```
                                                      ___  ____  ____  ____  ____(R)
                                                     /__    /    ____/   /    ____/
                                                    ___/   /   /___/   /   /___/
                                                      Statistics/Data Analysis

                                                         User: test

  ___  ____  ____  ____  ____ (R)
 /__    /   ____/   /   ____/
___/   /   /___/   /   /___/   13.0   Copyright 1985-2013 StataCorp LP
  Statistics/Data Analysis             StataCorp
                                       4905 Lakeway Drive
      MP - Parallel Edition            College Station, Texas 77845 USA
                                       800-STATA-PC        http://www.stata.com
                                       979-696-4600        stata@stata.com
                                       979-696-4601 (fax)

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                         IDRE-UCLA

  Notes:
        1.  (/v# option or -set maxvar-) 5000 maximum variables

 1 . use "C:\Users\pddes\Desktop\ae project 2\WHO Africa Panel Data.dta"

 2 . drop country_code doctors

 3 . save "C:\Users\pddes\Desktop\ae project 2\WHO Africa Panel Data.dta", replace
   file C:\Users\pddes\Desktop\ae project 2\WHO Africa Panel Data.dta saved

 4 . keep doctors
   variable doctors not found
   r(111);

 5 . do "C:\Users\pddes\Desktop\ae project 2\WHO Africa Panel Data.do"

 6 . *cleaning data
 7 . drop region doctors life_exp60 age519thinness age519obesity hospitals une_infant une_life une_in
   > ne_literacy une_school
   variable region not found
   r(111);

   end of do-file

   r(111);

 8 . xtset country_num year
         panel variable:  country_num (strongly balanced)
          time variable:  year, 2000 to 2016
                  delta:  1 unit

 9 .
10 . xtreg life_expect adult_mortality infant_mort age14mort alcohol bmi hepatitis measles polio diph
   >  doctors gni_capita gghed che_gdp une_pop une_hiv une_gni une_edu_spend i.year, fe
   variable doctors not found
   r(111);

11 .
12 . estimates store fixed
   last estimation results not found, nothing to store
   r(301);
```

```
13 .
14 . xtreg life_expect adult_mortality infant_mort age14mort alcohol bmi hepatitis measles polio diph
   >  doctors gni_capita gghed che_gdp une_pop une_hiv une_gni une_edu_spend i.year, re
variable doctors not found
r(111);

15 .
16 . estimates store random
last estimation results not found, nothing to store
r(301);

17 .
18 . hausman fixed random, sigmamore
estimation result fixed not found
r(111);

19 . xtset country_num year
       panel variable:  country_num (strongly balanced)
        time variable:  year, 2000 to 2016
                delta:  1 unit

20 .
21 . xtreg life_expect adult_mortality infant_mort age14mort alcohol bmi hepatitis measles polio diph
   >  gni_capita gghed che_gdp une_pop une_hiv une_gni une_edu_spend i.year, fe

Fixed-effects (within) regression               Number of obs      =       890
Group variable: country_num                     Number of groups   =       111

R-sq:  within  = 0.9797                         Obs per group: min =         1
       between = 0.9308                                        avg =       8.0
       overall = 0.9262                                        max =        14

                                                F(30,749)          =   1203.04
corr(u_i, Xb)  = 0.7189                         Prob > F           =    0.0000
```

life_expect	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
adult_mortality	-.038614	.0005538	-69.72	0.000	-.0397012	-.0375268
infant_mort	-42.77758	4.505838	-9.49	0.000	-51.62315	-33.932
age14mort	-152.8186	16.16631	-9.45	0.000	-184.5553	-121.0819
alcohol	.0137867	.0109787	1.26	0.210	-.007766	.0353393
bmi	-.2467772	.0776584	-3.18	0.002	-.3992313	-.0943232
hepatitis	-.0014865	.0009053	-1.64	0.101	-.0032638	.0002907
measles	.0100405	.0024414	4.11	0.000	.0052477	.0148332
polio	.0011732	.0030074	0.39	0.697	-.0047307	.0070771
diphtheria	-.0048754	.0032838	-1.48	0.138	-.0113219	.0015711
basic_water	.0041906	.0058338	0.72	0.473	-.007262	.0156432
gni_capita	3.42e-06	.0000225	0.15	0.879	-.0000408	.0000476
gghed	-.0826417	.0305164	-2.71	0.007	-.1425495	-.0227338
che_gdp	-.045382	.0157202	-2.89	0.004	-.0762429	-.014521
une_pop	-3.73e-06	3.54e-06	-1.06	0.292	-.0000107	3.21e-06
une_hiv	-.0570253	.024641	-2.31	0.021	-.1053988	-.0086517
une_gni	9.48e-06	.0000209	0.45	0.650	-.0000315	.0000505
une_edu_spend	.0430417	.0131566	3.27	0.001	.0172135	.06887
year						
2001	.2582378	.0540812	4.77	0.000	.1520689	.3644066
2002	.3151027	.0548009	5.75	0.000	.2075211	.4226842
2003	.3997189	.058494	6.83	0.000	.2848872	.5145505
2004	.5701967	.0621744	9.17	0.000	.4481398	.6922536
2005	.736396	.0696175	10.58	0.000	.5997273	.8730647
2006	.9053688	.0763755	11.85	0.000	.7554333	1.055304
2007	1.046454	.0820833	12.75	0.000	.8853131	1.207595
2008	1.169585	.0890231	13.14	0.000	.994821	1.34435
2009	1.32254	.0968737	13.65	0.000	1.132364	1.512717
2010	1.448559	.1030297	14.06	0.000	1.246298	1.65082

2011	1.623439	.1109539	14.63	0.000	1.405622	1.841257
2012	1.74626	.1170058	14.92	0.000	1.516562	1.975958
2013	1.920876	.1245512	15.42	0.000	1.676365	2.165387
_cons	82.881	1.905433	43.50	0.000	79.14038	86.62163
sigma_u	3.4724111					
sigma_e	.22636677					
rho	.99576824	(fraction of variance due to u_i)				

F test that all u_i=0: F(110, 749) = 161.40 Prob > F = 0.0000

```
22 .
23 . estimates store fixed

24 .
25 . xtreg life_expect adult_mortality infant_mort age14mort alcohol bmi hepatitis measles polio diph
>  gni_capita gghed che_gdp une_pop une_hiv une_gni une_edu_spend i.year, re
```

Random-effects GLS regression — Number of obs = 890
Group variable: **country_num** — Number of groups = 111

R-sq: within = 0.9756
between = 0.9716
overall = 0.9735

Obs per group: min = 1
avg = 8.0
max = 14

Wald chi2(30) = 31370.35
corr(u_i, X) = 0 (assumed) — Prob > chi2 = 0.0000

life_expect	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
adult_mortality	-.0396134	.0006323	-62.65	0.000	-.0408527	-.0383741
infant_mort	-57.91783	4.652903	-12.45	0.000	-67.03735	-48.7983
age14mort	-156.8811	18.0618	-8.69	0.000	-192.2816	-121.4806
alcohol	.0075592	.012087	0.63	0.532	-.0161309	.0312492
bmi	.2491593	.0595902	4.18	0.000	.1323646	.365954
hepatitis	-.0008642	.0010513	-0.82	0.411	-.0029248	.0011963
measles	.0102684	.0028495	3.60	0.000	.0046835	.0158533
polio	-.001255	.0035194	-0.36	0.721	-.0081529	.005643
diphtheria	-.0049315	.003838	-1.28	0.199	-.0124538	.0025909
basic_water	.0216604	.0058649	3.69	0.000	.0101653	.0331555
gni_capita	.0000324	.0000249	1.30	0.194	-.0000165	.0000812
gghed	.0705717	.0331599	2.13	0.033	.0055795	.1355639
che_gdp	-.0413348	.0176666	-2.34	0.019	-.0759608	-.0067089
une_pop	3.78e-07	2.17e-06	0.17	0.862	-3.88e-06	4.63e-06
une_hiv	-.0650407	.0206081	-3.16	0.002	-.1054319	-.0246495
une_gni	.0000248	.0000238	1.04	0.298	-.0000219	.0000716
une_edu_spend	.0241497	.0151516	1.59	0.111	-.005547	.0538464
year						
2001	.1509906	.0628093	2.40	0.016	.0278867	.2740946
2002	.1255386	.0618346	2.03	0.042	.004345	.2467322
2003	.1182394	.0630286	1.88	0.061	-.0052944	.2417732
2004	.1872846	.0631441	2.97	0.003	.0635244	.3110447
2005	.2454835	.0670738	3.66	0.000	.1140214	.3769457
2006	.2974137	.0693341	4.29	0.000	.1615214	.433306
2007	.3460705	.0706976	4.90	0.000	.2075058	.4846353
2008	.3635465	.0730178	4.98	0.000	.2204343	.5066586
2009	.4079732	.0765676	5.33	0.000	.2579035	.558043
2010	.445606	.0790484	5.64	0.000	.2906739	.6005381
2011	.5232636	.082489	6.34	0.000	.3615882	.6849391
2012	.5683583	.0854594	6.65	0.000	.400861	.7358556
2013	.646044	.0894465	7.22	0.000	.4707322	.8213559
_cons	69.72225	1.408661	49.50	0.000	66.96133	72.48318

```
       sigma_u |  1.0611028
       sigma_e |  .22636677
           rho |  .95647066   (fraction of variance due to u_i)
------------------------------------------------------------------------------
```

```
26 .
27 . estimates store random

28 .
29 . hausman fixed random, sigmamore

Note: the rank of the differenced variance matrix (13) does not equal the number of coefficients b
        be sure this is what you expect, or there may be problems computing the test.  Examine the
        estimators for anything unexpected and possibly consider scaling your variables so that th
        on a similar scale.
```

	Coefficients (b) fixed	(B) random	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
adult_mort~y	-.038614	-.0396134	.0009994	.0001549
infant_mort	-42.77758	-57.91783	15.14025	2.530458
age14mort	-152.8186	-156.8811	4.062509	5.906473
alcohol	.0137867	.0075592	.0062275	.0045218
bmi	-.2467772	.2491593	-.4959365	.069152
hepatitis	-.0014865	-.0008642	-.0006223	.0001649
measles	.0100405	.0102684	-.0002279	.0003405
polio	.0011732	-.001255	.0024281	.0003323
diphtheria	-.0048754	-.0049315	.0000561	.0004112
basic_water	.0041906	.0216604	-.0174698	.0035535
gni_capita	3.42e-06	.0000324	-.0000289	8.87e-06
gghed	-.0826417	.0705717	-.1532134	.0136807
che_gdp	-.045382	-.0413348	-.0040471	.0054177
une_pop	-3.73e-06	3.78e-07	-4.11e-06	3.54e-06
une_hiv	-.0570253	-.0650407	.0080155	.0203534
une_gni	9.48e-06	.0000248	-.0000154	5.87e-06
une_edu_sp~d	.0430417	.0241497	.018892	.0030986
2001bn.year	.2582378	.1509906	.1072472	.009811
2002.year	.3151027	.1255386	.189564	.0180557
2003.year	.3997189	.1182394	.2814794	.0274782
2004.year	.5701967	.1872846	.3829121	.0367985
2005.year	.736396	.2454835	.4909124	.0468808
2006.year	.9053688	.2974137	.6079551	.0570327
2007.year	1.046454	.3460705	.7003833	.0656621
2008.year	1.169585	.3635465	.8060389	.0749585
2009.year	1.32254	.4079732	.9145671	.0842869
2010.year	1.448559	.445606	1.002953	.0917528
2011.year	1.623439	.5232636	1.100176	.1010235
2012.year	1.74626	.5683583	1.177902	.1077641
2013.year	1.920876	.646044	1.274832	.1159058

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2(13) = (b-B)'[(V_b-V_B)^(-1)](b-B)
= 238.87
Prob>chi2 = 0.0000

```
30 . xtreg life_expect adult_mortality infant_mort age14mort alcohol bmi hepatitis measles polio diph
   >  gni_capita gghed che_gdp une_pop une_hiv une_gni une_edu_spend i.year, fe

Fixed-effects (within) regression               Number of obs      =       890
Group variable: country_num                     Number of groups   =       111

R-sq:  within  = 0.9797                         Obs per group: min =         1
       between = 0.9308                                        avg =       8.0
       overall = 0.9262                                        max =        14

                                                F(30,749)          =   1203.04
corr(u_i, Xb)  = 0.7189                         Prob > F           =    0.0000
```

life_expect	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
adult_mortality	-.038614	.0005538	-69.72	0.000	-.0397012	-.0375268
infant_mort	-42.77758	4.505838	-9.49	0.000	-51.62315	-33.932
age14mort	-152.8186	16.16631	-9.45	0.000	-184.5553	-121.0819
alcohol	.0137867	.0109787	1.26	0.210	-.007766	.0353393
bmi	-.2467772	.0776584	-3.18	0.002	-.3992313	-.0943232
hepatitis	-.0014865	.0009053	-1.64	0.101	-.0032638	.0002907
measles	.0100405	.0024414	4.11	0.000	.0052477	.0148332
polio	.0011732	.0030074	0.39	0.697	-.0047307	.0070771
diphtheria	-.0048754	.0032838	-1.48	0.138	-.0113219	.0015711
basic_water	.0041906	.0058338	0.72	0.473	-.007262	.0156432
gni_capita	3.42e-06	.0000225	0.15	0.879	-.0000408	.0000476
gghed	-.0826417	.0305164	-2.71	0.007	-.1425495	-.0227338
che_gdp	-.045382	.0157202	-2.89	0.004	-.0762429	-.014521
une_pop	-3.73e-06	3.54e-06	-1.06	0.292	-.0000107	3.21e-06
une_hiv	-.0570253	.024641	-2.31	0.021	-.1053988	-.0086517
une_gni	9.48e-06	.0000209	0.45	0.650	-.0000315	.0000505
une_edu_spend	.0430417	.0131566	3.27	0.001	.0172135	.06887
year						
2001	.2582378	.0540812	4.77	0.000	.1520689	.3644066
2002	.3151027	.0548009	5.75	0.000	.2075211	.4226842
2003	.3997189	.058494	6.83	0.000	.2848872	.5145505
2004	.5701967	.0621744	9.17	0.000	.4481398	.6922536
2005	.736396	.0696175	10.58	0.000	.5997273	.8730647
2006	.9053688	.0763755	11.85	0.000	.7554333	1.055304
2007	1.046454	.0820833	12.75	0.000	.8853131	1.207595
2008	1.169585	.0890231	13.14	0.000	.994821	1.34435
2009	1.32254	.0968737	13.65	0.000	1.132364	1.512717
2010	1.448559	.1030297	14.06	0.000	1.246298	1.65082
2011	1.623439	.1109539	14.63	0.000	1.405622	1.841257
2012	1.74626	.1170058	14.92	0.000	1.516562	1.975958
2013	1.920876	.1245512	15.42	0.000	1.676365	2.165387
_cons	82.881	1.905433	43.50	0.000	79.14038	86.62163
sigma_u	3.4724111					
sigma_e	.22636677					
rho	.99576824	(fraction of variance due to u_i)				

```
F test that all u_i=0:     F(110, 749) =   161.40              Prob > F = 0.0000
```

```
31 . outreg2 using test.doc, append ctitle(Main Model)
test.doc
dir : seeout

32 . xtreg life_expect adult_mortality infant_mort age14mort alcohol bmi hepatitis measles polio diph
>  gni_capita gghed che_gdp une_pop une_hiv une_gni une_edu_spend i.year, re

Random-effects GLS regression                   Number of obs      =       890
Group variable: country_num                     Number of groups   =       111

R-sq:  within  = 0.9756                         Obs per group: min =         1
       between = 0.9716                                        avg =       8.0
       overall = 0.9735                                        max =        14

                                                Wald chi2(30)      =  31370.35
corr(u_i, X)   = 0 (assumed)                    Prob > chi2        =    0.0000
```

life_expect	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
adult_mortality	-.0396134	.0006323	-62.65	0.000	-.0408527	-.0383741
infant_mort	-57.91783	4.652903	-12.45	0.000	-67.03735	-48.7983
age14mort	-156.8811	18.0618	-8.69	0.000	-192.2816	-121.4806
alcohol	.0075592	.012087	0.63	0.532	-.0161309	.0312492
bmi	.2491593	.0595902	4.18	0.000	.1323646	.365954
hepatitis	-.0008642	.0010513	-0.82	0.411	-.0029248	.0011963
measles	.0102684	.0028495	3.60	0.000	.0046835	.0158533
polio	-.001255	.0035194	-0.36	0.721	-.0081529	.005643
diphtheria	-.0049315	.003838	-1.28	0.199	-.0124538	.0025909
basic_water	.0216604	.0058649	3.69	0.000	.0101653	.0331555
gni_capita	.0000324	.0000249	1.30	0.194	-.0000165	.0000812
gghed	.0705717	.0331599	2.13	0.033	.0055795	.1355639
che_gdp	-.0413348	.0176666	-2.34	0.019	-.0759608	-.0067089
une_pop	3.78e-07	2.17e-06	0.17	0.862	-3.88e-06	4.63e-06
une_hiv	-.0650407	.0206081	-3.16	0.002	-.1054319	-.0246495
une_gni	.0000248	.0000238	1.04	0.298	-.0000219	.0000716
une_edu_spend	.0241497	.0151516	1.59	0.111	-.005547	.0538464
year						
2001	.1509906	.0628093	2.40	0.016	.0278867	.2740946
2002	.1255386	.0618346	2.03	0.042	.004345	.2467322
2003	.1182394	.0630286	1.88	0.061	-.0052944	.2417732
2004	.1872846	.0631441	2.97	0.003	.0635244	.3110447
2005	.2454835	.0670738	3.66	0.000	.1140214	.3769457
2006	.2974137	.0693341	4.29	0.000	.1615214	.433306
2007	.3460705	.0706976	4.90	0.000	.2075058	.4846353
2008	.3635465	.0730178	4.98	0.000	.2204343	.5066586
2009	.4079732	.0765676	5.33	0.000	.2579035	.558043
2010	.445606	.0790484	5.64	0.000	.2906739	.6005381
2011	.5232636	.082489	6.34	0.000	.3615882	.6849391
2012	.5683583	.0854594	6.65	0.000	.400861	.7358556
2013	.646044	.0894465	7.22	0.000	.4707322	.8213559
_cons	69.72225	1.408661	49.50	0.000	66.96133	72.48318
sigma_u	1.0611028					
sigma_e	.22636677					
rho	.95647066	(fraction of variance due to u_i)				

```
33 . outreg2 using test.doc, append ctitle(Model Estimation using Random Effects)
   test.doc
   dir : seeout

34 . huasman fixed random, sigmamore
   unrecognized command:  huasman
   r(199);

35 . hausman fixed random, sigmamore

   Note: the rank of the differenced variance matrix (13) does not equal the number of coefficients b
         be sure this is what you expect, or there may be problems computing the test.  Examine the
         estimators for anything unexpected and possibly consider scaling your variables so that th
         on a similar scale.
```

	Coefficients (b) fixed	(B) random	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
adult_mort~y	-.038614	-.0396134	.0009994	.0001549
infant_mort	-42.77758	-57.91783	15.14025	2.530458
age14mort	-152.8186	-156.8811	4.062509	5.906473
alcohol	.0137867	.0075592	.0062275	.0045218
bmi	-.2467772	.2491593	-.4959365	.069152
hepatitis	-.0014865	-.0008642	-.0006223	.0001649
measles	.0100405	.0102684	-.0002279	.0003405
polio	.0011732	-.001255	.0024281	.0003323
diphtheria	-.0048754	-.0049315	.0000561	.0004112
basic_water	.0041906	.0216604	-.0174698	.0035535
gni_capita	3.42e-06	.0000324	-.0000289	8.87e-06
gghed	-.0826417	.0705717	-.1532134	.0136807
che_gdp	-.045382	-.0413348	-.0040471	.0054177
une_pop	-3.73e-06	3.78e-07	-4.11e-06	3.54e-06
une_hiv	-.0570253	-.0650407	.0080155	.0203534
une_gni	9.48e-06	.0000248	-.0000154	5.87e-06
une_edu_sp~d	.0430417	.0241497	.018892	.0030986
2001bn.year	.2582378	.1509906	.1072472	.009811
2002.year	.3151027	.1255386	.189564	.0180557
2003.year	.3997189	.1182394	.2814794	.0274782
2004.year	.5701967	.1872846	.3829121	.0367985
2005.year	.736396	.2454835	.4909124	.0468808
2006.year	.9053688	.2974137	.6079551	.0570327
2007.year	1.046454	.3460705	.7003833	.0656621
2008.year	1.169585	.3635465	.8060389	.0749585
2009.year	1.32254	.4079732	.9145671	.0842869
2010.year	1.448559	.445606	1.002953	.0917528
2011.year	1.623439	.5232636	1.100176	.1010235
2012.year	1.74626	.5683583	1.177902	.1077641
2013.year	1.920876	.646044	1.274832	.1159058

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2(13) = (b-B)'[(V_b-V_B)^(-1)](b-B)
= 238.87
Prob>chi2 = 0.0000

```
36 . outreg2 using hausman.doc, replace ctitle(Results of Wu-Hausman Test)
   hausman.doc
   dir : seeout

37 . drop une_gni

38 . pwcorr adult_mortality infant_mort age14mort alcohol bmi hepatitis measles polio diphtheria basi
   >  gghed che_gdp une_pop une_hiv une_edu_spend, star(0.05) sig

             |  adult_~y infant~t age14m~t  alcohol      bmi hepati~s  measles
-------------+---------------------------------------------------------------
adult_mort~y |   1.0000 
             |
             |
 infant_mort |   0.8132*  1.0000 
             |   0.0000
             |
   age14mort |   0.7562*  0.9090*  1.0000 
             |   0.0000   0.0000
             |
     alcohol |  -0.2465* -0.4446* -0.3057*  1.0000 
             |   0.0000   0.0000   0.0000
             |
         bmi |  -0.5171* -0.6419* -0.6152*  0.2728*  1.0000 
             |   0.0000   0.0000   0.0000   0.0000
             |
   hepatitis |  -0.2769* -0.4257* -0.3889*  0.1190*  0.2916*  1.0000 
             |   0.0000   0.0000   0.0000   0.0000   0.0000
             |
     measles |  -0.5262* -0.7202* -0.6986*  0.2917*  0.4688*  0.6803*  1.0000 
             |   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000
             |
       polio |  -0.5380* -0.7286* -0.7008*  0.2898*  0.4413*  0.6932*  0.9242*
             |   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000
             |
  diphtheria |  -0.5300* -0.7207* -0.6941*  0.2943*  0.4462*  0.7221*  0.9232*
             |   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000
             |
 basic_water |  -0.7327* -0.8515* -0.8023*  0.4077*  0.6733*  0.3656*  0.6599*
             |   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000
             |
  gni_capita |  -0.5277* -0.5395* -0.4178*  0.3050*  0.4108*  0.1860*  0.3436*
             |   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000
             |
       gghed |  -0.4858* -0.5768* -0.4474*  0.5296*  0.4617*  0.1646*  0.3970*
             |   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000
             |
     che_gdp |  -0.1986* -0.2384* -0.1623*  0.3722*  0.2480*  0.0692*  0.2038*
             |   0.0000   0.0000   0.0000   0.0000   0.0000   0.0006   0.0000
             |
     une_pop |  -0.0615* -0.0040  -0.0330  -0.0378* -0.1662* -0.1205* -0.0158 
             |   0.0006   0.8260   0.0677   0.0376   0.0000   0.0000   0.3812
             |
     une_hiv |   0.6806*  0.3416*  0.2920* -0.0383  -0.1547* -0.0476* -0.1108*
             |   0.0000   0.0000   0.0000   0.0645   0.0000   0.0388   0.0000
             |
une_edu_sp~d |  -0.1471* -0.3187* -0.2830*  0.2160*  0.3124*  0.1498*  0.2701*
             |   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000
             |
```

	polio	diphth~a	basic_~r	gni_ca~a	gghed	che_gdp	une_pop
polio	**1.0000**						
diphtheria	**0.9645***	**1.0000**					
	0.0000						
basic_water	**0.6621***	**0.6517***	**1.0000**				
	0.0000	**0.0000**					
gni_capita	**0.3569***	**0.3557***	**0.5210***	**1.0000**			
	0.0000	**0.0000**	**0.0000**				
gghed	**0.4127***	**0.4096***	**0.5100***	**0.4248***	**1.0000**		
	0.0000	**0.0000**	**0.0000**	**0.0000**			
che_gdp	**0.2239***	**0.2242***	**0.2054***	**0.1274***	**0.6899***	**1.0000**	
	0.0000	**0.0000**	**0.0000**	**0.0000**	**0.0000**		
une_pop	**-0.0297**	**-0.0282**	**0.0289**	**-0.0389**	**-0.0812***	**-0.0710***	**1.0000**
	0.1008	**0.1197**	**0.1108**	**0.0566**	**0.0000**	**0.0001**	
une_hiv	**-0.1078***	**-0.0935***	**-0.2871***	**-0.1907***	**-0.0866***	**0.0249**	**-0.1023***
	0.0000	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.2338**	**0.0000**
une_edu_sp~d	**0.3143***	**0.2980***	**0.2711***	**0.2257***	**0.5216***	**0.3415***	**-0.1008***
	0.0000	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	une_hiv	une_ed~d
une_hiv	**1.0000**	
une_edu_sp~d	**0.1888***	**1.0000**
	0.0000	

39 .