

Final Project Part 2

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```
## Loading required package: tools
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##
```

```
## Attaching package: 'HSAUR3'
```

```
## The following object is masked from 'package:TH.data':
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```
##
```

```
##      birds
```

```
##      subject      onset disorder month
## 1          1 < 20 yrs  present      0
## 45         1 < 20 yrs  present      2
## 89         1 < 20 yrs  absent      6
## 133        1 < 20 yrs  absent      8
## 177        1 < 20 yrs  absent     10
## 2          2 > 20 yrs  absent      0
## 46         2 > 20 yrs  absent      2
## 90         2 > 20 yrs  absent      6
## 134        2 > 20 yrs  absent      8
## 178        2 > 20 yrs  absent     10
## 3          3 < 20 yrs  present      0
## 47         3 < 20 yrs  present      2
## 91         3 < 20 yrs  absent      6
## 135        3 < 20 yrs  absent      8
## 179        3 < 20 yrs  absent     10
## 4          4 < 20 yrs  absent      0
## 48         4 < 20 yrs  absent      2
## 92         4 < 20 yrs  absent      6
## 136        4 < 20 yrs  absent      8
## 180        4 < 20 yrs  absent     10
## 5          5 < 20 yrs  present      0
## 49         5 < 20 yrs  present      2
## 93         5 < 20 yrs  present      6
## 137        5 < 20 yrs  present      8
## 181        5 < 20 yrs  present     10
## 6          6 < 20 yrs  present      0
## 50         6 < 20 yrs  present      2
## 94         6 < 20 yrs  absent      6
## 138        6 < 20 yrs  absent      8
## 182        6 < 20 yrs  absent     10
## 7          7 < 20 yrs  present      0
## 51         7 < 20 yrs  absent      2
## 95         7 < 20 yrs  present      6
## 139        7 < 20 yrs  absent      8
## 183        7 < 20 yrs  absent     10
## 8          8 < 20 yrs  present      0
## 52         8 < 20 yrs  present      2
```

## 96	8 < 20 yrs	absent	6
## 140	8 < 20 yrs	absent	8
## 184	8 < 20 yrs	absent	10
## 9	9 < 20 yrs	absent	0
## 53	9 < 20 yrs	absent	2
## 97	9 < 20 yrs	present	6
## 141	9 < 20 yrs	absent	8
## 185	9 < 20 yrs	absent	10
## 10	10 > 20 yrs	absent	0
## 54	10 > 20 yrs	absent	2
## 98	10 > 20 yrs	absent	6
## 142	10 > 20 yrs	absent	8
## 186	10 > 20 yrs	absent	10
## 11	11 > 20 yrs	present	0
## 55	11 > 20 yrs	present	2
## 99	11 > 20 yrs	present	6
## 143	11 > 20 yrs	absent	8
## 187	11 > 20 yrs	present	10
## 12	12 < 20 yrs	absent	0
## 56	12 < 20 yrs	absent	2
## 100	12 < 20 yrs	<NA>	6
## 144	12 < 20 yrs	<NA>	8
## 188	12 < 20 yrs	<NA>	10
## 13	13 > 20 yrs	present	0
## 57	13 > 20 yrs	present	2
## 101	13 > 20 yrs	absent	6
## 145	13 > 20 yrs	absent	8
## 189	13 > 20 yrs	absent	10
## 14	14 < 20 yrs	present	0
## 58	14 < 20 yrs	present	2
## 102	14 < 20 yrs	absent	6
## 146	14 < 20 yrs	absent	8
## 190	14 < 20 yrs	absent	10
## 15	15 > 20 yrs	present	0
## 59	15 > 20 yrs	present	2
## 103	15 > 20 yrs	absent	6
## 147	15 > 20 yrs	absent	8
## 191	15 > 20 yrs	absent	10
## 16	16 < 20 yrs	present	0
## 60	16 < 20 yrs	present	2
## 104	16 < 20 yrs	present	6
## 148	16 < 20 yrs	absent	8
## 192	16 < 20 yrs	absent	10
## 17	17 < 20 yrs	absent	0
## 61	17 < 20 yrs	present	2
## 105	17 < 20 yrs	absent	6
## 149	17 < 20 yrs	absent	8
## 193	17 < 20 yrs	absent	10
## 18	18 < 20 yrs	present	0
## 62	18 < 20 yrs	present	2
## 106	18 < 20 yrs	absent	6
## 150	18 < 20 yrs	present	8
## 194	18 < 20 yrs	absent	10
## 19	19 < 20 yrs	present	0

## 63	19 < 20 yrs	present	2
## 107	19 < 20 yrs	present	6
## 151	19 < 20 yrs	absent	8
## 195	19 < 20 yrs	absent	10
## 20	20 < 20 yrs	absent	0
## 64	20 < 20 yrs	absent	2
## 108	20 < 20 yrs	absent	6
## 152	20 < 20 yrs	absent	8
## 196	20 < 20 yrs	absent	10
## 21	21 < 20 yrs	absent	0
## 65	21 < 20 yrs	absent	2
## 109	21 < 20 yrs	present	6
## 153	21 < 20 yrs	present	8
## 197	21 < 20 yrs	present	10
## 22	22 > 20 yrs	absent	0
## 66	22 > 20 yrs	present	2
## 110	22 > 20 yrs	present	6
## 154	22 > 20 yrs	absent	8
## 198	22 > 20 yrs	absent	10
## 23	23 < 20 yrs	present	0
## 67	23 < 20 yrs	present	2
## 111	23 < 20 yrs	absent	6
## 155	23 < 20 yrs	present	8
## 199	23 < 20 yrs	absent	10
## 24	24 < 20 yrs	present	0
## 68	24 < 20 yrs	absent	2
## 112	24 < 20 yrs	absent	6
## 156	24 < 20 yrs	absent	8
## 200	24 < 20 yrs	absent	10
## 25	25 > 20 yrs	present	0
## 69	25 > 20 yrs	absent	2
## 113	25 > 20 yrs	absent	6
## 157	25 > 20 yrs	absent	8
## 201	25 > 20 yrs	absent	10
## 26	26 < 20 yrs	absent	0
## 70	26 < 20 yrs	absent	2
## 114	26 < 20 yrs	absent	6
## 158	26 < 20 yrs	absent	8
## 202	26 < 20 yrs	absent	10
## 27	27 < 20 yrs	present	0
## 71	27 < 20 yrs	present	2
## 115	27 < 20 yrs	absent	6
## 159	27 < 20 yrs	absent	8
## 203	27 < 20 yrs	absent	10
## 28	28 < 20 yrs	absent	0
## 72	28 < 20 yrs	absent	2
## 116	28 < 20 yrs	absent	6
## 160	28 < 20 yrs	absent	8
## 204	28 < 20 yrs	absent	10
## 29	29 > 20 yrs	present	0
## 73	29 > 20 yrs	present	2
## 117	29 > 20 yrs	absent	6
## 161	29 > 20 yrs	absent	8
## 205	29 > 20 yrs	absent	10

## 30	30 > 20 yrs	absent	0
## 74	30 > 20 yrs	absent	2
## 118	30 > 20 yrs	absent	6
## 162	30 > 20 yrs	absent	8
## 206	30 > 20 yrs	absent	10
## 31	31 < 20 yrs	absent	0
## 75	31 < 20 yrs	absent	2
## 119	31 < 20 yrs	absent	6
## 163	31 < 20 yrs	absent	8
## 207	31 < 20 yrs	absent	10
## 32	32 < 20 yrs	absent	0
## 76	32 < 20 yrs	present	2
## 120	32 < 20 yrs	absent	6
## 164	32 < 20 yrs	absent	8
## 208	32 < 20 yrs	absent	10
## 33	33 < 20 yrs	present	0
## 77	33 < 20 yrs	present	2
## 121	33 < 20 yrs	present	6
## 165	33 < 20 yrs	present	8
## 209	33 < 20 yrs	present	10
## 34	34 < 20 yrs	present	0
## 78	34 < 20 yrs	present	2
## 122	34 < 20 yrs	present	6
## 166	34 < 20 yrs	absent	8
## 210	34 < 20 yrs	absent	10
## 35	35 < 20 yrs	present	0
## 79	35 < 20 yrs	absent	2
## 123	35 < 20 yrs	absent	6
## 167	35 < 20 yrs	absent	8
## 211	35 < 20 yrs	absent	10
## 36	36 > 20 yrs	present	0
## 80	36 > 20 yrs	absent	2
## 124	36 > 20 yrs	absent	6
## 168	36 > 20 yrs	<NA>	8
## 212	36 > 20 yrs	<NA>	10
## 37	37 < 20 yrs	absent	0
## 81	37 < 20 yrs	present	2
## 125	37 < 20 yrs	<NA>	6
## 169	37 < 20 yrs	<NA>	8
## 213	37 < 20 yrs	<NA>	10
## 38	38 > 20 yrs	absent	0
## 82	38 > 20 yrs	absent	2
## 126	38 > 20 yrs	absent	6
## 170	38 > 20 yrs	absent	8
## 214	38 > 20 yrs	absent	10
## 39	39 < 20 yrs	present	0
## 83	39 < 20 yrs	<NA>	2
## 127	39 < 20 yrs	<NA>	6
## 171	39 < 20 yrs	<NA>	8
## 215	39 < 20 yrs	<NA>	10
## 40	40 < 20 yrs	present	0
## 84	40 < 20 yrs	present	2
## 128	40 < 20 yrs	absent	6
## 172	40 < 20 yrs	absent	8

```
## 216      40 < 20 yrs   absent    10
## 41       41 > 20 yrs   present     0
## 85       41 > 20 yrs   present     2
## 129      41 > 20 yrs   present     6
## 173      41 > 20 yrs   absent     8
## 217      41 > 20 yrs   absent    10
## 42       42 < 20 yrs   absent     0
## 86       42 < 20 yrs   present     2
## 130      42 < 20 yrs    <NA>      6
## 174      42 < 20 yrs    <NA>      8
## 218      42 < 20 yrs    <NA>    10
## 43       43 < 20 yrs   present     0
## 87       43 < 20 yrs   absent     2
## 131      43 < 20 yrs   absent     6
## 175      43 < 20 yrs   absent     8
## 219      43 < 20 yrs    <NA>    10
## 44       44 < 20 yrs   present     0
## 88       44 < 20 yrs   present     2
## 132      44 < 20 yrs   absent     6
## 176      44 < 20 yrs   absent     8
## 220      44 < 20 yrs   absent    10
```

```
#Initial Summary Statistics
```

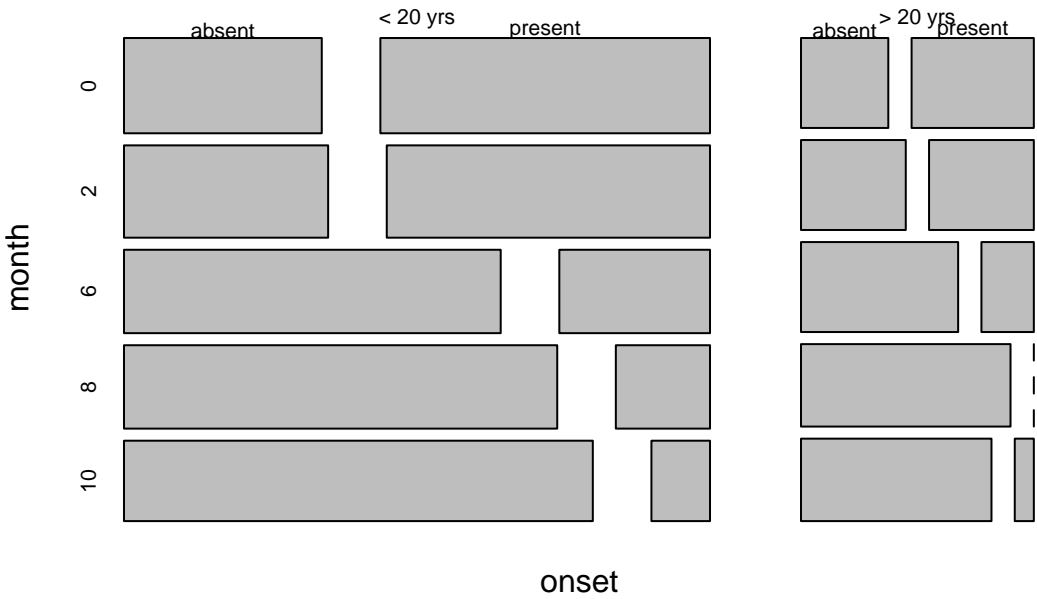
```
##      Onset Mean   St Dev
## 1 < 20 yrs  5.2 3.721094
## 2 > 20 yrs  5.2 3.740751
```

```
#Poisson regression
```

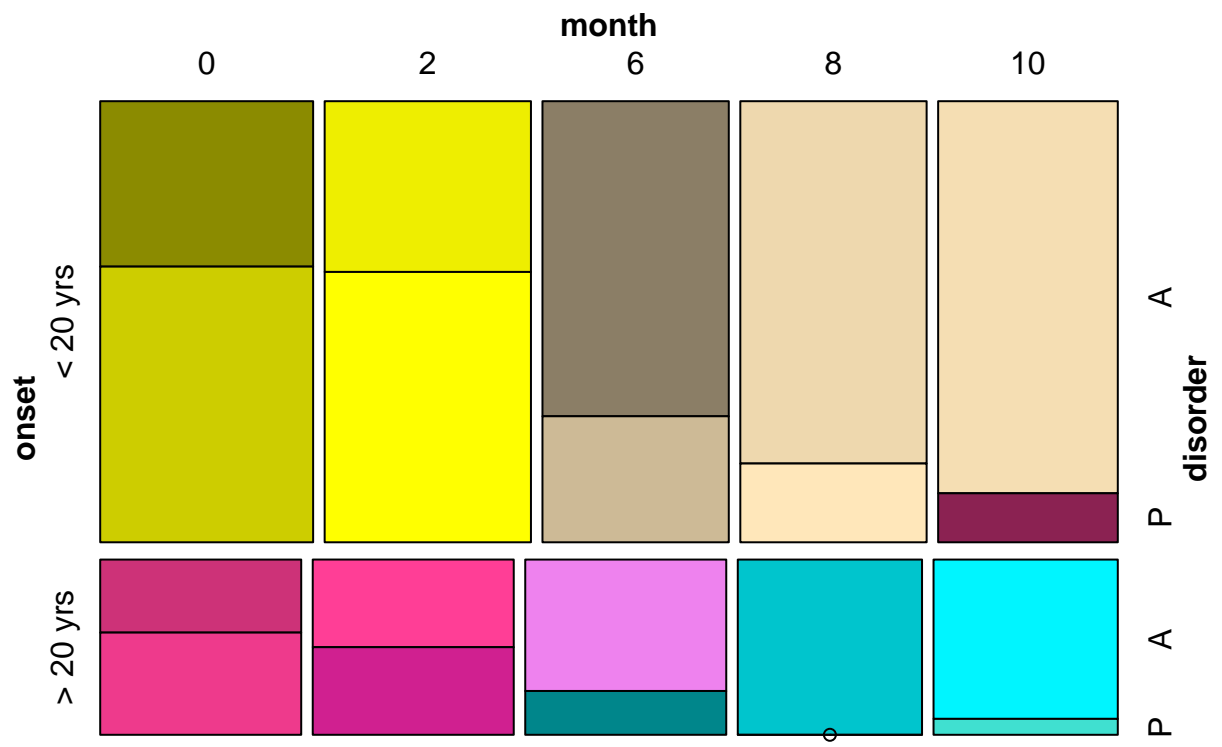
```
##
## Call:
## glm(formula = month ~ onset, family = poisson(), data = df_schiz)
##
## Deviance Residuals:
##      Min       1Q   Median       3Q      Max
## -3.2249  -1.6056   0.3424   1.1369   1.8651
##
## Coefficients:
##              Estimate Std. Error z value Pr(>|z|)
## (Intercept)  1.649e+00  3.467e-02  47.55  <2e-16 ***
## onset> 20 yrs  2.948e-17  6.639e-02   0.00      1
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for poisson family taken to be 1)
##
##      Null deviance: 786.11  on 219  degrees of freedom
## Residual deviance: 786.11  on 218  degrees of freedom
## AIC: 1422.2
##
## Number of Fisher Scoring iterations: 5
```

```
#Setup of mosaic plot
```

xtabs(~onset + month + disorder, data = df_schiz)



#Generation of initial mosaic plot



#Modified Mosaic Plot

