```
-------------------------------------------------------------------------------
      log:  E:\KURSER\Logistisk\Forår 2006\stata2.log
  log type:  text
 opened on:  14 Mar 2006, 10:30:32
. use fram,clear
. * definition af nye variable og labels til disse
. generate chdever=chd>1 if( chd!=.)
. generate age4=(age>48)+(age>52)+(age>56) if( age!=.)
. label var age4 "age i fire grupper"
. label def agegroups 0 "0:45-48"   1   "1:49-52"    2 "2:53-56"   3   "3:56+
>  "
. label val age4 agegroups
.
. generate sys160=sbp>160 if( sbp!=.)
. generate smoke=cig>0 if( cig!=.)
(1 missing value generated)
.
. drop if chd==1
(43 observations deleted)
.
. * vi ønsker sex=2 dvs kvinder som reference
. char sex[omit] 2
. char sys160[omit] 0
.
. xi:logit chdever i.sys160 i.sex
i.sys160          _Isys160_0-1        (naturally coded; _Isys160_0 omitted)
i.sex             _Isex_1-2           (naturally coded; _Isex_2 omitted)
Iteration 0:   log likelihood = -675.62283
Iteration 1:   log likelihood = -639.93851
Iteration 2:   log likelihood = -638.68006
Iteration 3:   log likelihood =  -638.6787
Logistic regression                               Number of obs   =       1363
                                                  LR chi2(2)      =      73.89
                                                  Prob > chi2     =     0.0000
Log likelihood =  -638.6787                       Pseudo R2       =     0.0547
------------------------------------------------------------------------------
     chdever |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  _Isys160_1 |   1.075291   .1536891     7.00   0.000     .7740655    1.376516
     _Isex_1 |   .8749646   .1457309     6.00   0.000     .5893373    1.160592
       _cons |  -2.170322   .1279629   -16.96   0.000    -2.421124   -1.919519
------------------------------------------------------------------------------
. predict fitted if e(sample)
(option p assumed; Pr(chdever))
. table sys160 sex if e(sample), c(sum fitted sum chdever)
----------------------------
           |       sex
   sys160 |     male    female
----------+-----------------
        0 | 114.1371  52.86289
          |      117        50
          |
        1 | 49.86289  51.13711
          |       47        54
----------------------------
.
. tabodds chdever age4,w or
-------------------------------------------------------------------------------
           |                                 odds           Woolf
      age4 |      cases     controls      ratio      [95% Conf. Interval]
-----------+-------------------------------------------------------------------
    0:45-48 |         51          308    1.00000        0.65768   1.52049
    1:49-52 |         61          298    1.23622        0.82490   1.85263
    2:53-56 |         64          254    1.52169        1.01629   2.27842
      3:56+ |         92          235    2.36429        1.61367   3.46406
-------------------------------------------------------------------------------
Test of homogeneity (equal odds): chi2(3)  =    23.27
                                  Pr>chi2  =   0.0000
Score test for trend of odds:     chi2(1)  =    21.64
                                  Pr>chi2  =   0.0000
. * med age4=1 dvs 49-52 som reference
. tabodds chdever age4,w or base(2)
-------------------------------------------------------------------------------
           |                                 odds           Woolf
      age4 |      cases     controls      ratio      [95% Conf. Interval]
-----------+-------------------------------------------------------------------
    0:45-48 |         51          308    0.80892        0.53977   1.21227
    1:49-52 |         61          298    1.00000        0.67738   1.47628
    2:53-56 |         64          254    1.23093        0.83457   1.81552
      3:56+ |         92          235    1.91252        1.32632   2.75781
-------------------------------------------------------------------------------
Test of homogeneity (equal odds): chi2(3)  =    23.27
                                  Pr>chi2  =   0.0000
Score test for trend of odds:     chi2(1)  =    21.64
                                  Pr>chi2  =   0.0000
.
```





```
. char age4[omit] 0
. xi: logit chdever i.age4
i.age4            _Iage4_0-3          (naturally coded; _Iage4_0 omitted)
Iteration 0:   log likelihood = -675.62283
Iteration 1:   log likelihood = -664.52107
Iteration 2:   log likelihood = -664.32526
Iteration 3:   log likelihood = -664.32522
Logistic regression                               Number of obs   =       1363
                                                  LR chi2(3)      =      22.60
                                                  Prob > chi2     =     0.0000
Log likelihood = -664.32522                       Pseudo R2       =     0.0167
------------------------------------------------------------------------------
     chdever |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    _Iage4_1 |   .2120545   .2064067     1.03   0.304    -.1924952    .6166043
    _Iage4_2 |    .419823   .2059529     2.04   0.042     .0161627    .8234833
    _Iage4_3 |   .8604772   .1948832     4.42   0.000     .4785131    1.242441
       _cons |  -1.798274   .1511774   -11.90   0.000    -2.094576   -1.501972
------------------------------------------------------------------------------
. xi: logit chdever i.age4,or
i.age4            _Iage4_0-3          (naturally coded; _Iage4_0 omitted)
Iteration 0:   log likelihood = -675.62283
Iteration 1:   log likelihood = -664.52107
Iteration 2:   log likelihood = -664.32526
Iteration 3:   log likelihood = -664.32522
Logistic regression                               Number of obs   =       1363
                                                  LR chi2(3)      =      22.60
                                                  Prob > chi2     =     0.0000
Log likelihood = -664.32522                       Pseudo R2       =     0.0167
------------------------------------------------------------------------------
     chdever | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    _Iage4_1 |   1.236215   .2551632     1.03   0.304     .8248982    1.852626
    _Iage4_2 |   1.521692   .3133969     2.04   0.042     1.016294    2.278422
    _Iage4_3 |   2.364289   .4607602     4.42   0.000     1.613673     3.46406
------------------------------------------------------------------------------
. testparm _Iage4*
 ( 1)  _Iage4_1 = 0
 ( 2)  _Iage4_2 = 0
 ( 3)  _Iage4_3 = 0
           chi2(  3) =   22.74
         Prob > chi2 =    0.0000
.
. * med age4=1 dvs 49-52 som reference
. char age4[omit] 1
. xi: logit chdever i.age4
i.age4            _Iage4_0-3          (naturally coded; _Iage4_1 omitted)
Iteration 0:   log likelihood = -675.62283
Iteration 1:   log likelihood = -664.52107
Iteration 2:   log likelihood = -664.32526
Iteration 3:   log likelihood = -664.32522
Logistic regression                               Number of obs   =       1363
                                                  LR chi2(3)      =      22.60
                                                  Prob > chi2     =     0.0000
Log likelihood = -664.32522                       Pseudo R2       =     0.0167
------------------------------------------------------------------------------
     chdever |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    _Iage4_0 |  -.2120545   .2064067    -1.03   0.304    -.6166043    .1924952
    _Iage4_2 |   .2077684   .1982704     1.05   0.295    -.1808344    .5963713
    _Iage4_3 |   .6484227   .1867459     3.47   0.001     .2824075    1.014438
       _cons |   -1.58622   .1405317   -11.29   0.000    -1.861657   -1.310783
------------------------------------------------------------------------------
. xi: logit chdever i.age4,or
i.age4            _Iage4_0-3          (naturally coded; _Iage4_1 omitted)
Iteration 0:   log likelihood = -675.62283
Iteration 1:   log likelihood = -664.52107
Iteration 2:   log likelihood = -664.32526
Iteration 3:   log likelihood = -664.32522
Logistic regression                               Number of obs   =       1363
                                                  LR chi2(3)      =      22.60
                                                  Prob > chi2     =     0.0000
Log likelihood = -664.32522                       Pseudo R2       =     0.0167
------------------------------------------------------------------------------
     chdever | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    _Iage4_0 |   .8089206   .1669667    -1.03   0.304     .5397742    1.212271
    _Iage4_2 |   1.230928   .2440566     1.05   0.295     .8345735    1.815519
    _Iage4_3 |   1.912522   .3571556     3.47   0.001     1.326319    2.757813
------------------------------------------------------------------------------
. testparm _Iage4*
 ( 1)  _Iage4_0 = 0
 ( 2)  _Iage4_2 = 0
 ( 3)  _Iage4_3 = 0
           chi2(  3) =   22.74
         Prob > chi2 =    0.0000
```

```
.
.
. logit chdever age4
Iteration 0:   log likelihood = -675.62283
Iteration 1:   log likelihood = -664.85332
Iteration 2:   log likelihood =   -664.754
Iteration 3:   log likelihood = -664.75399
Logistic regression                                     Number of obs   =       1363
                                                        LR chi2(1)      =      21.74
                                                        Prob > chi2     =     0.0000
Log likelihood = -664.75399                             Pseudo R2       =     0.0161
------------------------------------------------------------------------------
     chdever |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        age4 |   .2860376    .061997     4.61   0.000     .1645258    .4075494
       _cons |  -1.853176   .1240054   -14.94   0.000    -2.096222    -1.61013
------------------------------------------------------------------------------
. logit chdever age4,or
Iteration 0:   log likelihood = -675.62283
Iteration 1:   log likelihood = -664.85332
Iteration 2:   log likelihood =   -664.754
Iteration 3:   log likelihood = -664.75399
Logistic regression                                     Number of obs   =       1363
                                                        LR chi2(1)      =      21.74
                                                        Prob > chi2     =     0.0000
Log likelihood = -664.75399                             Pseudo R2       =     0.0161
------------------------------------------------------------------------------
     chdever | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        age4 |   1.331143   .0825268     4.61   0.000     1.178834     1.50313
------------------------------------------------------------------------------
.
. quietly xi: logit chdever i.age4
. estimates store model1
. quietly logit chdever age4
. estimates store model2
.
. lrtest model1 model2
Likelihood-ratio test                                 LR chi2(2)  =      0.86
(Assumption: model2 nested in model1)                 Prob > chi2 =    0.6513
.
. logit chdever age
Iteration 0:   log likelihood = -675.62283
Iteration 1:   log likelihood =  -665.1754
Iteration 2:   log likelihood = -665.08236
Iteration 3:   log likelihood = -665.08235
Logistic regression                                     Number of obs   =       1363
                                                        LR chi2(1)      =      21.08
                                                        Prob > chi2     =     0.0000
Log likelihood = -665.08235                             Pseudo R2       =     0.0156
------------------------------------------------------------------------------
     chdever |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         age |   .0658098   .0144649     4.55   0.000     .0374591    .0941605
       _cons |  -4.884311   .7737227    -6.31   0.000     -6.40078   -3.367842
------------------------------------------------------------------------------
. logit chdever age,or
Iteration 0:   log likelihood = -675.62283
Iteration 1:   log likelihood =  -665.1754
Iteration 2:   log likelihood = -665.08236
Iteration 3:   log likelihood = -665.08235
Logistic regression                                     Number of obs   =       1363
                                                        LR chi2(1)      =      21.08
                                                        Prob > chi2     =     0.0000
Log likelihood = -665.08235                             Pseudo R2       =     0.0156
------------------------------------------------------------------------------
     chdever | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         age |   1.068024   .0154488     4.55   0.000      1.03817    1.098736
------------------------------------------------------------------------------
.
. generate agec50=age-50
.
. logit chdever agec50
Iteration 0:   log likelihood = -675.62283
Iteration 1:   log likelihood =  -665.1754
Iteration 2:   log likelihood = -665.08236
Iteration 3:   log likelihood = -665.08235
Logistic regression                                     Number of obs   =       1363
                                                        LR chi2(1)      =      21.08
                                                        Prob > chi2     =     0.0000
Log likelihood = -665.08235                             Pseudo R2       =     0.0156
------------------------------------------------------------------------------
     chdever |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
      agec50 |   .0658098   .0144649     4.55   0.000     .0374591    .0941605
```





```
       _cons |  -1.593821   .0834682   -19.09   0.000    -1.757416   -1.430226
------------------------------------------------------------------------------
. logit chdever agec50,or
Iteration 0:   log likelihood = -675.62283
Iteration 1:   log likelihood =  -665.1754
Iteration 2:   log likelihood = -665.08236
Iteration 3:   log likelihood = -665.08235
Logistic regression                                     Number of obs   =       1363
                                                        LR chi2(1)      =      21.08
                                                        Prob > chi2     =     0.0000
Log likelihood = -665.08235                             Pseudo R2       =     0.0156
------------------------------------------------------------------------------
     chdever | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
      agec50 |   1.068024   .0154488     4.55   0.000      1.03817    1.098736
------------------------------------------------------------------------------
.
. xi: logit chdever i.sys160 i.sex  i.age4
i.sys160          _Isys160_0-1        (naturally coded; _Isys160_0 omitted)
i.sex             _Isex_1-2           (naturally coded; _Isex_2 omitted)
i.age4            _Iage4_0-3          (naturally coded; _Iage4_1 omitted)
Iteration 0:   log likelihood = -675.62283
Iteration 1:   log likelihood = -632.22304
Iteration 2:   log likelihood = -630.46262
Iteration 3:   log likelihood = -630.45957
Logistic regression                                     Number of obs   =       1363
                                                        LR chi2(5)      =      90.33
                                                        Prob > chi2     =     0.0000
Log likelihood = -630.45957                             Pseudo R2       =     0.0668
------------------------------------------------------------------------------
     chdever |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  _Isys160_1 |   1.018946   .1560463     6.53   0.000     .7131006    1.324791
     _Isex_1 |   .8750335   .1470561     5.95   0.000     .5868089    1.163258
    _Iage4_0 |  -.1909343   .2120101    -0.90   0.368    -.6064665    .2245979
    _Iage4_2 |   .1128588   .2041105     0.55   0.580    -.2871903     .512908
    _Iage4_3 |   .5668704   .1921391     2.95   0.003     .1902846    .9434561
       _cons |  -2.293987   .1775661   -12.92   0.000     -2.64201   -1.945964
------------------------------------------------------------------------------
. xi: logit chdever i.sys160 i.sex i.age4, or
i.sys160          _Isys160_0-1        (naturally coded; _Isys160_0 omitted)
i.sex             _Isex_1-2           (naturally coded; _Isex_2 omitted)
i.age4            _Iage4_0-3          (naturally coded; _Iage4_1 omitted)
Iteration 0:   log likelihood = -675.62283
Iteration 1:   log likelihood = -632.22304
Iteration 2:   log likelihood = -630.46262
Iteration 3:   log likelihood = -630.45957
Logistic regression                                     Number of obs   =       1363
                                                        LR chi2(5)      =      90.33
                                                        Prob > chi2     =     0.0000
Log likelihood = -630.45957                             Pseudo R2       =     0.0668
------------------------------------------------------------------------------
     chdever | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  _Isys160_1 |   2.770273   .4322908     6.53   0.000     2.040308    3.761399
     _Isex_1 |   2.398956   .3527809     5.95   0.000     1.798241    3.200343
    _Iage4_0 |   .8261868     .17516    -0.90   0.368     .5452742    1.251819
    _Iage4_2 |   1.119474   .2284963     0.55   0.580     .7503689    1.670141
    _Iage4_3 |   1.762742   .3386917     2.95   0.003     1.209594    2.568844
------------------------------------------------------------------------------
.
. xi: logit chdever i.sys160 i.sex  age4
i.sys160          _Isys160_0-1        (naturally coded; _Isys160_0 omitted)
i.sex             _Isex_1-2           (naturally coded; _Isex_2 omitted)
Iteration 0:   log likelihood = -675.62283
Iteration 1:   log likelihood = -632.81559
Iteration 2:   log likelihood = -631.13031
Iteration 3:   log likelihood = -631.12727
Logistic regression                                     Number of obs   =       1363
                                                        LR chi2(3)      =      88.99
                                                        Prob > chi2     =     0.0000
Log likelihood = -631.12727                             Pseudo R2       =     0.0659
------------------------------------------------------------------------------
     chdever |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  _Isys160_1 |   1.005311   .1553793     6.47   0.000     .7007731    1.309849
     _Isex_1 |   .8790017   .1467993     5.99   0.000     .5912804    1.166723
        age4 |   .2470626   .0640018     3.86   0.000     .1216213    .3725039
       _cons |  -2.538678   .1652654   -15.36   0.000    -2.862592   -2.214764
------------------------------------------------------------------------------
. xi: logit chdever i.sys160 i.sex age4, or
i.sys160          _Isys160_0-1        (naturally coded; _Isys160_0 omitted)
i.sex             _Isex_1-2           (naturally coded; _Isex_2 omitted)
Iteration 0:   log likelihood = -675.62283
Iteration 1:   log likelihood = -632.81559
Iteration 2:   log likelihood = -631.13031
```

```
Iteration 3:   log likelihood = -631.12727
Logistic regression                               Number of obs   =       1363
                                                  LR chi2(3)      =      88.99
                                                  Prob > chi2     =     0.0000
Log likelihood = -631.12727                       Pseudo R2       =     0.0659
------------------------------------------------------------------------------
     chdever | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  _Isys160_1 |   2.732757   .4246137     6.47   0.000      2.01531    3.705613
     _Isex_1 |   2.408494   .3535652     5.99   0.000       1.8063    3.211451
        age4 |   1.280259   .0819389     3.86   0.000     1.129326    1.451364
------------------------------------------------------------------------------
.
. xi: logit chdever i.sys160 i.sex  agec50
i.sys160          _Isys160_0-1        (naturally coded; _Isys160_0 omitted)
i.sex             _Isex_1-2           (naturally coded; _Isex_2 omitted)
Iteration 0:   log likelihood = -675.62283
Iteration 1:   log likelihood = -632.80596
Iteration 2:   log likelihood = -631.11747
Iteration 3:   log likelihood = -631.11439
Logistic regression                               Number of obs   =       1363
                                                  LR chi2(3)      =      89.02
                                                  Prob > chi2     =     0.0000
Log likelihood = -631.11439                       Pseudo R2       =     0.0659
------------------------------------------------------------------------------
     chdever |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  _Isys160_1 |    1.01179   .1552317     6.52   0.000     .7075415    1.316039
     _Isex_1 |   .8801654   .1467988     6.00   0.000     .5924451    1.167886
      agec50 |   .0578884   .0149713     3.87   0.000     .0285452    .0872315
       _cons |  -2.320188   .1371945   -16.91   0.000    -2.589084   -2.051292
------------------------------------------------------------------------------
. xi: logit chdever i.sys160 i.sex agec50, or
i.sys160          _Isys160_0-1        (naturally coded; _Isys160_0 omitted)
i.sex             _Isex_1-2           (naturally coded; _Isex_2 omitted)
Iteration 0:   log likelihood = -675.62283
Iteration 1:   log likelihood = -632.80596
Iteration 2:   log likelihood = -631.11747
Iteration 3:   log likelihood = -631.11439
Logistic regression                               Number of obs   =       1363
                                                  LR chi2(3)      =      89.02
                                                  Prob > chi2     =     0.0000
Log likelihood = -631.11439                       Pseudo R2       =     0.0659
------------------------------------------------------------------------------
     chdever | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  _Isys160_1 |    2.75052    .426968     6.52   0.000     2.028997    3.728622
     _Isex_1 |   2.411299   .3539757     6.00   0.000     1.808405    3.215188
      agec50 |   1.059597   .0158635     3.87   0.000     1.028957    1.091149
------------------------------------------------------------------------------
. log close
      log:  E:\KURSER\Logistisk\Forår 2006\stata2.log
  log type:  text
 closed on:  14 Mar 2006, 10:30:33
------------------------------------------------------------------------------
```