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```
* This SAS program may be used to reproduce tables 1-6 in the manuscript titled *
* "Comparison of knowledge of HIV status and treatment coverage between citizens *
* and non-citizens: Botswana Combination Prevention Project (BCPP)" *
```

```
*****;
```

```
dm 'clear output; clear log'; options pageno=1;
```

```
*import csv data and create a temp sas dataset named, noncitizen;
```

```
data work.noncitizen;
```

```
%let _EFIERR_ = 0; /* set the ERROR detection macro variable */
```

```
infile '\\cdc.gov\project\CGH_DGHA_BCPP_Data\Clearance\Manuscript Data Release
```

```
Clearance\1_NonCitizen\Resubmit\bcpp_noncitizen_vs_citizen_v2.csv' delimiter = ',' MISSOVER
```

```
DSD lrecl=32767
```

```
firstobs=2 ;
```

```
informat participantid best32. community $15. area $15. gender $15. citizenshipstatus $15. agecat3 $15.
```

```
testvenue $15. hivstatus $15. hivposknow $15. onartattest $15. assessgroup $15. testyieldgroup $15. ;
```

```
format participantid best12. community $15. area $15. gender $15. citizenshipstatus $15. agecat3 $15.
```

```
testvenue $15. hivstatus $15. hivposknow $15. onartattest $15. assessgroup $15. testyieldgroup $15. ;
```

```
input participantid community $ area $ gender $ citizenshipstatus $ agecat3 $
```

```
testvenue $ hivstatus $ hivposknow $ onartattest $ assessgroup $ testyieldgroup $;
```

```
if _ERROR_ then call symputx('_EFIERR_',1); /* set ERROR detection macro variable */
```

```
run;
```

```
*** Table 1 ***;
```

```
title 'BCPP Non-Citizen vs. Citizen Public Release Data';
```

```
title2 'Table 1: Demographics by Citizenship Status';
```

```
proc freq data = noncitizen;
```

```
table (gender agecat3 testvenue)*citizenshipstatus / norow nopercnt;
```

```
where assessgroup = "Yes";
```

```
run;
```

```
proc surveyfreq data = noncitizen;
```

```
table (gender agecat3 testvenue)*citizenshipstatus / chisq1;
```

```
cluster community;
```

```
where assessgroup = "Yes";
```

```
run;
```

```
*** Table 2 ***;
```

```
title 'BCPP Non-Citizen vs. Citizen Public Release Data';
```

```
title2 'Table HIV-Positivity among non-citizens by community';
```

```
proc freq data = noncitizen;
```

```
table (community)*hivstatus / nocol nopercnt;
```

```
where assessgroup = "Yes" and citizenshipstatus = "Noncitizen";
```

```
run;
```

```
*** Table 3 ***;
```

```
title 'BCPP Non-Citizen vs. Citizen Public Release Data';
```

```
title2 'Table 3: Characteristics of HIV-Positive Non-Citizens and Citizens';
```

```
proc freq data = noncitizen;
```

```
table (gender agecat3 testvenue)*citizenshipstatus / norow nopercnt;
where assessgroup = "Yes" and hivstatus = "HIV+";
run;
```

```
proc surveyfreq data = noncitizen;
table (gender agecat3 testvenue)*citizenshipstatus / chisq1;
where assessgroup = "Yes" and hivstatus = "HIV+";
cluster community;
run;
```

```
*** Table 4 ***;
```

```
title 'BCPP Non-Citizen vs. Citizen Public Release Data';
title2 'Table 4: Association of sociodemographic variables with HIV infection';
title3 'Unadjusted Models';
%macro varlist (var=,reflevel=);
proc surveylogistic data=noncitizen;
class
    &var. (ref=&reflevel.)
/ param = ref;
model hivstatus (event='HIV+') = &var.;
cluster community;
where assessgroup = "Yes";
run;
%mend;
%varlist(var=gender, reflevel='Male');
%varlist(var=agecat3, reflevel='35-64');
%varlist(var=citizenshipstatus, reflevel='Citizen');
%varlist(var=area, reflevel='Rural');
```

```
title 'BCPP Non-Citizen vs. Citizen Public Release Data';
title2 'Table 4: Association of sociodemographic variables with HIV infection';
title3 'Full Model';
proc surveylogistic data=noncitizen;
class
    gender (ref='Male')
    agecat3 (ref='35-64')
    citizenshipstatus (ref='Citizen')
    area (ref='Rural')
/ param = ref;
model hivstatus (event='HIV+') = gender agecat3 citizenshipstatus area;
cluster community;
where assessgroup = "Yes";
run;
```

```
*** Table 5 ***;
```

```
title 'BCPP Non-Citizen vs. Citizen Public Release Data';
title2 'Table 5: Association of sociodemographic variables with prior knowledge of HIV-positive status';
title3 'among those assessed as HIV-positive';
title4 'Unadjusted Models';
%macro varlist (var=,reflevel=);
```

```

proc surveylogistic data=noncitizen;
class
    &var. (ref=&reflevel.)
    / param = ref;
model hivsposknow (event='Known HIV+') = &var.;
cluster community;
where assessgroup = "Yes" and hivstatus = "HIV+";
run;
%mend;
%varlist(var=gender, reflevel='Male');
%varlist(var=agecat3, reflevel='35-64');
%varlist(var=citizenshipstatus, reflevel='Citizen');
%varlist(var=area, reflevel='Rural');

title 'BCPP Non-Citizen vs. Citizen Public Release Data';
title2 'Table 5: Association of sociodemographic variables with prior knowledge of HIV-positive status';
title3 'among those assessed as HIV-positive';
title4 'Full Model';
proc surveylogistic data=noncitizen;
class
    gender (ref='Male')
    agecat3 (ref='35-64')
    citizenshipstatus (ref='Citizen')
    area (ref='Rural')
    / param = ref;
model hivsposknow (event='Known HIV+') = gender agecat3 citizenshipstatus area;
cluster community;
where assessgroup = "Yes" and hivstatus = "HIV+";
run;

*** Table 6 ***;
title 'BCPP Non-Citizen vs. Citizen Public Release Data';
title2 'Table 6: Association of sociodemographic variables to ART status';
title3 'among persons who had prior knowledge of HIV-positive status';
title4 'Unadjusted Models';
%macro varlist (var=,reflevel=);
proc surveylogistic data=noncitizen;
class
    &var. (ref=&reflevel.)
    / param = ref;
model onartattest (event='Yes') = &var.;
cluster community;
where assessgroup = "Yes" and hivstatus = "HIV+" and hivsposknow = "Known HIV+";
run;
%mend;
%varlist(var=gender, reflevel='Male');
%varlist(var=agecat3, reflevel='35-64');
%varlist(var=citizenshipstatus, reflevel='Citizen');
%varlist(var=area, reflevel='Rural');

```

```
title 'BCPP Non-Citizen vs. Citizen Public Release Data';
title2 'Table 6: Association of sociodemographic variables with prior knowledge of HIV-positive status';
title3 'among persons who had prior knowledge of HIV-positive status';
title4 'Full Model';
proc surveylogistic data=noncitizen;
class
  gender (ref='Male')
  agecat3 (ref='35-64')
  citizenshipstatus (ref='Citizen')
  area (ref='Rural')
/ param = ref;
model onartattest (event='Yes') = gender agecat3 citizenshipstatus area;
cluster community;
where assessgroup = "Yes" and hivstatus = "HIV+" and hivspoknow = "Known HIV+";
run;
```