# Stata do-file for ITN Use and Access Report

\*\*\* Stata Do-file for PMI Access:Use report using MIS or DHS datasets

\* (see www.vector-works.org/resources/llin-use-and-access-for-pmi-countries/)

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\*\* Goals: calculate three indicators –

\* 1) household ownership of any ITN;

\* 2) population access to ITN;

\* 3) population use of ITN the previous night

\* Step 1 - prep universal coverage indicators

\* in the household data file (HR) – generate a new hhid variable to assist with merging.

\* Note: very occasionally hv001 must be multiplied by 10,000 to accomodate longer hv002 strings.

 rename hhid hhidx

 gen hhid=(hv001\*1000)+hv002

 gen persid=hhid\*100+hv003

 foreach var of varlist hml10\_\*{

 gen itn\_`var' = `var'==1

 }

 egen nitn= rsum (itn\*)

 label var nitn "# of ITN in household"

 gen anyitn=nitn>0

 label var anyitn "hh has any ITN"

\*\* calculate variable for households with at least 1 ITN for 2 people (p2itn) before doing any merging, if you want

\* create de jure members 'person' from hv012

clonevar person=hv012

gen itnpers=nitn/person

label var itnpers "ITN per person in household"

\* SAVE the household data file (HR)

 save, replace

\* create a small dataset with only hhid, nitn, anyitn to merge into the household member dataset

 keep hhid nitn anyitn

 save nitn, replace

\* Step 2 - OPEN the household member data set (PR). Population Access MUST be calculated in the

\* hh member dataset to do the weighting correctly for individuals (and not by hh)

\* generate a separate, comparable hhid to match the datasets on

 rename hhid hhidx

 gen hhid=(hv001\*1000)+hv002

 gen persid=hhid\*100+hv003

\* merge the PR file and the new 'nitn' file to bring the nitn variable into the household member (PR) file

 merge m:1 hhid using nitn

 drop \_merge

\* generate the 'stayed in the household last night' (defacto members) variable

 gen stay=hv103==1

 label var stay "stayed in house last night"

\* rename the stratification variables -

 \*\* region (region or province);

 \*\* urban (urban or rural residence);

 \*\* ses (wealth quintile),

 \*\* irs (household was sprayed in the last 12 months)

 clonevar region=hv024

 clonevar urban=hv025

 clonevar ses=hv270

 clonevar irs=hv253

 clonevar month=hv006

 clonevar year=hv007

 clonevar age=hv105

\* Step 3 - Still in the household member (PR) file, calculate population access using the MERG method

 gen potuse=nitn\*2

 label var potuse "potential ITN users in hh"

 egen defacto=sum(stay), by(hhid)

 label var defacto "de facto population"

 bysort hhid: gen access2 = potuse/defacto

 replace access2=1 if potuse/defacto >1

 label var access2 "proportion in hh with access"

 \* gen the useitn variable

 gen useitn=hml12==1

\*\* set survey weights using cluster (hv001), strata (hv024) and household sampling weight (hv005)

 svyset hv001 [pw=hv005], strata(hv024)

 \*\* calculate national population access

 svy: mean access2 if stay==1

 \*\* calculate stratified population access, use 'logistic' command to assess significant differences from 1st result

 svy: mean access2 if stay==1, over(region)

 svy: logistic access2 i.region if stay==1

 svy: mean access2 if stay==1, over(ses)

 svy: logistic access2 i.ses if stay==1

 svy: mean access2 if stay==1, over(urban)

 svy: logistic access2 urban if stay==1

 svy: mean access2 if stay==1, over(irs)

 svy: logistic access2 i.irs if stay==1

\* Step 4 - still in the household member (PR) file, calculate the mean net use

 \*\* calculate national population use of ITNs

 svy: mean useitn if stay==1

 \*\* calculate stratified population use

 svy: mean useitn if stay==1, over(region)

 svy: logistic useitn i.region if stay==1

 svy: mean useitn if stay==1, over(ses)

 svy: logistic useitn i.ses if stay==1

 svy: mean useitn if stay==1, over(urban)

 svy: logistic useitn urban if stay==1

 svy: mean useitn if stay==1, over(irs)

 svy: logistic useitn i.irs if stay==1

 \* SAVE the household member file (PR)

 save, replace

\* Step 5 - CLOSE the household member file and OPEN the household file.

 \* rename the needed stratification variables -

 \*\* region (region or province);

 \*\* urban (urban or rural residence);

 \*\* ses (wealth quintile),

 \*\* irs (household was sprayed in the last 12 months)

 clonevar region=hv024

 clonevar urban=hv025

 clonevar ses=hv270

 clonevar irs=hv253

 clonevar month=hv006

 clonevar year=hv007

 save, replace

 \*\* calculate ownership of at least one ITN in household file

\*\* set survey weights using cluster (hv001), strata (hv024) and household sampling weight (hv005)

 svyset hv001 [pw=hv005], strata(hv024)

 \*\* calculate national household ownership of at least 1 ITN

 svy: mean anyitn

 \*\* calculate stratified household ownership of at least 1 ITN

 svy: mean anyitn, over(region)

 svy: logistic anyitn i.region

 svy: mean anyitn, over(ses)

 svy: logistic anyitn i.ses

 svy: mean anyitn, over(urban)

 svy: logistic anyitn urban

 svy: mean anyitn, over(irs)

 svy: logistic anyitn i.irs

 \*\* GENERATE ANY NET and NET ACCESS FOR PLACES LIKE MYANMAR

 \*\* in HR file

 clonevar numnet=hml1

 gen anynet=numnet>0

 keep hhid numnet anynet

 save numnet, replace

 \*\* open PR file

 merge m:1 hhid using numnet

 drop \_merge

 gen potusenet=numnet\*2

 label var potusenet "potential net users in hh"

 bysort hhid: gen accessnet = potusenet/defacto

 replace accessnet=1 if potusenet/defacto >1

 label var accessnet "proportion in hh with access to net of any kind"