claims geog area age age65 age85 trav inc employ pop hs cd married dens loc

model=lm(claims ~ geog + area + age + age65 + age85 + trav + inc + employ + pop +hs + cd + married +dens + loc)

cor(cbind(claims , geog , area , age, age65 , age85 , trav , inc ,employ , pop , hs , cd , married , dens, loc),use="pairwise.complete.obs")

> cor(cbind(claims , geog , area , age, age65 , age85 , trav , inc ,employ , pop , hs , cd , married , dens, loc),use="pairwise.complete.obs")

claims geog area age age65

claims 1.000000000 -0.25377961 -0.03001100 -0.010618572 -0.03812652

geog -0.253779608 1.00000000 0.26838868 -0.405631319 -0.20148551

area -0.030011001 0.26838868 1.00000000 -0.409792982 -0.58841122

age -0.010618572 -0.40563132 -0.40979298 1.000000000 0.76955315

age65 -0.038126525 -0.20148551 -0.58841122 0.769553148 1.00000000

age85 -0.007349446 -0.27744746 -0.47112919 0.662183712 0.82463132

trav 0.679712055 -0.31843917 -0.32667935 -0.015296579 -0.04753646

inc 0.489305142 -0.36414475 0.01959007 -0.002954480 -0.27704351

employ -0.284333240 -0.25432855 -0.11669010 0.187741986 0.08728170

pop 0.222651570 0.02570838 0.12688786 -0.206145037 -0.10714285

hs -0.177245319 -0.13071675 0.10783987 0.200679164 -0.02037537

cd 0.459444087 -0.42212502 -0.11257946 -0.001287920 -0.18151542

married -0.499393965 0.27285194 0.11746372 -0.065833930 -0.07977184

dens 0.430433150 -0.28043756 -0.17904795 -0.026624466 0.02215157

loc -0.400457933 0.36587478 -0.05487633 -0.001836416 -0.01646195

age85 trav inc employ pop

claims -0.007349446 0.67971205 0.48930514 -0.28433324 0.22265157

geog -0.277447455 -0.31843917 -0.36414475 -0.25432855 0.02570838

area -0.471129191 -0.32667935 0.01959007 -0.11669010 0.12688786

age 0.662183712 -0.01529658 -0.00295448 0.18774199 -0.20614504

age65 0.824631322 -0.04753646 -0.27704351 0.08728170 -0.10714285

age85 1.000000000 -0.05387221 0.03001476 0.31381860 -0.05234635

trav -0.053872207 1.00000000 0.43551739 -0.39110224 0.48245271

inc 0.030014760 0.43551739 1.00000000 0.40750763 0.13098212

employ 0.313818596 -0.39110224 0.40750763 1.00000000 -0.29298185

pop -0.052346346 0.48245271 0.13098212 -0.29298185 1.00000000

hs 0.271600526 -0.37172627 0.46178058 0.79015464 -0.36499680

cd 0.115536088 0.43860417 0.72866538 0.40355171 0.06571017

married -0.035788812 -0.41763633 0.01724437 0.25358756 -0.04439305

dens 0.087986478 0.34284535 0.14024149 -0.04142778 -0.07757156

loc -0.097301228 -0.35317650 -0.31887167 0.03375986 -0.36762823

hs cd married dens loc

claims -0.17724532 0.45944409 -0.49939396 0.43043315 -0.400457933

geog -0.13071675 -0.42212502 0.27285194 -0.28043756 0.365874783

area 0.10783987 -0.11257946 0.11746372 -0.17904795 -0.054876329

age 0.20067916 -0.00128792 -0.06583393 -0.02662447 -0.001836416

age65 -0.02037537 -0.18151542 -0.07977184 0.02215157 -0.016461950

age85 0.27160053 0.11553609 -0.03578881 0.08798648 -0.097301228

trav -0.37172627 0.43860417 -0.41763633 0.34284535 -0.353176502

inc 0.46178058 0.72866538 0.01724437 0.14024149 -0.318871666

employ 0.79015464 0.40355171 0.25358756 -0.04142778 0.033759863

pop -0.36499680 0.06571017 -0.04439305 -0.07757156 -0.367628234

hs 1.00000000 0.40159564 0.31180933 -0.08652042 0.070443398

cd 0.40159564 1.00000000 -0.41657735 0.57187024 -0.408847966

married 0.31180933 -0.41657735 1.00000000 -0.84457985 0.200510171

dens -0.08652042 0.57187024 -0.84457985 1.00000000 -0.289775527

loc 0.07044340 -0.40884797 0.20051017 -0.28977553 1.000000000

> library(Rcmdr)

Loading required package: splines

Loading required package: RcmdrMisc

Loading required package: car

Loading required package: sandwich

Rcmdr Version 2.1-4

> vif(model2)

GVIF Df GVIF^(1/(2\*Df))

geog 21.993150 3 1.673842

area 5.093877 1 2.256962

age 5.184230 1 2.276891

age65 13.685086 1 3.699336

lnage85 12.446787 1 3.528000

trav 170.451480 1 13.055707

t2 141.101281 1 11.878606

inc 13.666305 1 3.696797

lnemploy 8.563757 1 2.926390

pop 2.972113 1 1.723982

lnhs 8.537268 1 2.921860

cd 9.023241 1 3.003871

married 2.550634 1 1.597070

dens 5.285861 1 2.299100