Race and Age vs. NMU

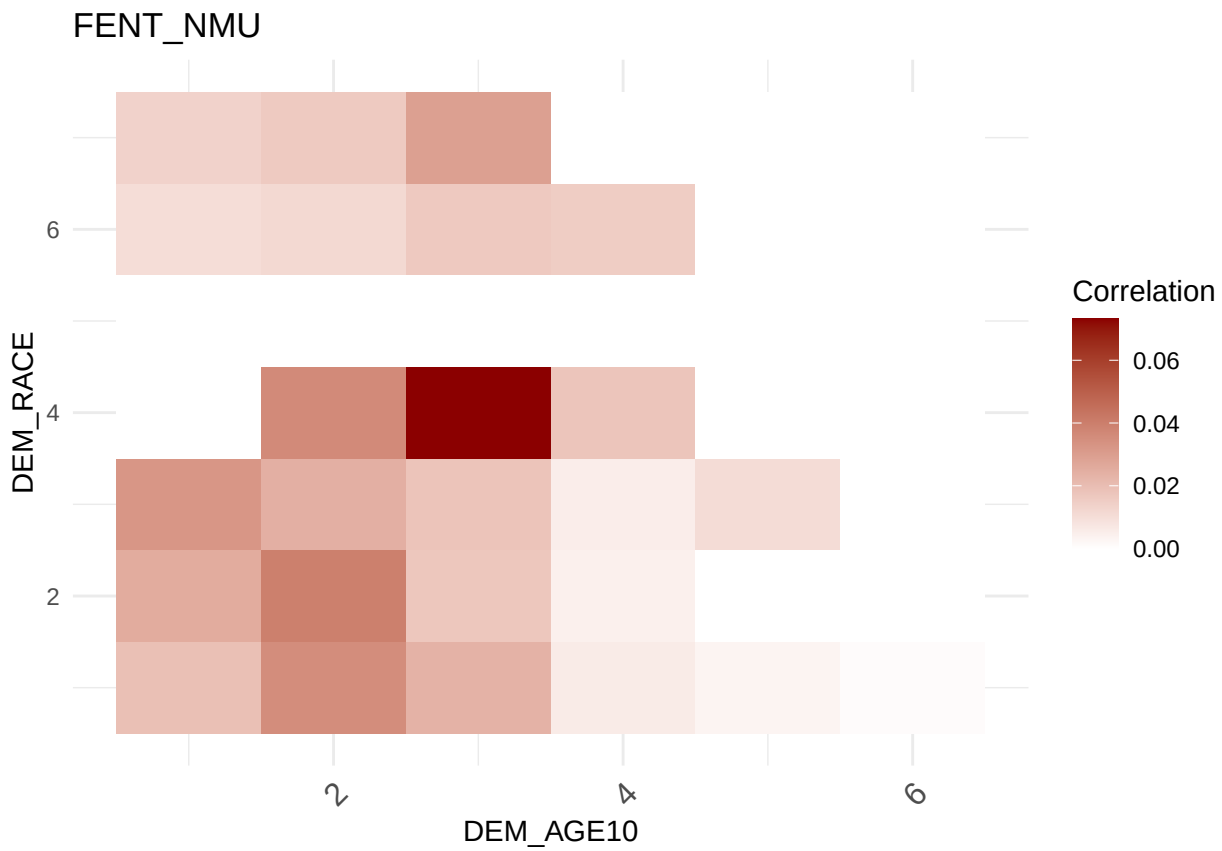
```
source("two_var_relationship.R")
```

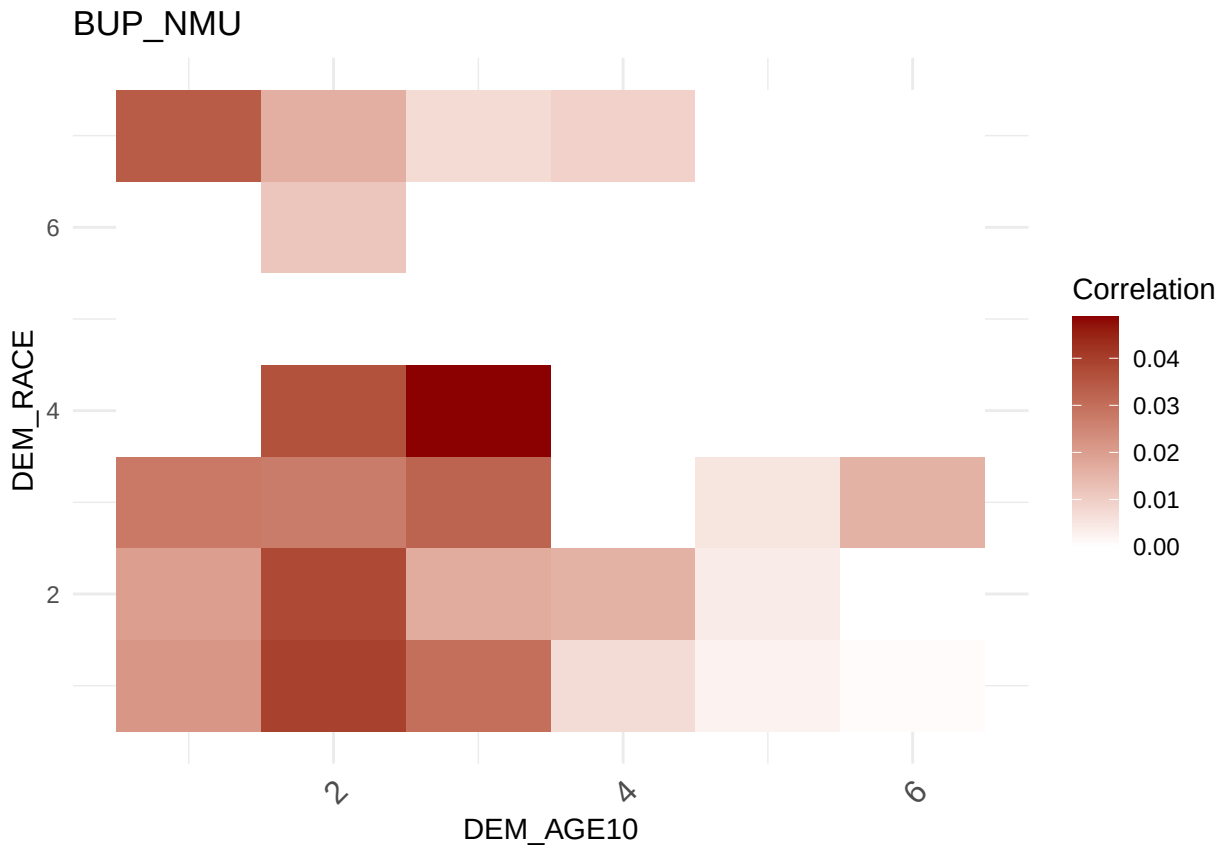
```
## -- Attaching packages --------------------------------------- tidyverse 1.3.1 --

## v ggplot2 3.3.3     v purrr   0.3.4
## v tibble  3.1.1     v dplyr   1.0.5
## v tidyr   1.1.3     v stringr 1.4.0
## v readr   1.4.0     v forcats 0.5.1

## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

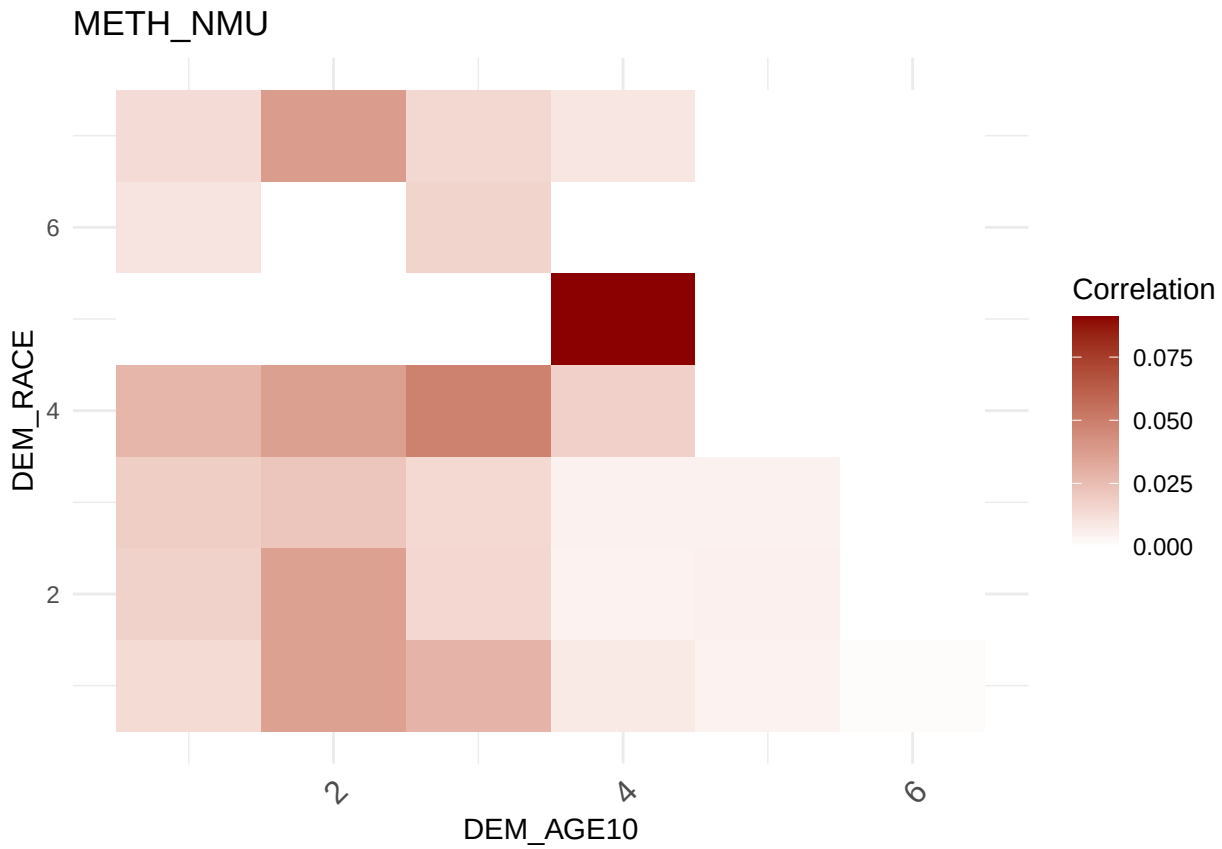
```
race_age <- two_var_relationship("DEM_AGE10", "DEM_RACE")
```

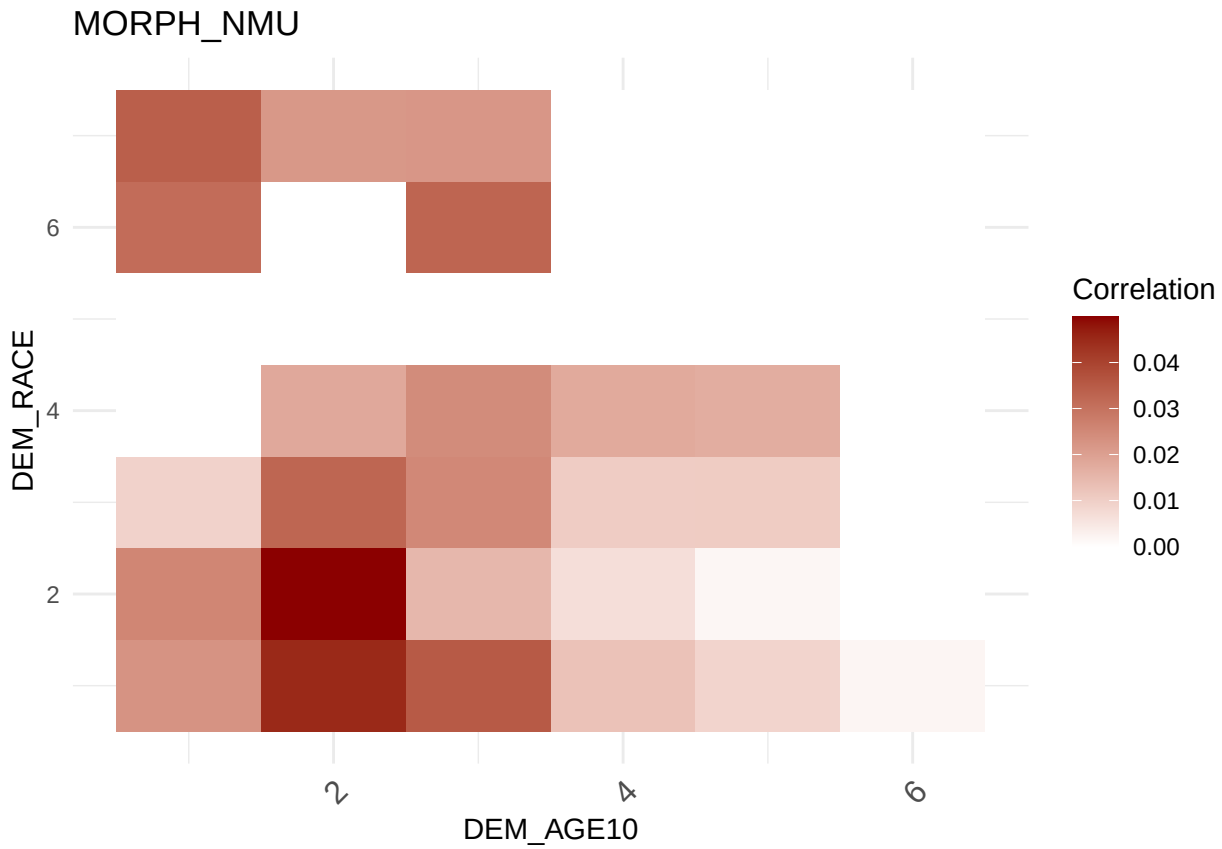
```
## `summarise()` has grouped output by 'var1'. You can override using the `.groups` argument.
```

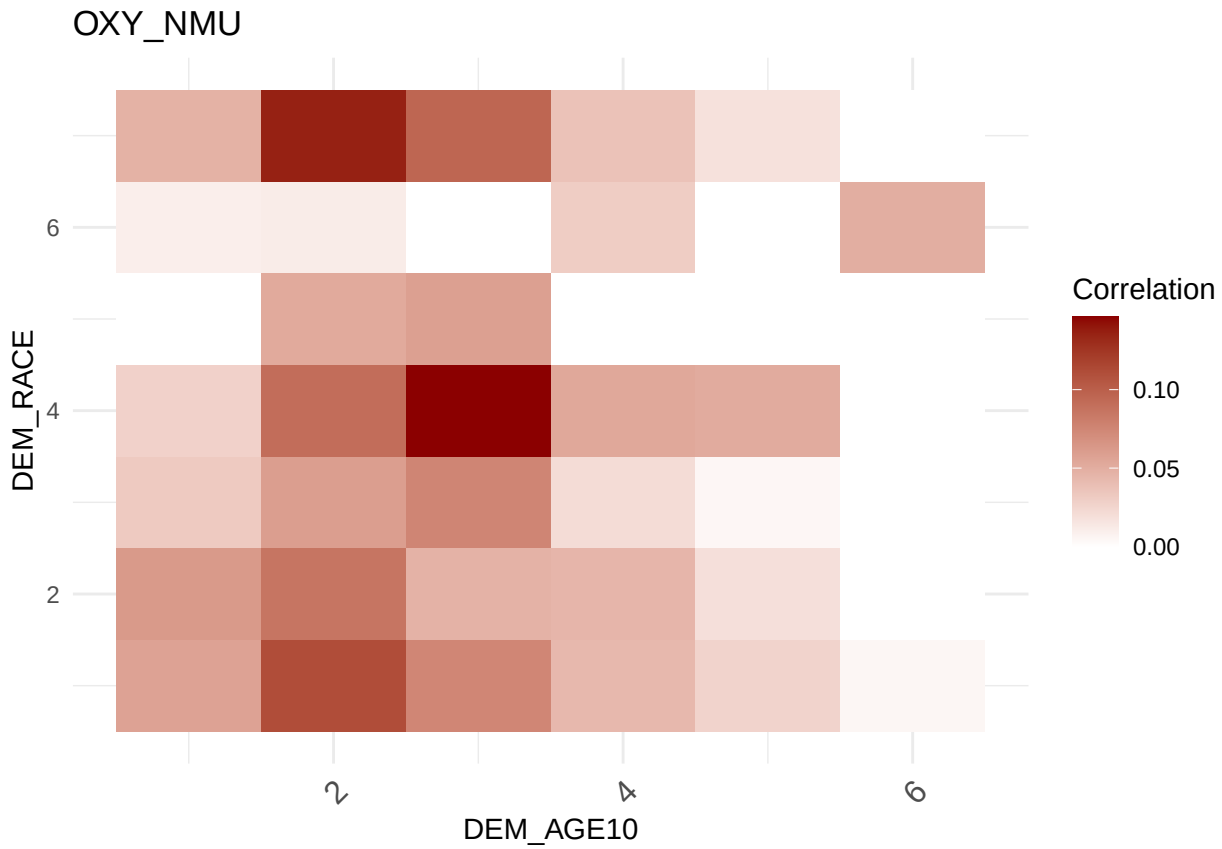
```
for (i in seq_along(race_age)) {
  cor_heatmap <- ggplot(data = race_age[[i]], aes(x = DEM_AGE10, y = DEM_RACE, fill = NMU)) +
    geom_tile()
  cor_heatmap <- cor_heatmap +
    scale_fill_gradient2(low = "white", high = "darkred", space = "Lab", name="Correlation") +
    theme_minimal() +
    theme(axis.text.x = element_text(angle = 45, vjust = 1, size = 12, hjust = 1)) +
    ggtitle(names(race_age)[i])
  print(cor_heatmap)
}
```

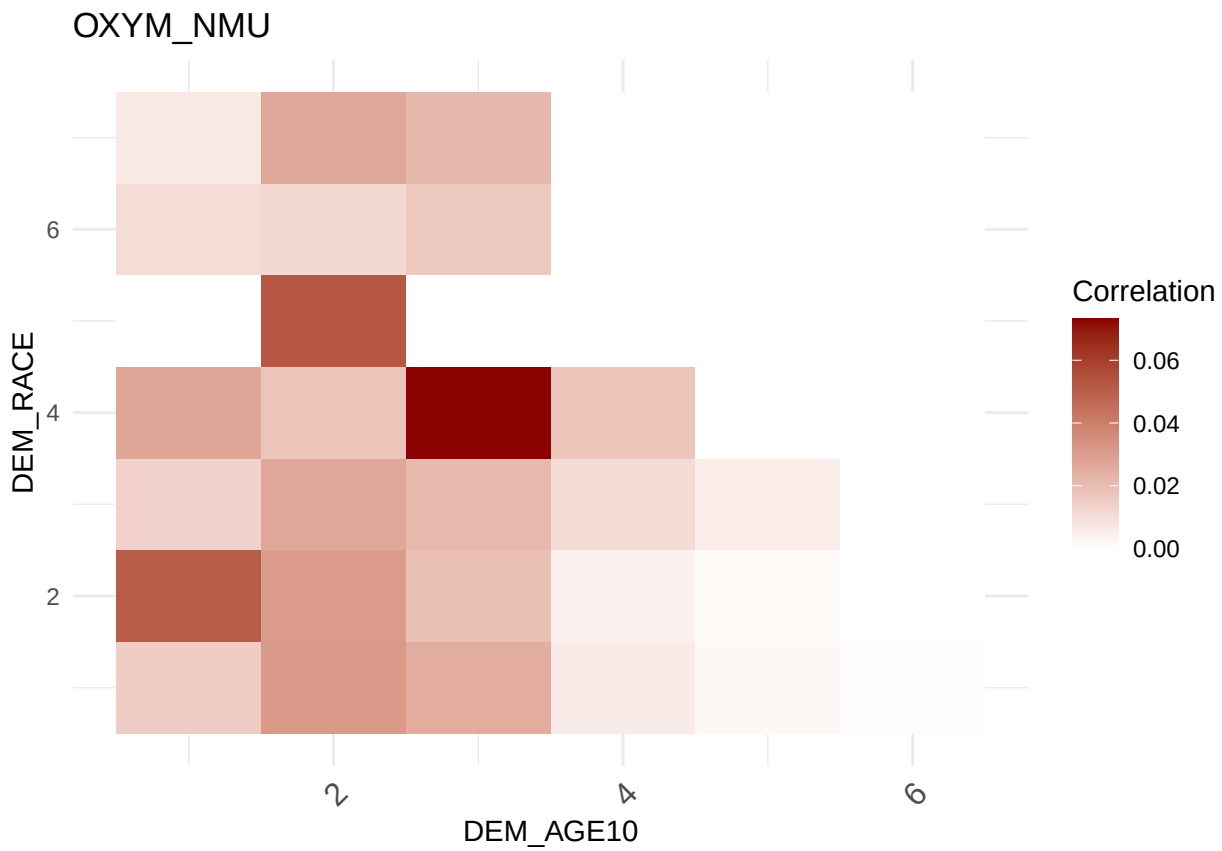

FENT_NMU
DEM_RACE
6
4
2
2
4
6
DEM_AGE10
Correlation
0.06
0.04
0.02
0.00

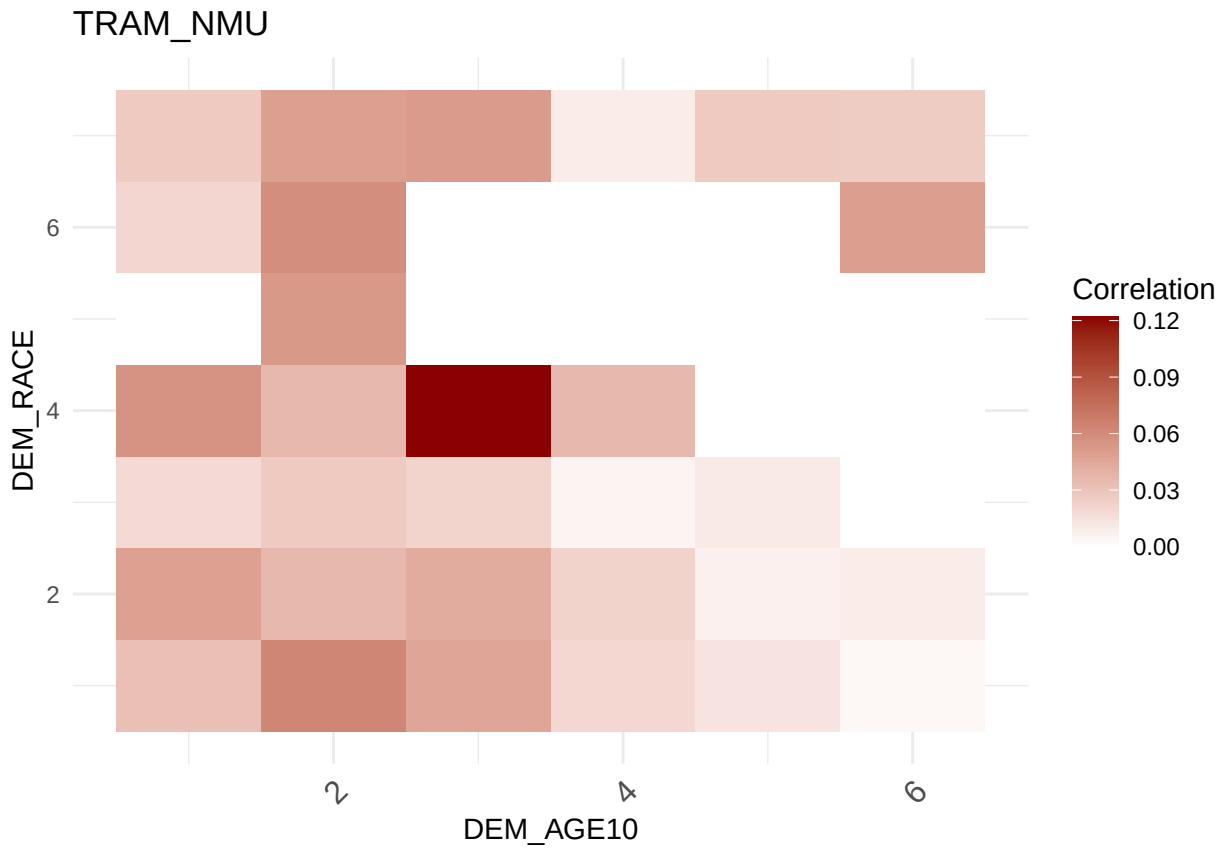

BUP_NMU
DEM_RACE
6
4
2
2
4
6
DEM_AGE10
Correlation
0.04
0.03
0.02
0.01
0.00

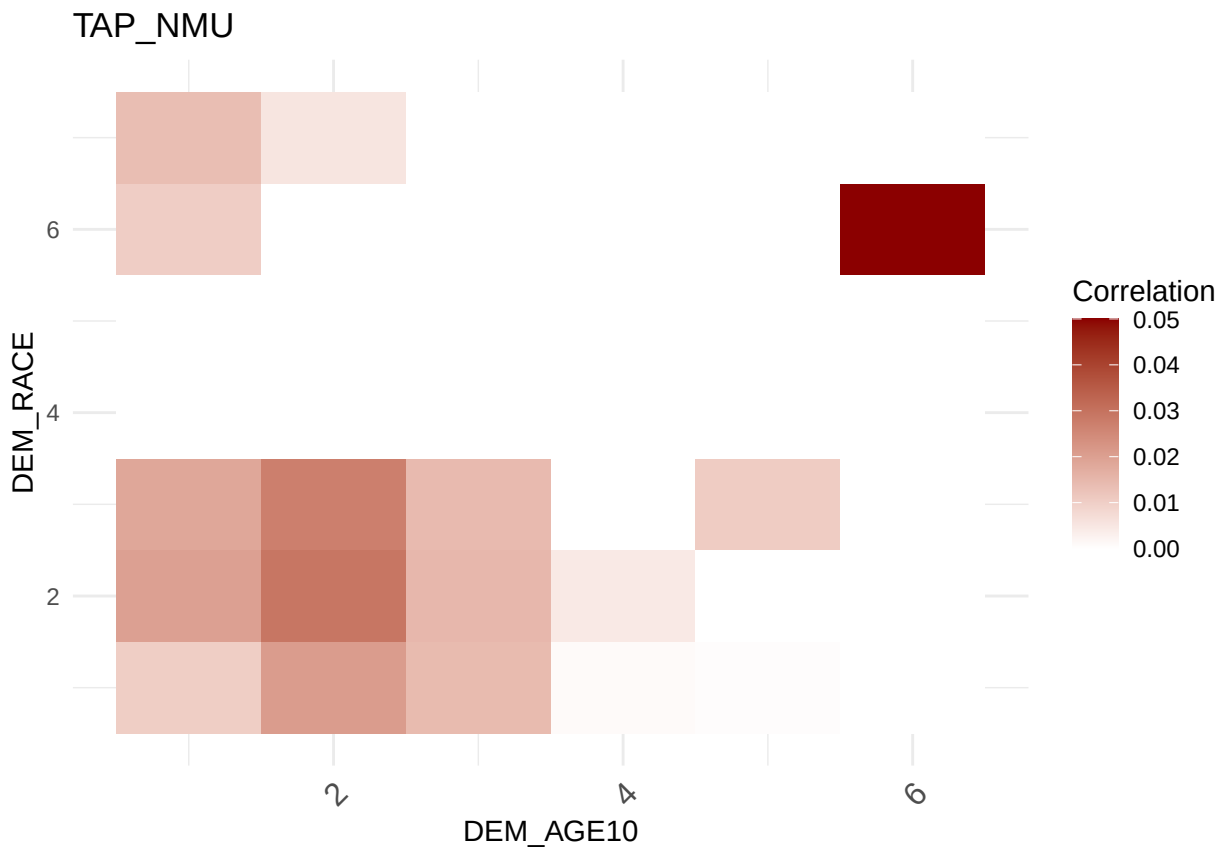

METH_NMU
DEM_RACE
6
4
2
2
4
6
DEM_AGE10
Correlation
0.075
0.050
0.025
0.000

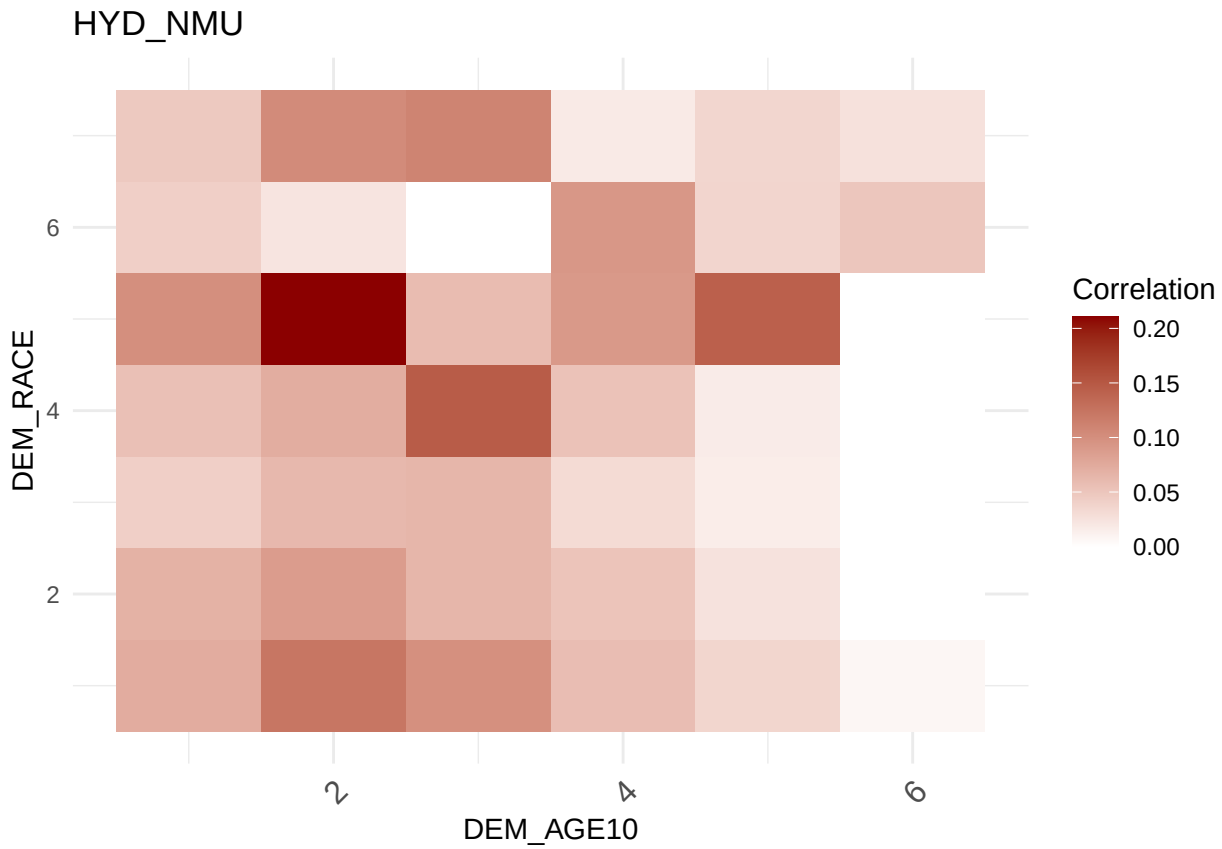

MORPH_NMU
DEM_RACE
6
4
2
2
4
6
DEM_AGE10
Correlation
0.04
0.03
0.02
0.01
0.00

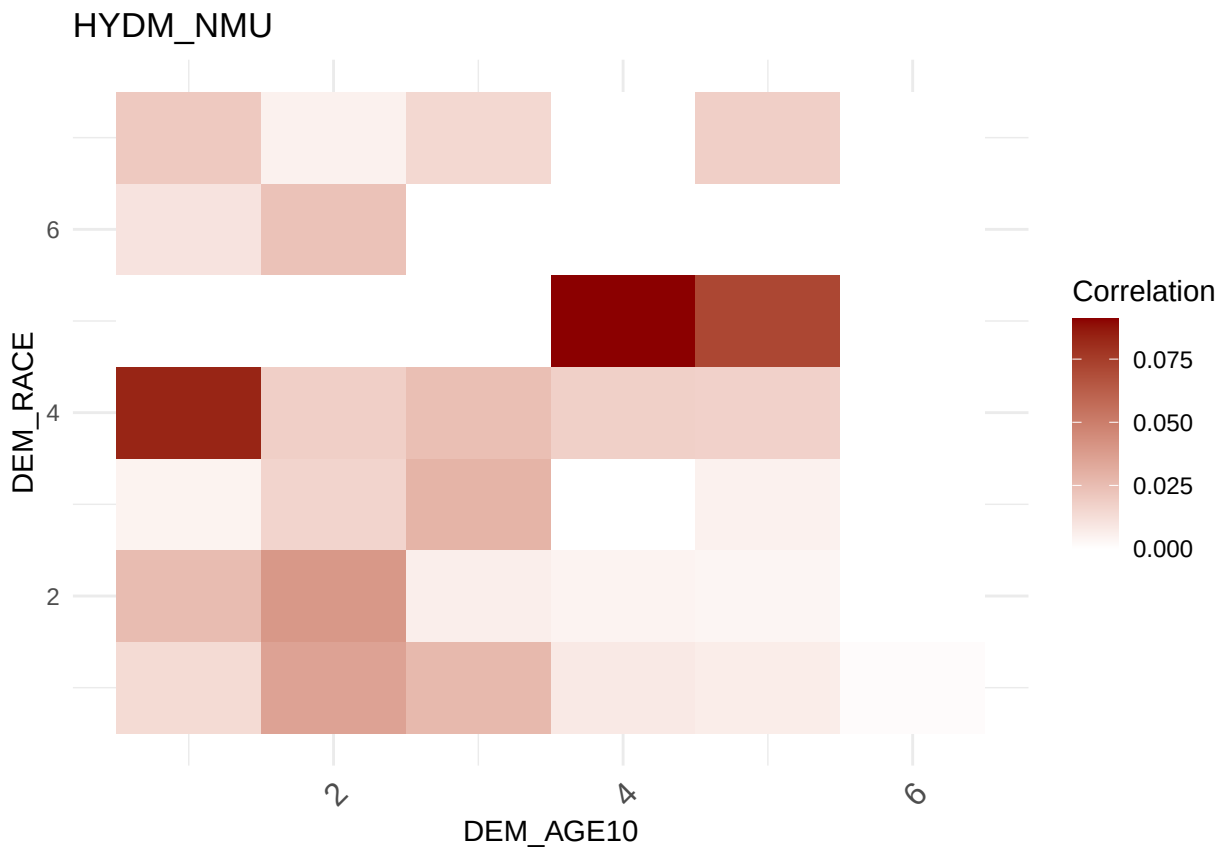

OXY_NMU
DEM_RACE
6
4
2
2
4
6
DEM_AGE10
Correlation
0.10
0.05
0.00

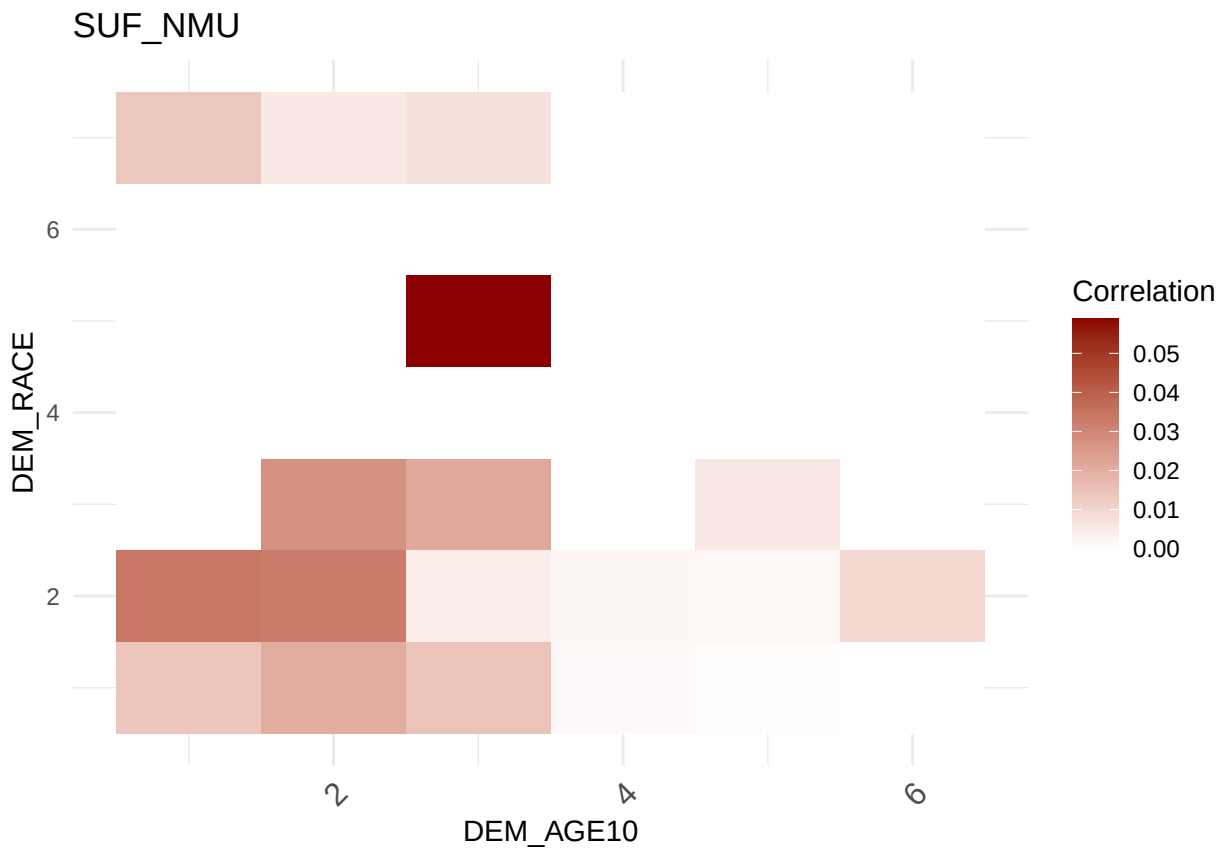

OXYM_NMU
DEM_RACE
6
4
2
2
4
6
DEM_AGE10
Correlation
0.06
0.04
0.02
0.00

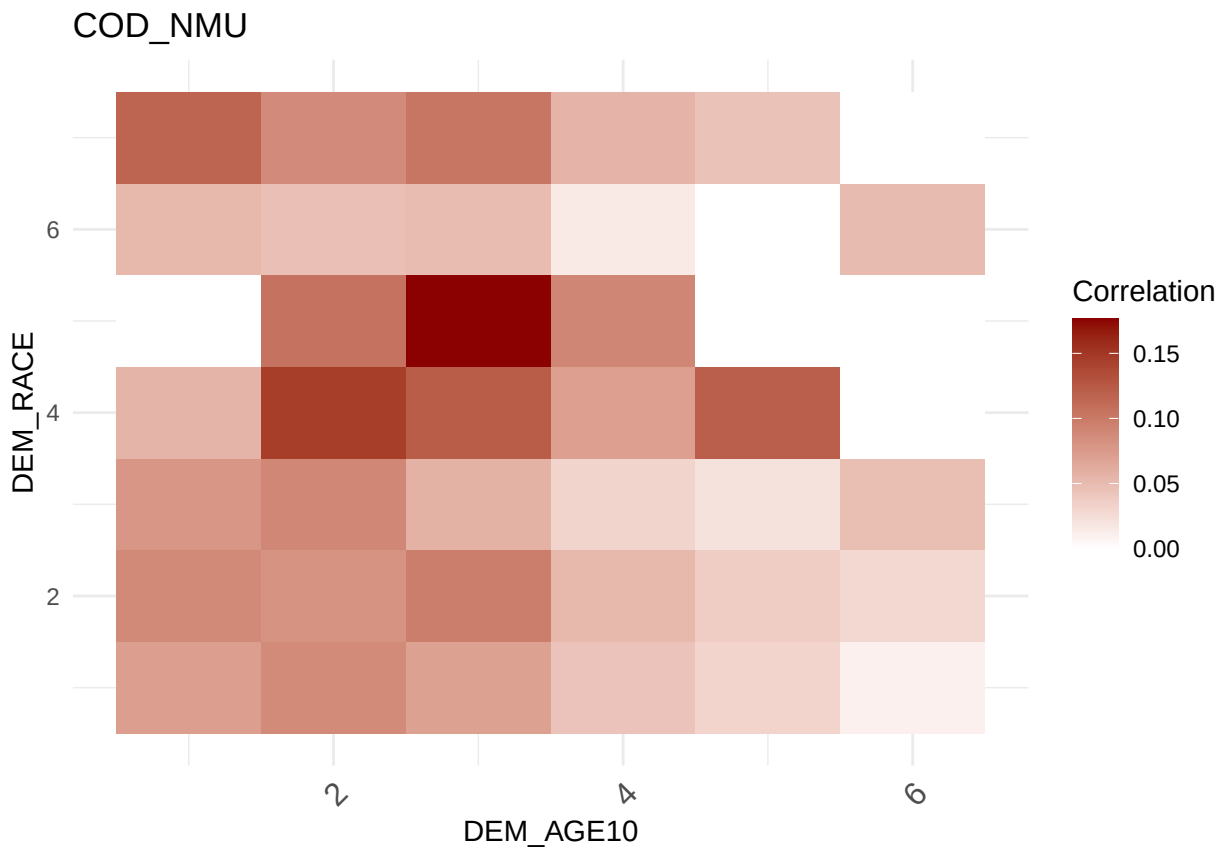

TRAM_NMU
DEM_RACE
6
4
2
2
4
6
DEM_AGE10
Correlation
0.12
0.09
0.06
0.03
0.00

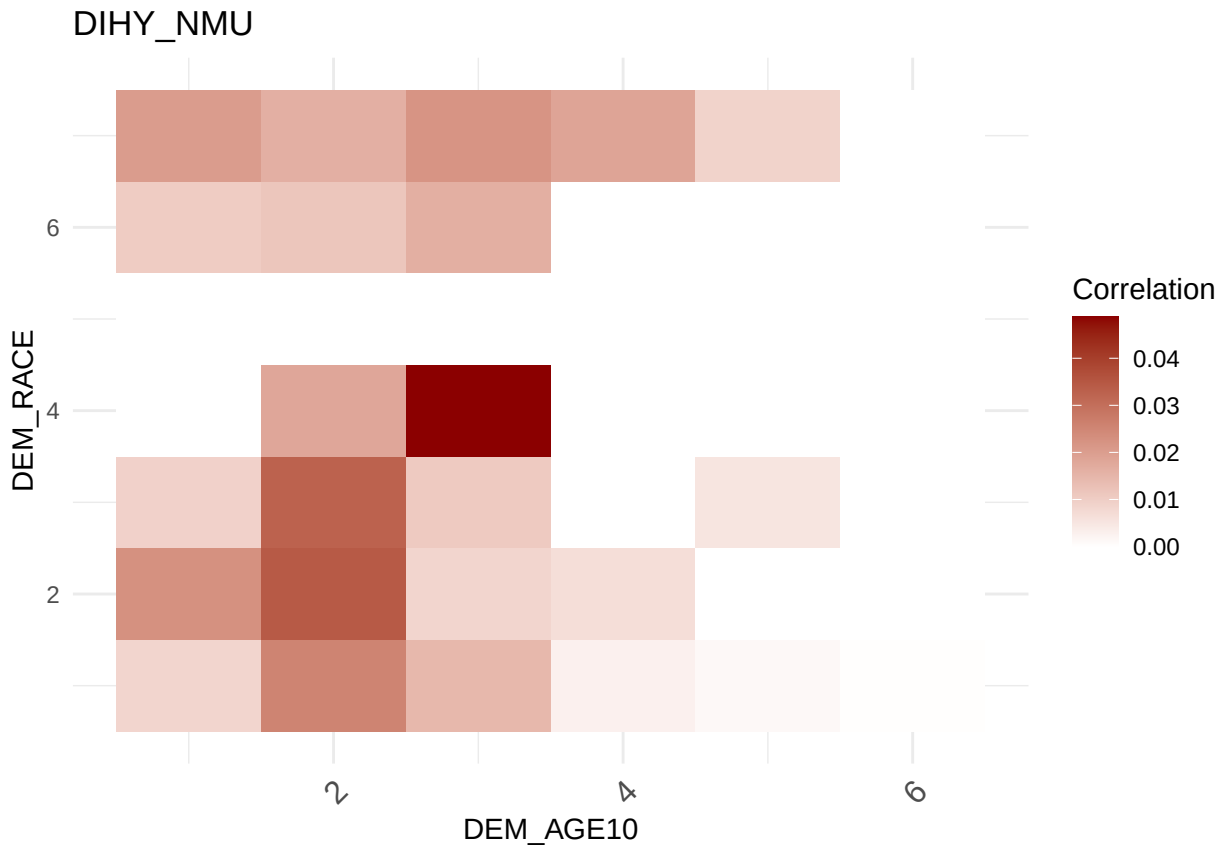

TAP_NMU
DEM_RACE
6
4
2
2
4
6
DEM_AGE10
Correlation
0.05
0.04
0.03
0.02
0.01
0.00

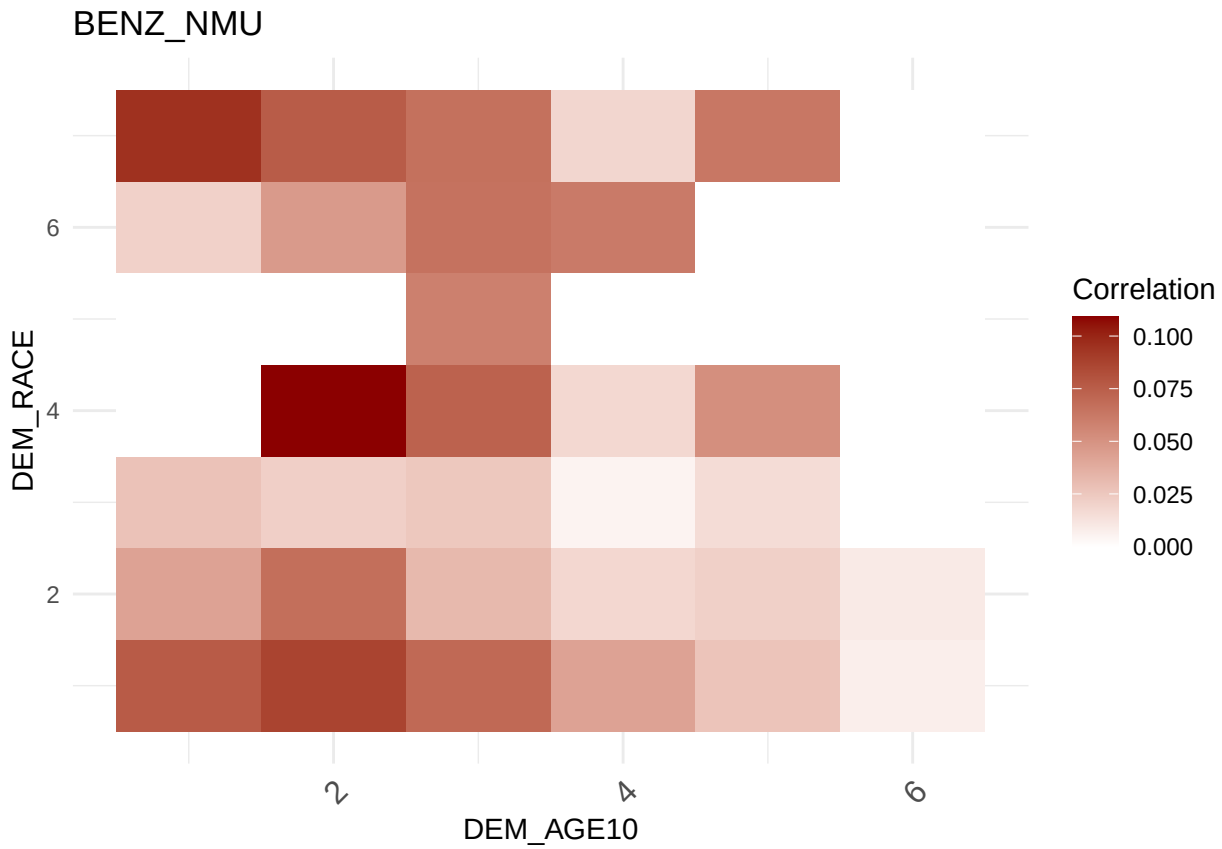

HYD_NMU
DEM_RACE
6
4
2
2
4
6
DEM_AGE10
Correlation
0.20
0.15
0.10
0.05
0.00

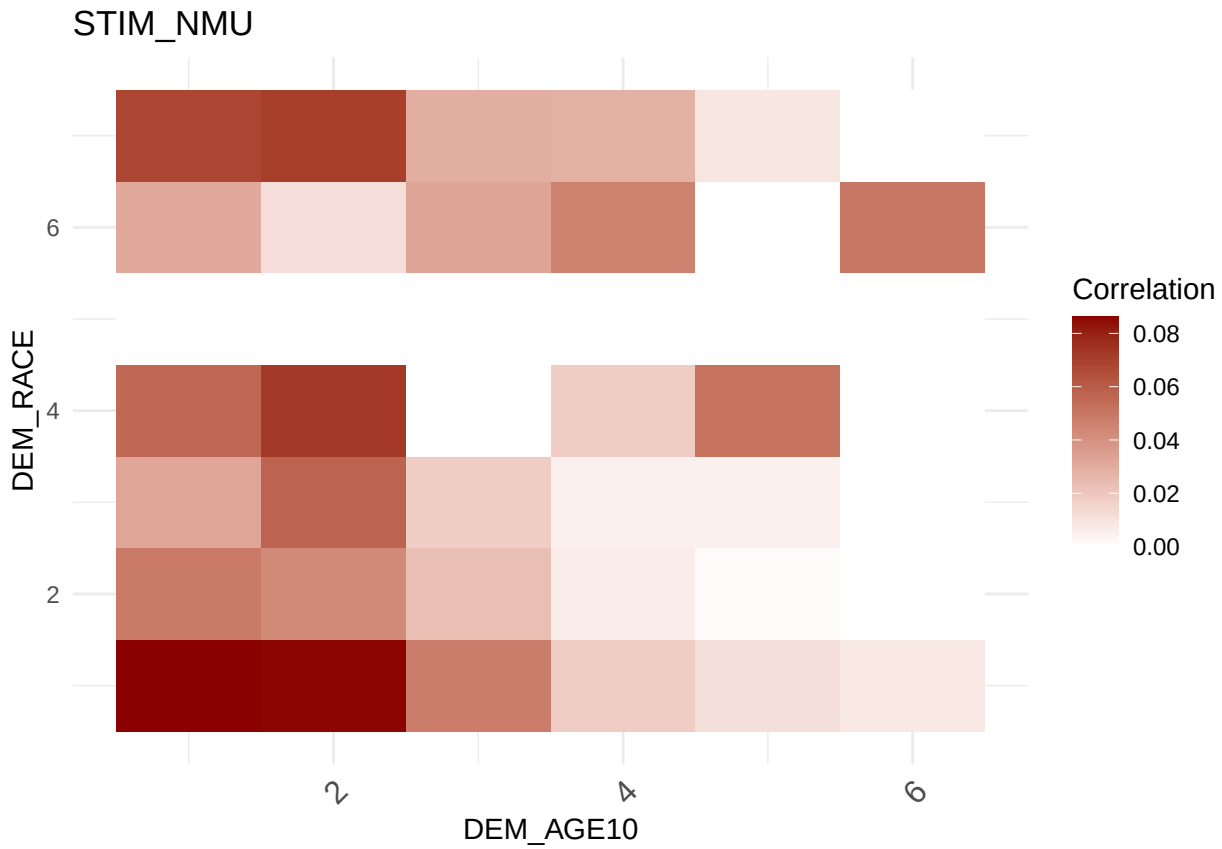

HYDM_NMU
DEM_RACE
6
4
2
2
4
6
DEM_AGE10
Correlation
0.075
0.050
0.025
0.000

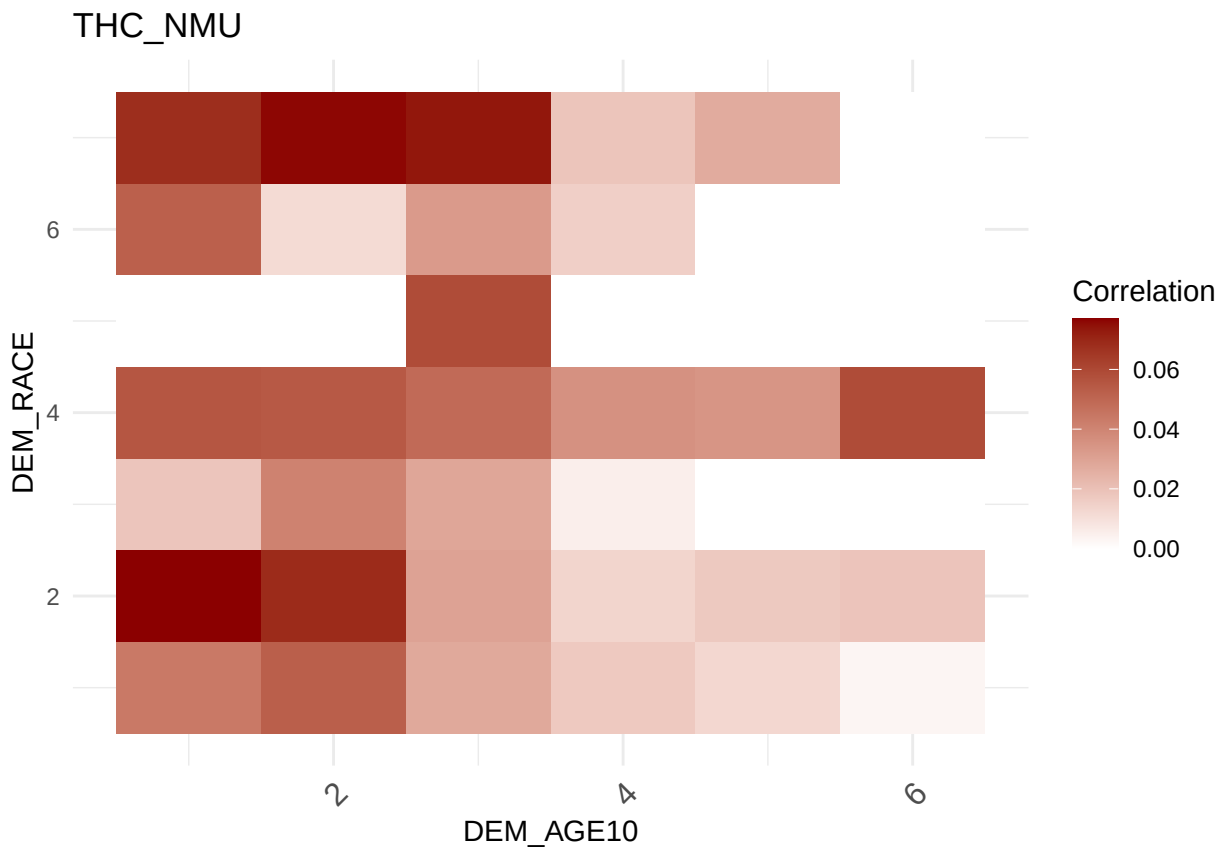

SUF_NMU
DEM_RACE
6
4
2
2
4
6
DEM_AGE10
Correlation
0.05
0.04
0.03
0.02
0.01
0.00

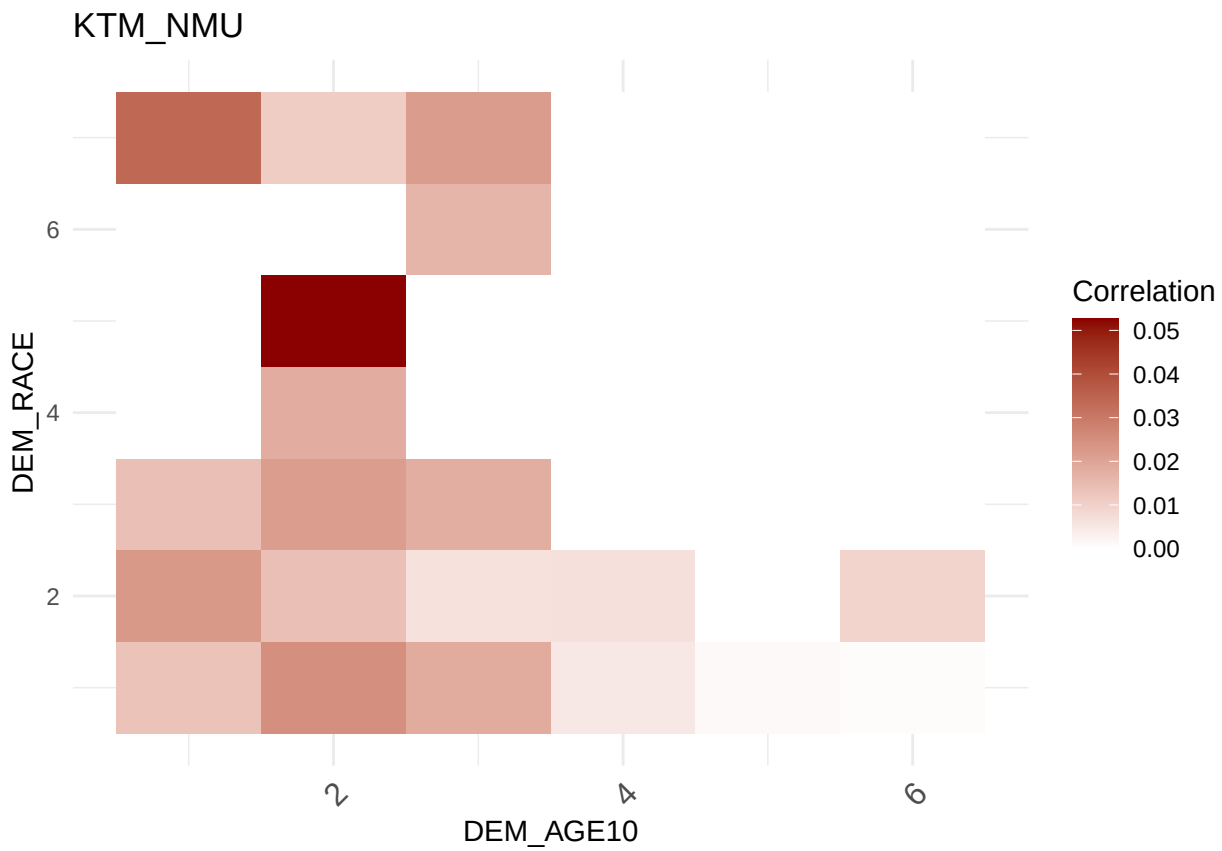

COD_NMU
DEM_RACE
6
4
2
2
4
6
DEM_AGE10
Correlation
0.15
0.10
0.05
0.00


DIHY_NMU
DEM_RACE
6
4
2
2
4
6
DEM_AGE10
Correlation
0.04
0.03
0.02
0.01
0.00


BENZ_NMU
DEM_RACE
6
4
2
2
4
6
DEM_AGE10
Correlation
0.100
0.075
0.050
0.025
0.000


STIM_NMU
DEM_RACE
6
4
2
2
4
6
DEM_AGE10
Correlation
0.08
0.06
0.04
0.02
0.00


THC_NMU
DEM_RACE
6
4
2
2
4
6
DEM_AGE10
Correlation
0.06
0.04
0.02
0.00


KTM_NMU
DEM_RACE
6
4
2
2
4
6
DEM_AGE10
Correlation
0.05
0.04
0.03
0.02
0.01
0.00