## one\_way\_anova

(2.6423095847201137, 0.07144947915880548)

## t\_test

t\_statistic p\_value  
pre\_diabetes vs no\_diabetes -2.274008 0.023093  
diabetes vs no\_diabetes 0.217763 0.827638

## tukey\_hsd

Multiple Comparison of Means - Tukey HSD, FWER=0.05   
==============================================================  
 group1 group2 meandiff p-adj lower upper reject  
--------------------------------------------------------------  
 diabetes no\_diabetes -0.0025 0.9723 -0.029 0.0239 False  
 diabetes pre\_diabetes -0.0387 0.0926 -0.0822 0.0048 False  
no\_diabetes pre\_diabetes -0.0362 0.0641 -0.0739 0.0016 False  
--------------------------------------------------------------

## covariance\_analysis

sum\_sq df F PR(>F)  
C(no\_diabetes) 0.236239 1.0 7.193925 0.007376  
C(pre\_diabetes) 0.098944 1.0 3.013029 0.082755  
C(diabetes) 0.091987 1.0 2.801175 0.094354  
Age 0.018570 1.0 0.565482 0.452150  
Residual 64.528091 1965.0 NaN NaN

## interaction\_analysis

sum\_sq df F PR(>F)  
C(no\_diabetes) 0.152267 1.0 4.638151 0.031390  
C(pre\_diabetes) 0.000318 1.0 0.009682 0.921629  
C(diabetes) 0.091987 1.0 2.801989 0.094307  
Age 0.018570 1.0 0.565647 0.452084  
C(diabetes):Age 0.051569 1.0 1.570829 0.210236  
Residual 64.476522 1964.0 NaN NaN

## interaction\_analysis2

dfn dfd F PR(>F)  
diabetes 1.0 1827.0 5.204662 0.022641  
pre\_diabetes 1.0 1837.0 0.142634 0.705720

## chi\_square\_test

condition chi2 p\_value dof  
0 no\_diabetes 0.662069 0.415830 1  
1 pre\_diabetes 4.173600 0.041058 1  
2 diabetes 0.105453 0.745381 1

## relative\_risk\_analysis

condition relative\_risk ci p\_value  
0 no\_diabetes 0.037517 0.028663 1.431133e-126  
1 pre\_diabetes 0.000000 0.000000 NaN  
2 diabetes 0.040268 0.022612 5.171448e-28

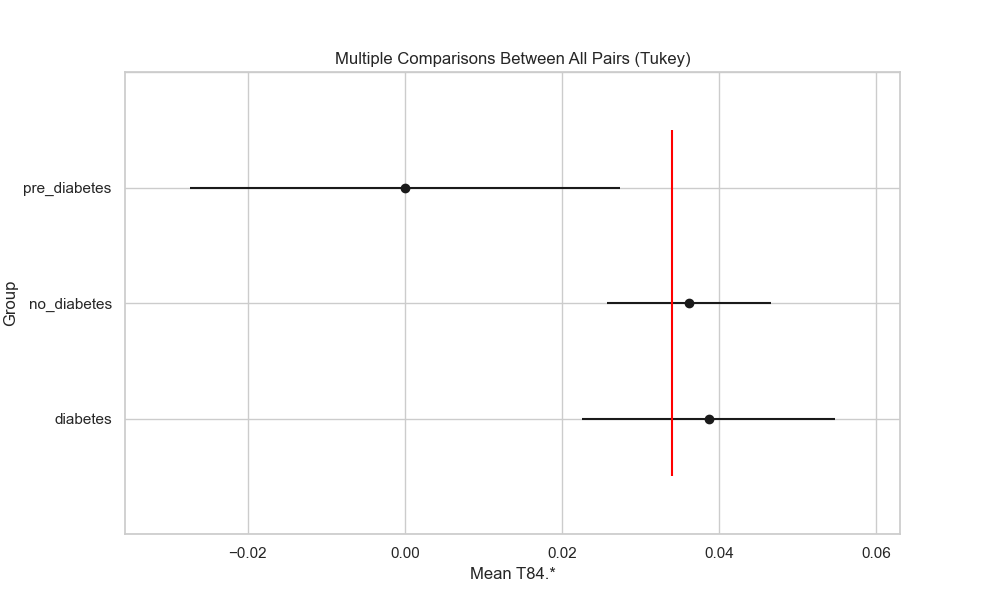
## odds\_ratio\_analysis

condition odds\_ratio ci p\_value  
0 no\_diabetes 0.733611 0.560476 0.377007  
1 pre\_diabetes inf NaN 0.012768  
2 diabetes 0.851517 0.478161 0.608907

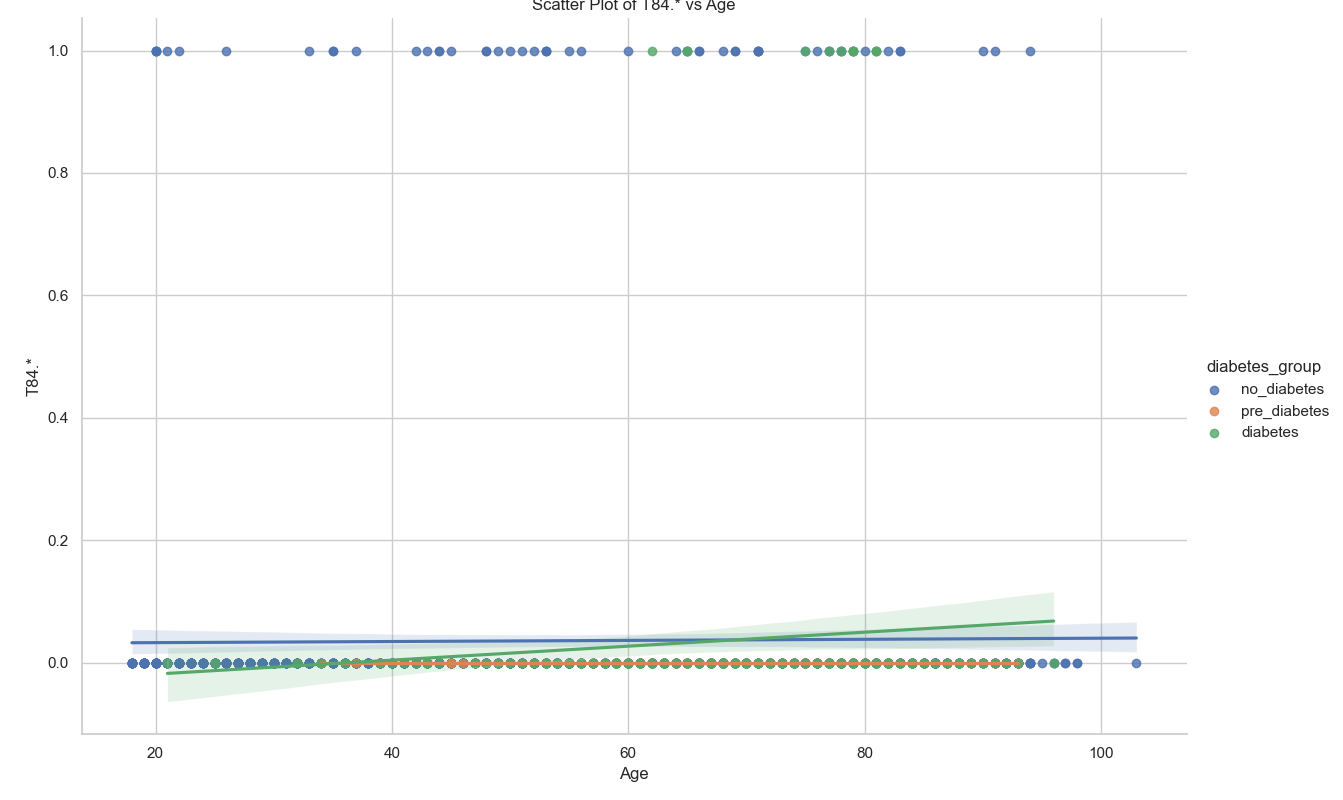
## relative\_risk\_by\_age

age\_group condition relative\_risk p\_value confidence\_interval  
6 18-40 No Diabetes 0.000000 1.000000 0.000000  
7 18-40 Pre-Diabetes inf 1.000000 NaN  
8 18-40 Diabetes inf 1.000000 NaN  
3 40-60 No Diabetes 0.000000 0.089191 0.000000  
4 40-60 Pre-Diabetes inf 0.615903 NaN  
5 40-60 Diabetes inf 0.397503 NaN  
0 60+ No Diabetes 0.861518 0.733185 0.586325  
1 60+ Pre-Diabetes inf 0.026774 NaN  
2 60+ Diabetes 0.693211 0.337155 0.388128

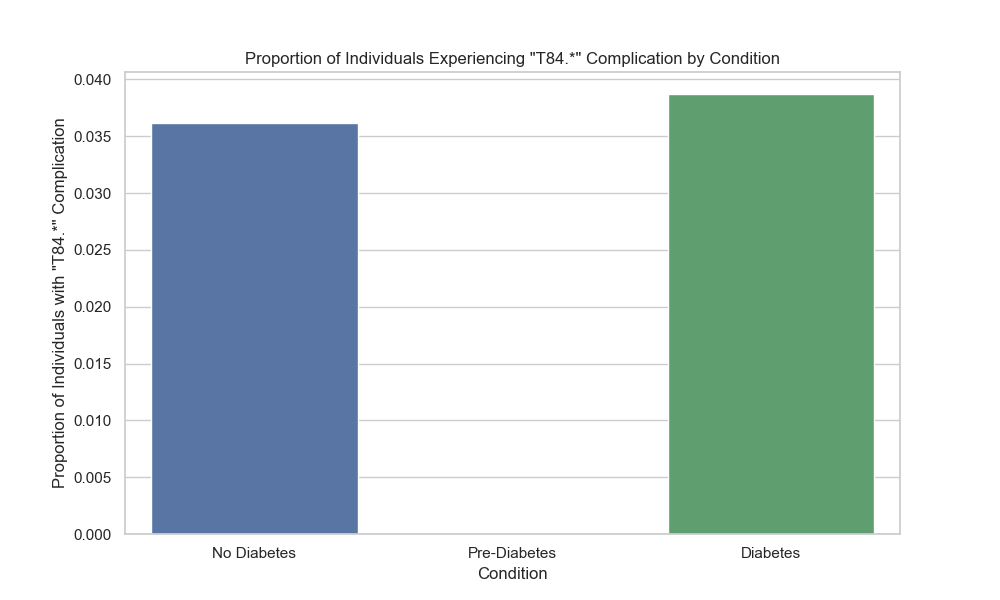
## visualize\_tukey\_results



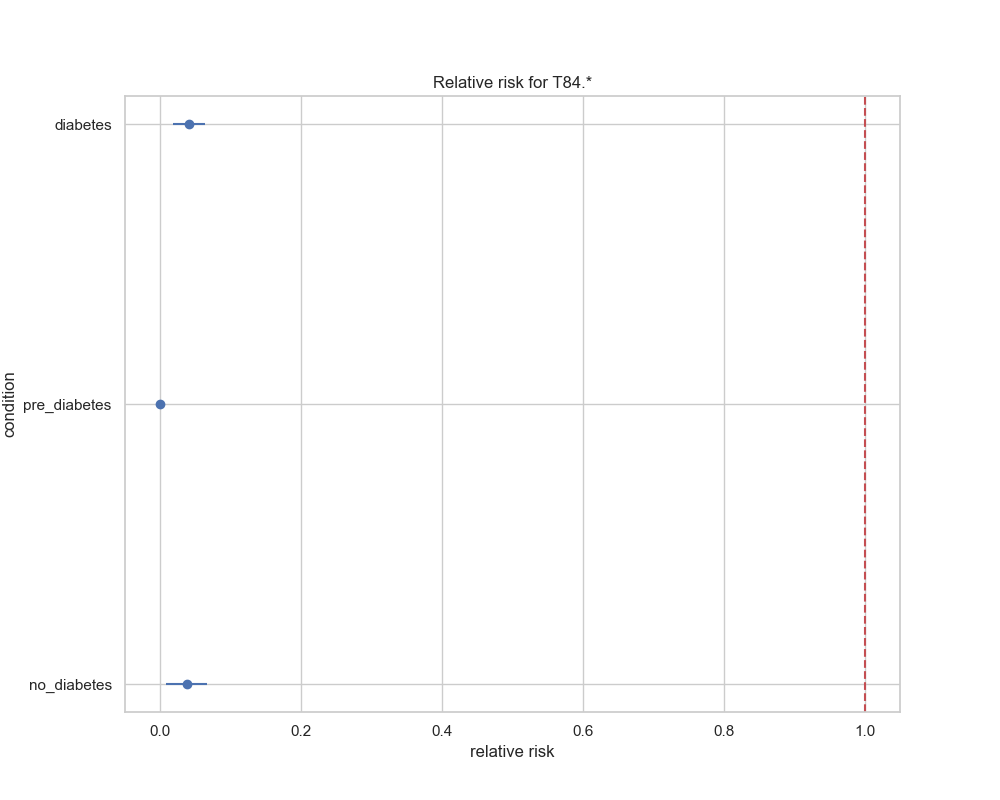
## plot\_interaction\_analysis



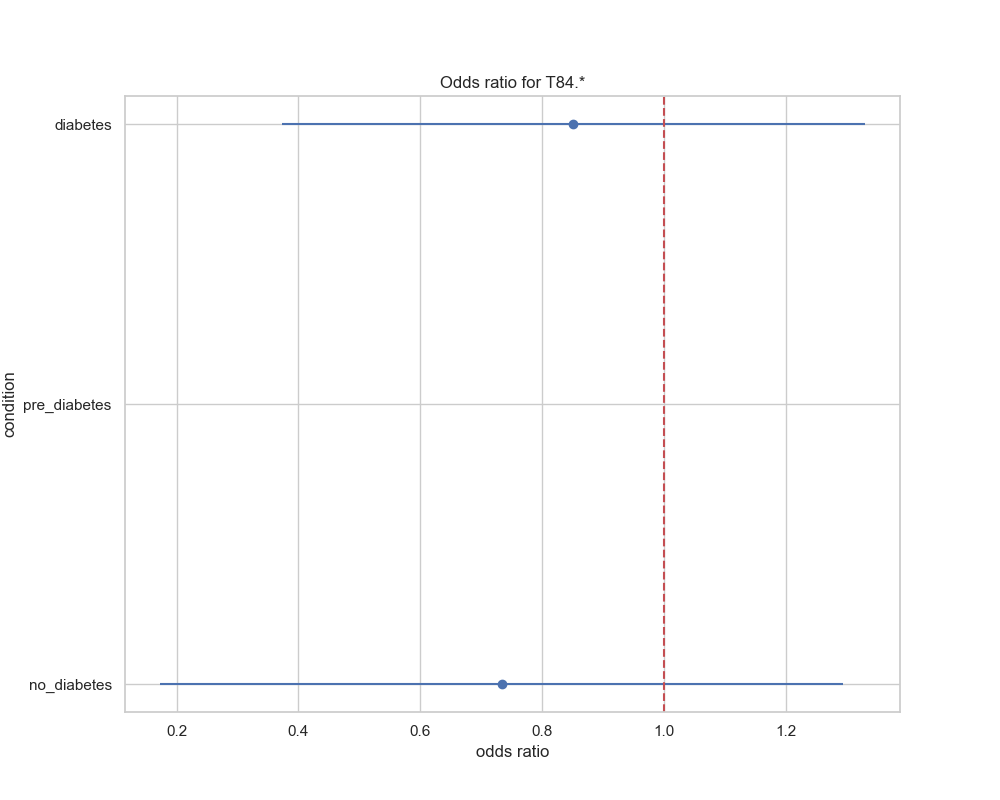
## visualize\_chi\_square\_results



## visualize\_relative\_risk\_results



## visualize\_odds\_ratio\_results



## visualize\_relative\_risk\_by\_age\_results

