## one\_way\_anova

(1.2641029604024447, 0.2827220948316846)

## t\_test

t\_statistic p\_value  
pre\_diabetes vs no\_diabetes -1.171685 0.241492  
diabetes vs no\_diabetes 0.967288 0.333528

## tukey\_hsd

Multiple Comparison of Means - Tukey HSD, FWER=0.05   
==============================================================  
 group1 group2 meandiff p-adj lower upper reject  
--------------------------------------------------------------  
 diabetes no\_diabetes -0.0063 0.5751 -0.0209 0.0084 False  
 diabetes pre\_diabetes -0.0161 0.2582 -0.0402 0.0079 False  
no\_diabetes pre\_diabetes -0.0099 0.5104 -0.0308 0.011 False  
--------------------------------------------------------------

## covariance\_analysis

sum\_sq df F PR(>F)  
C(no\_diabetes) 0.001970 1.0 0.196247 0.657816  
C(pre\_diabetes) 0.027088 1.0 2.697901 0.100640  
C(diabetes) 0.006526 1.0 0.649921 0.420239  
Age 0.041906 1.0 4.173665 0.041190  
Residual 19.729520 1965.0 NaN NaN

## interaction\_analysis

sum\_sq df F PR(>F)  
C(no\_diabetes) 0.000191 1.0 0.018997 0.890388  
C(pre\_diabetes) 0.010922 1.0 1.087283 0.297202  
C(diabetes) 0.006526 1.0 0.649590 0.420357  
Age 0.041906 1.0 4.171543 0.041242  
C(diabetes):Age 0.000007 1.0 0.000745 0.978230  
Residual 19.729513 1964.0 NaN NaN

## interaction\_analysis2

dfn dfd F PR(>F)  
diabetes 1.0 1827.0 2.917099 0.087815  
pre\_diabetes 1.0 1837.0 0.000051 0.994281

## chi\_square\_test

condition chi2 p\_value dof  
0 no\_diabetes 0.000000 1.000000 1  
1 pre\_diabetes 0.630199 0.427282 1  
2 diabetes 0.695220 0.404394 1

## relative\_risk\_analysis

condition relative\_risk ci p\_value  
0 no\_diabetes 0.009960 0.005990 6.840429e-71  
1 pre\_diabetes 0.000000 0.000000 NaN  
2 diabetes 0.016393 0.006775 3.834600e-20

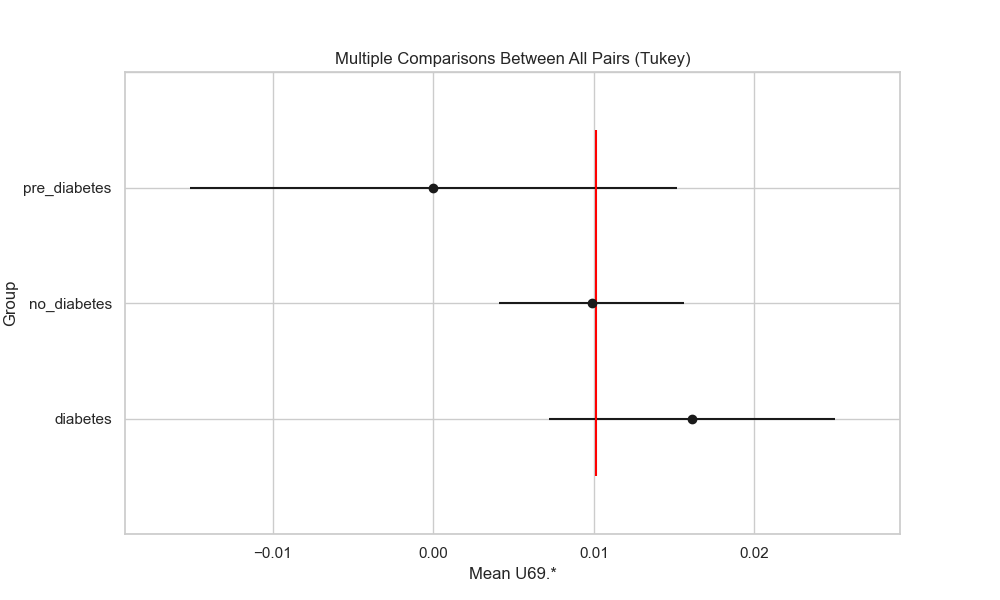
## odds\_ratio\_analysis

condition odds\_ratio ci p\_value  
0 no\_diabetes 1.133183 0.681442 0.790399  
1 pre\_diabetes inf NaN 0.392685  
2 diabetes 0.556569 0.230008 0.227470

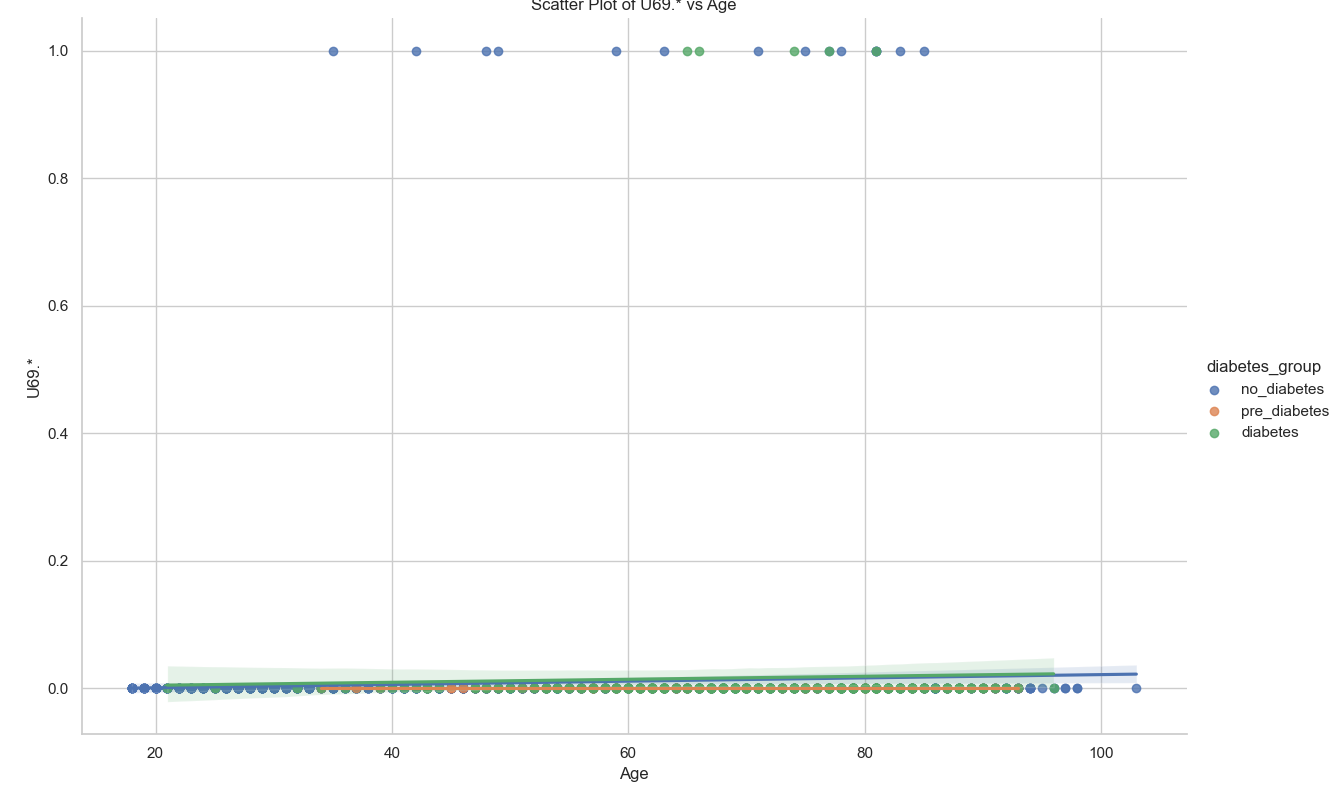
## relative\_risk\_by\_age

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 1.000000 0.000000  
4 40-60 Pre-Diabetes inf 1.000000 NaN  
5 40-60 Diabetes inf 1.000000 NaN  
0 60+ No Diabetes 0.974138 1.000000 0.521758  
1 60+ Pre-Diabetes inf 0.386931 NaN  
2 60+ Diabetes 0.620690 0.368715 0.256041

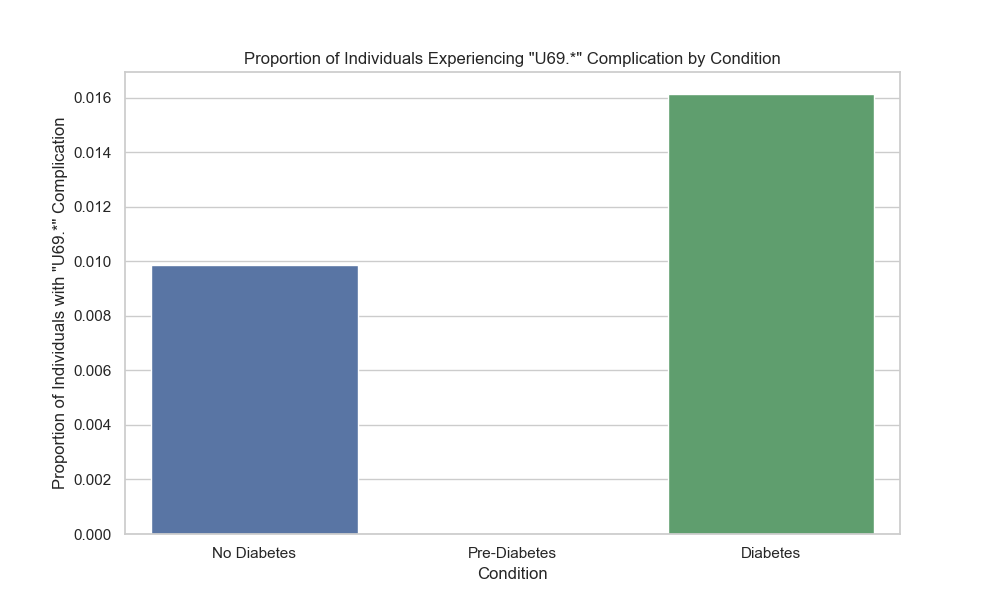
## visualize\_tukey\_results



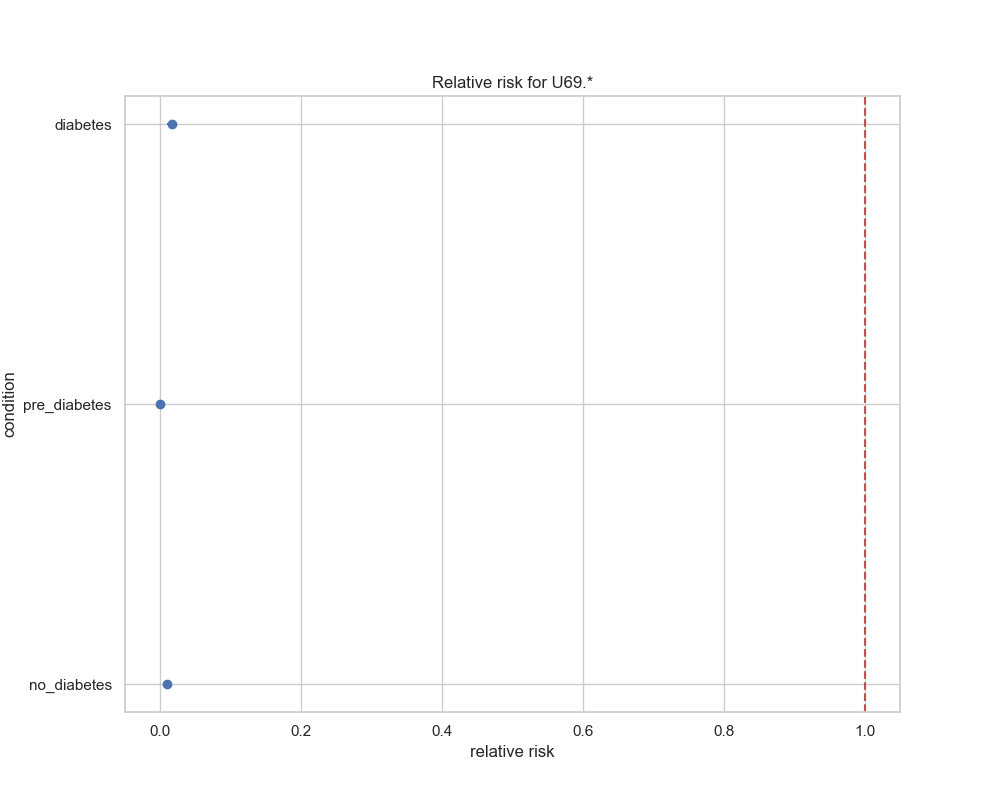
## plot\_interaction\_analysis



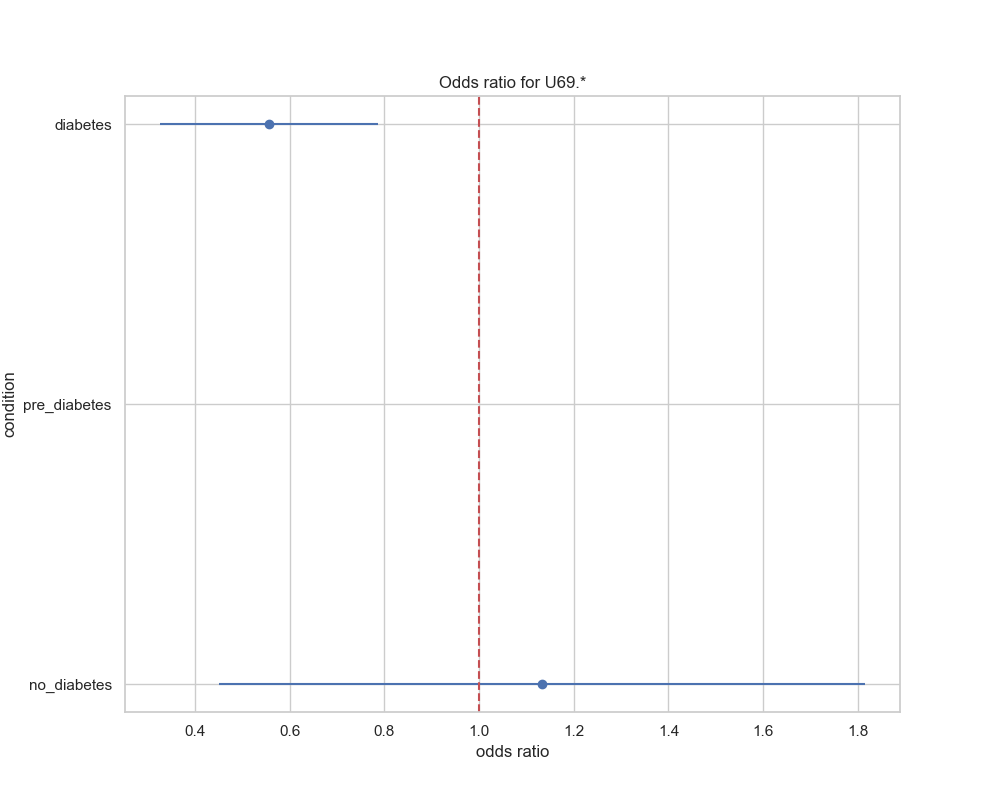
## visualize\_chi\_square\_results



## visualize\_relative\_risk\_results



## visualize\_odds\_ratio\_results



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

