> with(wmadf[wmadf$isValidationSet\_4543 == "training set" , ], CrossTable(ageg6, er\_c4\_v2, expected = TRUE, chisq = TRUE))

Cell Contents

|-------------------------|

| N |

| Expected N |

| Chi-square contribution |

| N / Row Total |

| N / Col Total |

| N / Table Total |

|-------------------------|

Total Observations in Table: 1986

| er\_c4\_v2

ageg6 | none or <1% | 1-25% | 25-75% | >75% nuclei stained | Row Total |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(0,35] | 38 | 1 | 20 | 6 | 65 |

| 19.670 | 5.793 | 20.128 | 19.408 | |

| 17.081 | 3.966 | 0.001 | 9.263 | |

| 0.585 | 0.015 | 0.308 | 0.092 | 0.033 |

| 0.063 | 0.006 | 0.033 | 0.010 | |

| 0.019 | 0.001 | 0.010 | 0.003 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(35,45] | 136 | 39 | 119 | 33 | 327 |

| 98.956 | 29.144 | 101.261 | 97.639 | |

| 13.867 | 3.334 | 3.107 | 42.792 | |

| 0.416 | 0.119 | 0.364 | 0.101 | 0.165 |

| 0.226 | 0.220 | 0.193 | 0.056 | |

| 0.068 | 0.020 | 0.060 | 0.017 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(45,55] | 139 | 46 | 130 | 75 | 390 |

| 118.021 | 34.758 | 120.770 | 116.450 | |

| 3.729 | 3.636 | 0.705 | 14.754 | |

| 0.356 | 0.118 | 0.333 | 0.192 | 0.196 |

| 0.231 | 0.260 | 0.211 | 0.126 | |

| 0.070 | 0.023 | 0.065 | 0.038 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(55,65] | 129 | 45 | 133 | 163 | 470 |

| 142.231 | 41.888 | 145.544 | 140.337 | |

| 1.231 | 0.231 | 1.081 | 3.660 | |

| 0.274 | 0.096 | 0.283 | 0.347 | 0.237 |

| 0.215 | 0.254 | 0.216 | 0.275 | |

| 0.065 | 0.023 | 0.067 | 0.082 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(65,75] | 119 | 33 | 154 | 220 | 526 |

| 159.177 | 46.879 | 162.885 | 157.058 | |

| 10.141 | 4.109 | 0.485 | 25.224 | |

| 0.226 | 0.063 | 0.293 | 0.418 | 0.265 |

| 0.198 | 0.186 | 0.250 | 0.371 | |

| 0.060 | 0.017 | 0.078 | 0.111 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(75,99] | 40 | 13 | 59 | 96 | 208 |

| 62.945 | 18.538 | 64.411 | 62.107 | |

| 8.364 | 1.654 | 0.455 | 18.496 | |

| 0.192 | 0.062 | 0.284 | 0.462 | 0.105 |

| 0.067 | 0.073 | 0.096 | 0.162 | |

| 0.020 | 0.007 | 0.030 | 0.048 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

Column Total | 601 | 177 | 615 | 593 | 1986 |

| 0.303 | 0.089 | 0.310 | 0.299 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

Statistics for All Table Factors

Pearson's Chi-squared test

------------------------------------------------------------

Chi^2 = 191.3658 d.f. = 15 p = 1.199341e-32

> with(wmadf[wmadf$isValidationSet\_4543 == "validation set" , ], CrossTable(ageg6, er\_c4\_v2, expected = TRUE, chisq = TRUE))

Cell Contents

|-------------------------|

| N |

| Expected N |

| Chi-square contribution |

| N / Row Total |

| N / Col Total |

| N / Table Total |

|-------------------------|

Total Observations in Table: 1974

| er\_c4\_v2

ageg6 | none or <1% | 1-25% | 25-75% | >75% nuclei stained | Row Total |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(0,35] | 48 | 4 | 13 | 7 | 72 |

| 21.848 | 6.128 | 22.395 | 21.629 | |

| 31.304 | 0.739 | 3.941 | 9.895 | |

| 0.667 | 0.056 | 0.181 | 0.097 | 0.036 |

| 0.080 | 0.024 | 0.021 | 0.012 | |

| 0.024 | 0.002 | 0.007 | 0.004 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(35,45] | 117 | 25 | 128 | 49 | 319 |

| 96.799 | 27.149 | 99.223 | 95.829 | |

| 4.216 | 0.170 | 8.346 | 22.884 | |

| 0.367 | 0.078 | 0.401 | 0.154 | 0.162 |

| 0.195 | 0.149 | 0.208 | 0.083 | |

| 0.059 | 0.013 | 0.065 | 0.025 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(45,55] | 130 | 45 | 153 | 76 | 404 |

| 122.592 | 34.383 | 125.662 | 121.364 | |

| 0.448 | 3.278 | 5.948 | 16.956 | |

| 0.322 | 0.111 | 0.379 | 0.188 | 0.205 |

| 0.217 | 0.268 | 0.249 | 0.128 | |

| 0.066 | 0.023 | 0.078 | 0.039 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(55,65] | 152 | 46 | 136 | 163 | 497 |

| 150.812 | 42.298 | 154.589 | 149.301 | |

| 0.009 | 0.324 | 2.235 | 1.257 | |

| 0.306 | 0.093 | 0.274 | 0.328 | 0.252 |

| 0.254 | 0.274 | 0.221 | 0.275 | |

| 0.077 | 0.023 | 0.069 | 0.083 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(65,75] | 115 | 35 | 128 | 192 | 470 |

| 142.619 | 40.000 | 146.190 | 141.190 | |

| 5.349 | 0.625 | 2.263 | 18.285 | |

| 0.245 | 0.074 | 0.272 | 0.409 | 0.238 |

| 0.192 | 0.208 | 0.208 | 0.324 | |

| 0.058 | 0.018 | 0.065 | 0.097 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(75,99] | 37 | 13 | 56 | 106 | 212 |

| 64.330 | 18.043 | 65.941 | 63.686 | |

| 11.611 | 1.409 | 1.499 | 28.114 | |

| 0.175 | 0.061 | 0.264 | 0.500 | 0.107 |

| 0.062 | 0.077 | 0.091 | 0.179 | |

| 0.019 | 0.007 | 0.028 | 0.054 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

Column Total | 599 | 168 | 614 | 593 | 1974 |

| 0.303 | 0.085 | 0.311 | 0.300 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

Statistics for All Table Factors

Pearson's Chi-squared test

------------------------------------------------------------

Chi^2 = 181.1052 d.f. = 15 p = 1.422955e-30

> with(wmadf, CrossTable(ageg6, er\_c4\_v2, expected = TRUE, chisq = TRUE))

Cell Contents

|-------------------------|

| N |

| Expected N |

| Chi-square contribution |

| N / Row Total |

| N / Col Total |

| N / Table Total |

|-------------------------|

Total Observations in Table: 3960

| er\_c4\_v2

ageg6 | none or <1% | 1-25% | 25-75% | >75% nuclei stained | Row Total |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(0,35] | 86 | 5 | 33 | 13 | 137 |

| 41.515 | 11.936 | 42.518 | 41.031 | |

| 47.667 | 4.030 | 2.131 | 19.150 | |

| 0.628 | 0.036 | 0.241 | 0.095 | 0.035 |

| 0.072 | 0.014 | 0.027 | 0.011 | |

| 0.022 | 0.001 | 0.008 | 0.003 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(35,45] | 253 | 64 | 247 | 82 | 646 |

| 195.758 | 56.280 | 200.488 | 193.474 | |

| 16.739 | 1.059 | 10.790 | 64.228 | |

| 0.392 | 0.099 | 0.382 | 0.127 | 0.163 |

| 0.211 | 0.186 | 0.201 | 0.069 | |

| 0.064 | 0.016 | 0.062 | 0.021 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(45,55] | 269 | 91 | 283 | 151 | 794 |

| 240.606 | 69.174 | 246.421 | 237.799 | |

| 3.351 | 6.886 | 5.430 | 31.682 | |

| 0.339 | 0.115 | 0.356 | 0.190 | 0.201 |

| 0.224 | 0.264 | 0.230 | 0.127 | |

| 0.068 | 0.023 | 0.071 | 0.038 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(55,65] | 281 | 91 | 269 | 326 | 967 |

| 293.030 | 84.246 | 300.112 | 289.612 | |

| 0.494 | 0.541 | 3.225 | 4.572 | |

| 0.291 | 0.094 | 0.278 | 0.337 | 0.244 |

| 0.234 | 0.264 | 0.219 | 0.275 | |

| 0.071 | 0.023 | 0.068 | 0.082 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(65,75] | 234 | 68 | 282 | 412 | 996 |

| 301.818 | 86.773 | 309.112 | 298.297 | |

| 15.239 | 4.061 | 2.378 | 43.341 | |

| 0.235 | 0.068 | 0.283 | 0.414 | 0.252 |

| 0.195 | 0.197 | 0.229 | 0.347 | |

| 0.059 | 0.017 | 0.071 | 0.104 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(75,99] | 77 | 26 | 115 | 202 | 420 |

| 127.273 | 36.591 | 130.348 | 125.788 | |

| 19.858 | 3.065 | 1.807 | 46.175 | |

| 0.183 | 0.062 | 0.274 | 0.481 | 0.106 |

| 0.064 | 0.075 | 0.094 | 0.170 | |

| 0.019 | 0.007 | 0.029 | 0.051 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

Column Total | 1200 | 345 | 1229 | 1186 | 3960 |

| 0.303 | 0.087 | 0.310 | 0.299 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

Statistics for All Table Factors

Pearson's Chi-squared test

------------------------------------------------------------

Chi^2 = 357.8998 d.f. = 15 p = 4.673443e-67

> with(wmadf[wmadf$her2\_b012v23\_v2=="Her2 = {0,1,2 w/ FISH neg}", ], CrossTable(ageg6, er\_c4\_v2, expected = TRUE, chisq = TRUE))

Cell Contents

|-------------------------|

| N |

| Expected N |

| Chi-square contribution |

| N / Row Total |

| N / Col Total |

| N / Table Total |

|-------------------------|

Total Observations in Table: 3292

| er\_c4\_v2

ageg6 | none or <1% | 1-25% | 25-75% | >75% nuclei stained | Row Total |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(0,35] | 66 | 5 | 26 | 13 | 110 |

| 27.767 | 9.657 | 36.422 | 36.154 | |

| 52.642 | 2.246 | 2.982 | 14.829 | |

| 0.600 | 0.045 | 0.236 | 0.118 | 0.033 |

| 0.079 | 0.017 | 0.024 | 0.012 | |

| 0.020 | 0.002 | 0.008 | 0.004 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(35,45] | 185 | 50 | 230 | 72 | 537 |

| 135.555 | 47.142 | 177.804 | 176.499 | |

| 18.036 | 0.173 | 15.323 | 61.870 | |

| 0.345 | 0.093 | 0.428 | 0.134 | 0.163 |

| 0.223 | 0.173 | 0.211 | 0.067 | |

| 0.056 | 0.015 | 0.070 | 0.022 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(45,55] | 189 | 77 | 239 | 138 | 643 |

| 162.313 | 56.448 | 212.901 | 211.338 | |

| 4.388 | 7.483 | 3.199 | 25.450 | |

| 0.294 | 0.120 | 0.372 | 0.215 | 0.195 |

| 0.227 | 0.266 | 0.219 | 0.128 | |

| 0.057 | 0.023 | 0.073 | 0.042 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(55,65] | 176 | 75 | 244 | 298 | 793 |

| 200.177 | 69.616 | 262.567 | 260.640 | |

| 2.920 | 0.416 | 1.313 | 5.355 | |

| 0.222 | 0.095 | 0.308 | 0.376 | 0.241 |

| 0.212 | 0.260 | 0.224 | 0.275 | |

| 0.053 | 0.023 | 0.074 | 0.091 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(65,75] | 161 | 57 | 251 | 377 | 846 |

| 213.556 | 74.269 | 280.115 | 278.060 | |

| 12.934 | 4.015 | 3.026 | 35.205 | |

| 0.190 | 0.067 | 0.297 | 0.446 | 0.257 |

| 0.194 | 0.197 | 0.230 | 0.348 | |

| 0.049 | 0.017 | 0.076 | 0.115 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(75,99] | 54 | 25 | 100 | 184 | 363 |

| 91.632 | 31.867 | 120.191 | 119.309 | |

| 15.455 | 1.480 | 3.392 | 35.076 | |

| 0.149 | 0.069 | 0.275 | 0.507 | 0.110 |

| 0.065 | 0.087 | 0.092 | 0.170 | |

| 0.016 | 0.008 | 0.030 | 0.056 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

Column Total | 831 | 289 | 1090 | 1082 | 3292 |

| 0.252 | 0.088 | 0.331 | 0.329 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

Statistics for All Table Factors

Pearson's Chi-squared test

------------------------------------------------------------

Chi^2 = 329.2089 d.f. = 15 p = 4.627225e-61

> with(wmadf[wmadf$her2\_b012v23\_v2=="Her2 = {2 w/ FISH pos, 3}", ], CrossTable(ageg6, er\_c4\_v2, expected = TRUE, chisq = TRUE))

Cell Contents

|-------------------------|

| N |

| Expected N |

| Chi-square contribution |

| N / Row Total |

| N / Col Total |

| N / Table Total |

|-------------------------|

Total Observations in Table: 491

| er\_c4\_v2

ageg6 | none or <1% | 1-25% | 25-75% | >75% nuclei stained | Row Total |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(0,35] | 16 | 0 | 6 | 0 | 22 |

| 12.859 | 1.747 | 4.346 | 3.047 | |

| 0.767 | 1.747 | 0.629 | 3.047 | |

| 0.727 | 0.000 | 0.273 | 0.000 | 0.045 |

| 0.056 | 0.000 | 0.062 | 0.000 | |

| 0.033 | 0.000 | 0.012 | 0.000 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(35,45] | 57 | 11 | 11 | 9 | 88 |

| 51.438 | 6.990 | 17.385 | 12.187 | |

| 0.601 | 2.301 | 2.345 | 0.834 | |

| 0.648 | 0.125 | 0.125 | 0.102 | 0.179 |

| 0.199 | 0.282 | 0.113 | 0.132 | |

| 0.116 | 0.022 | 0.022 | 0.018 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(45,55] | 64 | 9 | 31 | 6 | 110 |

| 64.297 | 8.737 | 21.731 | 15.234 | |

| 0.001 | 0.008 | 3.953 | 5.597 | |

| 0.582 | 0.082 | 0.282 | 0.055 | 0.224 |

| 0.223 | 0.231 | 0.320 | 0.088 | |

| 0.130 | 0.018 | 0.063 | 0.012 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(55,65] | 80 | 12 | 20 | 18 | 130 |

| 75.988 | 10.326 | 25.682 | 18.004 | |

| 0.212 | 0.271 | 1.257 | 0.000 | |

| 0.615 | 0.092 | 0.154 | 0.138 | 0.265 |

| 0.279 | 0.308 | 0.206 | 0.265 | |

| 0.163 | 0.024 | 0.041 | 0.037 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(65,75] | 53 | 7 | 19 | 24 | 103 |

| 60.206 | 8.181 | 20.348 | 14.265 | |

| 0.862 | 0.171 | 0.089 | 6.644 | |

| 0.515 | 0.068 | 0.184 | 0.233 | 0.210 |

| 0.185 | 0.179 | 0.196 | 0.353 | |

| 0.108 | 0.014 | 0.039 | 0.049 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

(75,99] | 17 | 0 | 10 | 11 | 38 |

| 22.212 | 3.018 | 7.507 | 5.263 | |

| 1.223 | 3.018 | 0.828 | 6.255 | |

| 0.447 | 0.000 | 0.263 | 0.289 | 0.077 |

| 0.059 | 0.000 | 0.103 | 0.162 | |

| 0.035 | 0.000 | 0.020 | 0.022 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

Column Total | 287 | 39 | 97 | 68 | 491 |

| 0.585 | 0.079 | 0.198 | 0.138 | |

-------------|---------------------|---------------------|---------------------|---------------------|---------------------|

Statistics for All Table Factors

Pearson's Chi-squared test

------------------------------------------------------------

Chi^2 = 42.66167 d.f. = 15 p = 0.0001776603

Warning message:

In chisq.test(t, correct = FALSE, ...) :

Chi-squared approximation may be incorrect