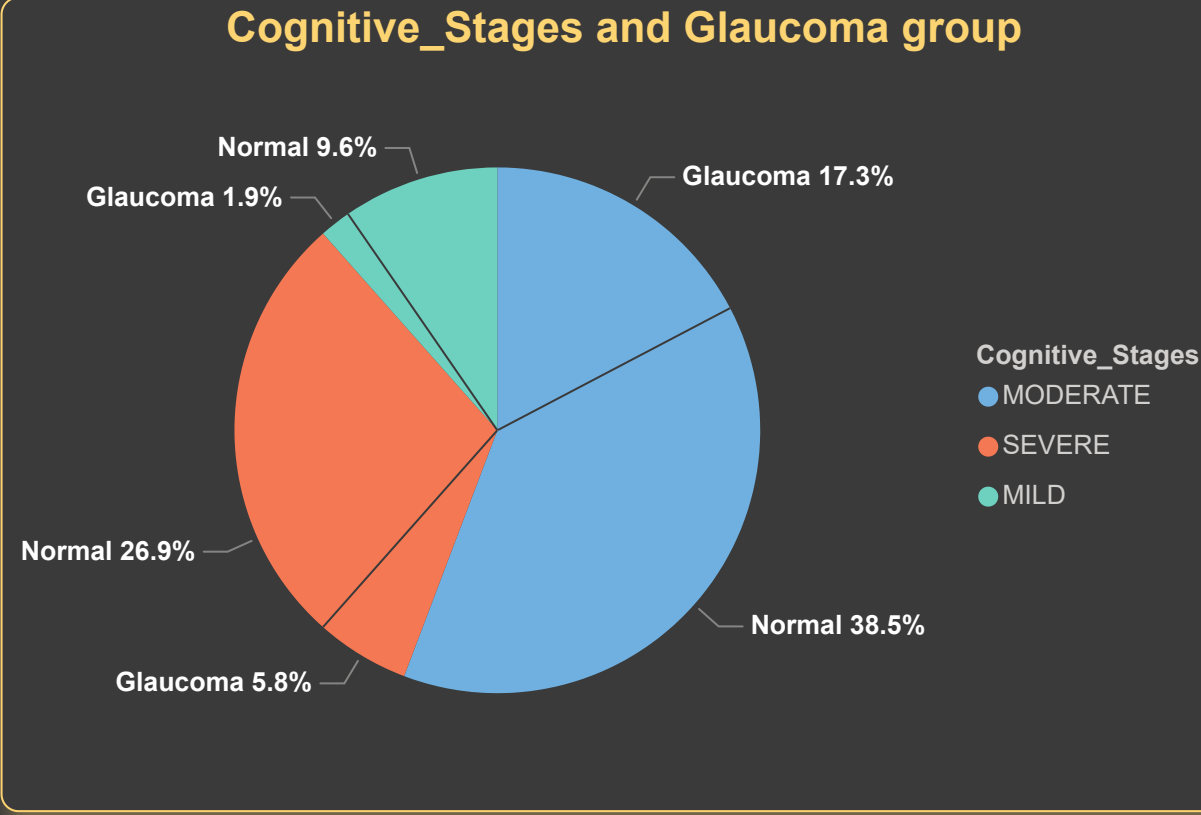
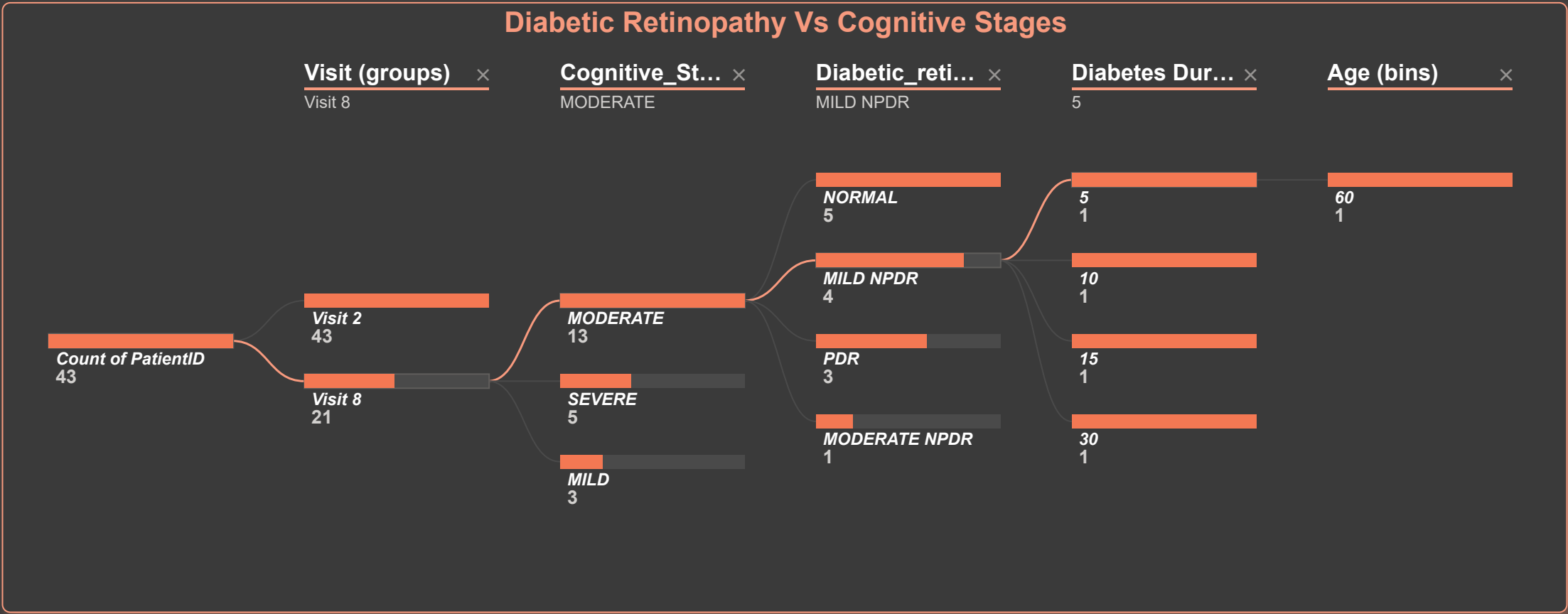
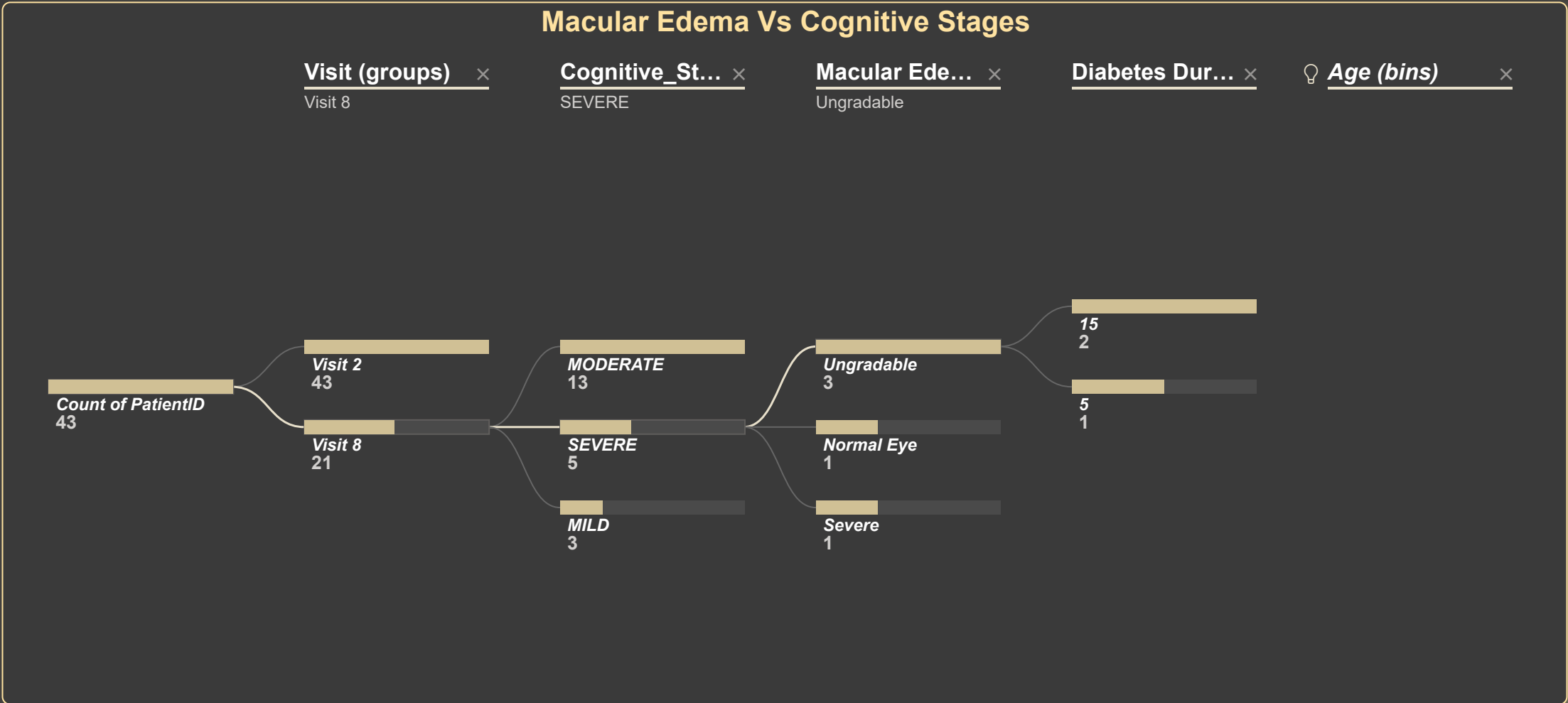
Group

CONTROL

DM



Cognitive Impairment - Ophthalmology

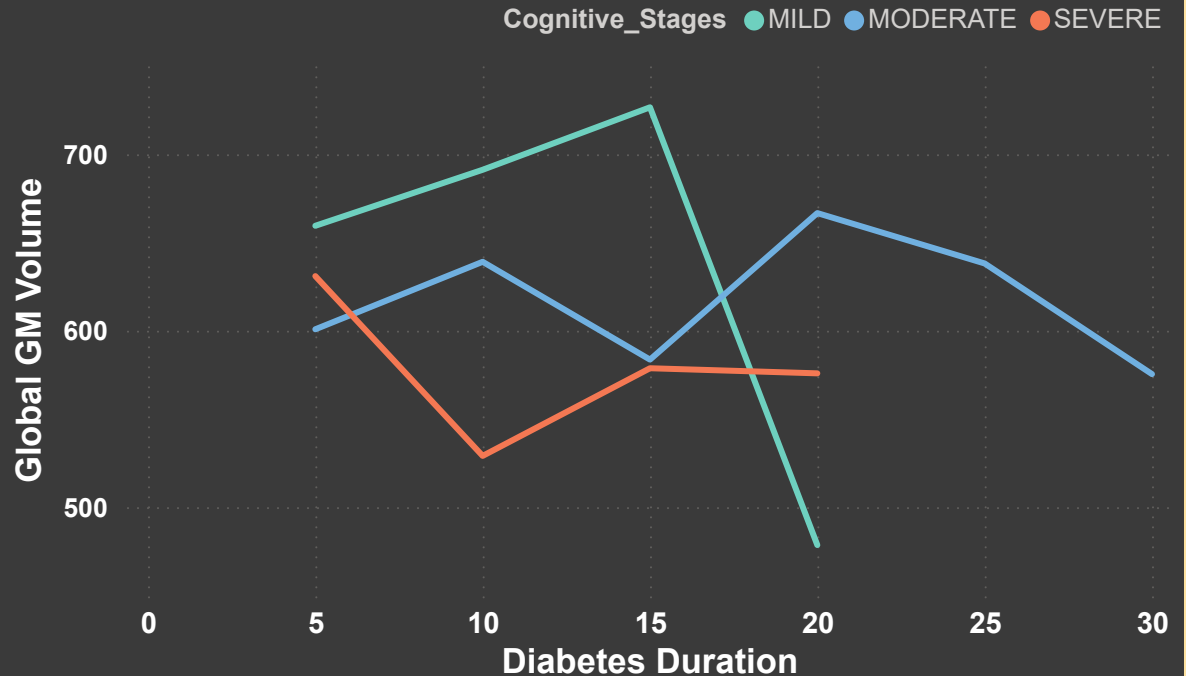
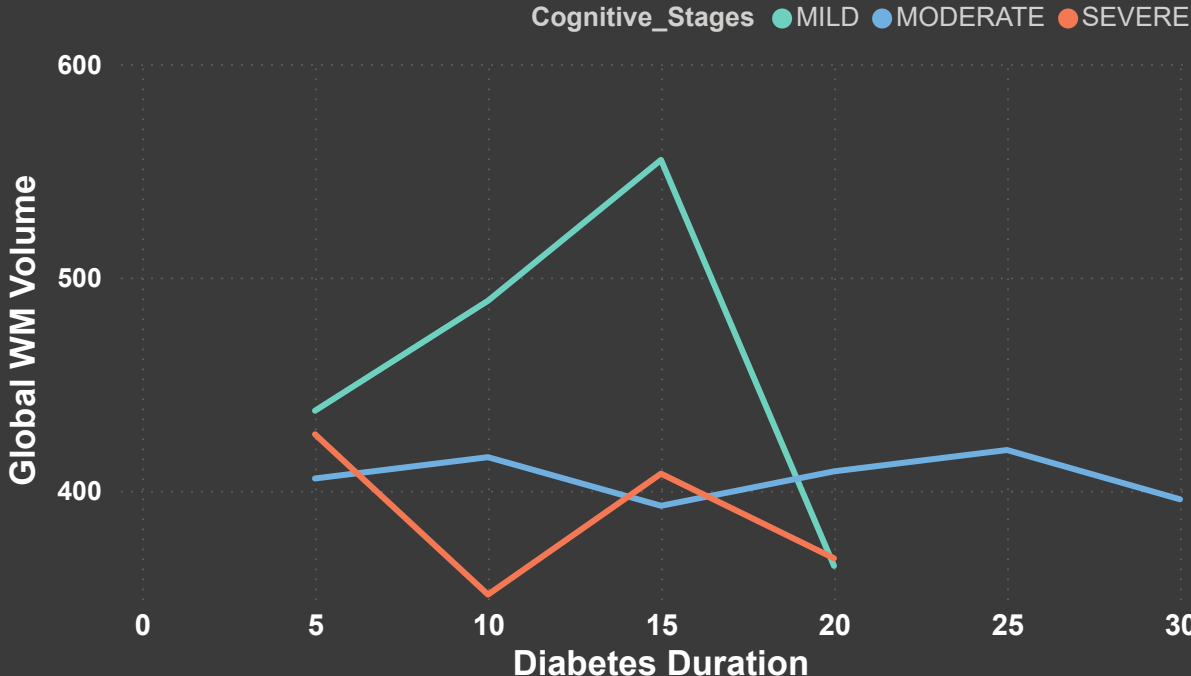


Cognitive Impairment - MRI

Group

☐ CONTROL

DM



Brain Matter Vs Cognitive Stages

▲	PatientID	Visit	Diabetes Duration	Global GM Volume	Global WM Volume	Global CSF Volume	Cognitive_Stages
	S0105	8	15	726.59	555.05	983.45	MILD
	S0105	2	10	684.73	593.75	461.20	MODERATE
	S0264	2	10	611.18	349.68	560.95	MODERATE
	S0292	2	5	636.57	414.36	389.51	MILD
	S0296	8	15	626.46	380.34	661.46	SEVERE
	S0296	2	15	597.62	402.29	674.22	SEVERE
	S0301	2	30	483.49	338.70	292.46	MODERATE
	S0301	8	30	524.53	346.39	653.36	MODERATE
	S0308	2		560.90	382.46	430.18	MODERATE
	S0314	8	5	582.18	394.86	787.95	MODERATE
	S0314	2	5	574.67	397.48	862.76	MODERATE
	S0318	8	5	606.80	393.34	710.15	SEVERE
Total							