\*SENEGAL

\*New variables.

COMPUTE logepg\_totall=LG10(epg+5).

COMPUTE logepg\_totpos=LG10(epg).

EXECUTE.

RECODE epg1 (0=0) (SYSMIS=SYSMIS) (MISSING=SYSMIS) (1 thru Highest=1) INTO Sm\_S1.

EXECUTE.

RECODE epg2 (0=0) (SYSMIS=SYSMIS) (MISSING=SYSMIS) (1 thru Highest=1) INTO Sm\_S2.

EXECUTE.

COMPUTE Sm1Sh2\_S1=Sm\_S1+Sh2.

EXECUTE.

IF (epg1>-1)epg1Cat=0.

IF (epg1>0)epg1Cat=1.

IF (epg1>=100)epg1Cat=2.

IF (epg1>=400)epg1Cat=3.

EXECUTE.

IF (S1Ngary\_parasites > -1 | S2Ngary\_parasites > -1 | S1Yague\_parasites > -1 | S2Yague\_parasites > -1) tricho=0.

IF (ID>10000 & S1Ngary\_eggcount>-1) tricho=0.

IF (S1Ngary\_parasites =3 | S2Ngary\_parasites =3 | S1Yague\_parasites =3 | S2Yague\_parasites =3) tricho =3.

IF (S1Ngary\_parasites > -1 | S2Ngary\_parasites > -1 | S1Yague\_parasites > -1 | S2Yague\_parasites > -1) ascaris=0.

IF (ID>10000 & S1Ngary\_eggcount>-1) ascaris=0.

IF (S1Ngary\_parasites =4 | S2Ngary\_parasites =4 | S1Yague\_parasites =4 | S2Yague\_parasites =4) ascaris=4.

IF (S1Ngary\_parasites =5 | S2Ngary\_parasites =5 | S1Yague\_parasites =5 | S2Yague\_parasites =5) tricho=3.

IF (S1Ngary\_parasites =5 | S2Ngary\_parasites =5 | S1Yague\_parasites =5 | S2Yague\_parasites =5) ascaris=4.

EXECUTE.

\*Table 1.

FREQUENCIES VARIABLES= Sm1 Sm\_S1 Sm\_S2 pcr\_sch

 /ORDER=ANALYSIS.

USE ALL.

COMPUTE filter\_$=(Sm1=1).

VALUE LABELS filter\_$ 0 'Not Selected' 1 'Selected'.

FORMATS filter\_$ (f1.0).

FILTER BY filter\_$.

EXECUTE.

EXAMINE VARIABLES=epg

 /STATISTICS DESCRIPTIVES

 /MISSING PAIRWISE

 /NOTOTAL.

USE ALL.

COMPUTE filter\_$=(Sm\_S1=1).

VALUE LABELS filter\_$ 0 'Not Selected' 1 'Selected'.

FORMATS filter\_$ (f1.0).

FILTER BY filter\_$.

EXECUTE.

EXAMINE VARIABLES=epg1

 /STATISTICS DESCRIPTIVES

 /MISSING PAIRWISE

 /NOTOTAL.

USE ALL.

COMPUTE filter\_$=(pcr\_sch=1).

VALUE LABELS filter\_$ 0 'Not Selected' 1 'Selected'.

FORMATS filter\_$ (f1.0).

FILTER BY filter\_$.

EXECUTE.

EXAMINE VARIABLES=ct\_sch

 /STATISTICS DESCRIPTIVES

 /MISSING PAIRWISE

 /NOTOTAL.

FILTER OFF.

USE ALL.

EXECUTE.

\*Table 2.

CROSSTABS

 /TABLES=Sm\_S1 BY pcr\_sch

 /FORMAT=AVALUE TABLES

 /CELLS=COUNT ROW COLUMN TOTAL

 /STATISTICS=KAPPA

 /COUNT ROUND CELL.

CROSSTABS

 /TABLES=Sm1 BY pcr\_sch

 /FORMAT=AVALUE TABLES

 /CELLS=COUNT ROW COLUMN TOTAL

 /STATISTICS=KAPPA

 /COUNT ROUND CELL.

USE ALL.

COMPUTE filter\_$=(pcr\_sch=1).

VALUE LABELS filter\_$ 0 'Not Selected' 1 'Selected'.

FORMATS filter\_$ (f1.0).

FILTER BY filter\_$.

EXECUTE.

EXAMINE VARIABLES=ct\_sch BY Sm\_S1

 /PLOT BOXPLOT HISTOGRAM NPPLOT

 /COMPARE VARIABLES

 /PERCENTILES(5,10,25,50,75,90,95) HAVERAGE

 /STATISTICS DESCRIPTIVES

 /CINTERVAL 95

 /MISSING LISTWISE

 /NOTOTAL.

NPTESTS

 /INDEPENDENT TEST (ct\_sch) GROUP (Sm\_S1)

 /MISSING SCOPE=ANALYSIS USERMISSING=EXCLUDE

 /CRITERIA ALPHA=0.05 CILEVEL=95.

EXAMINE VARIABLES=ct\_sch BY Sm1

 /PLOT BOXPLOT HISTOGRAM NPPLOT

 /COMPARE VARIABLES

 /PERCENTILES(5,10,25,50,75,90,95) HAVERAGE

 /STATISTICS DESCRIPTIVES

 /CINTERVAL 95

 /MISSING LISTWISE

 /NOTOTAL.

NPTESTS

 /INDEPENDENT TEST (ct\_sch) GROUP (Sm1)

 /MISSING SCOPE=ANALYSIS USERMISSING=EXCLUDE

 /CRITERIA ALPHA=0.05 CILEVEL=95.

EXAMINE VARIABLES=ct\_sch

 /COMPARE VARIABLES

 /PERCENTILES(5,10,25,50,75,90,95) HAVERAGE

 /STATISTICS DESCRIPTIVES

 /CINTERVAL 95

 /MISSING LISTWISE

 /NOTOTAL.

FILTER OFF.

USE ALL.

EXECUTE.

\*Fig 1.

NPTESTS

 /INDEPENDENT TEST (ct\_sch) GROUP (epgCat) KRUSKAL\_WALLIS(COMPARE=PAIRWISE) JONCKHEERE\_TERPSTRA(ORDER=aSCENDING COMPARE=PAIRWISE)

 /MISSING SCOPE=ANALYSIS USERMISSING=EXCLUDE

 /CRITERIA ALPHA=0.05 CILEVEL=95.

NPTESTS

 /INDEPENDENT TEST (ct\_sch) GROUP (epg1Cat) KRUSKAL\_WALLIS(COMPARE=PAIRWISE) JONCKHEERE\_TERPSTRA(ORDER=aSCENDING COMPARE=PAIRWISE)

 /MISSING SCOPE=ANALYSIS USERMISSING=EXCLUDE

 /CRITERIA ALPHA=0.05 CILEVEL=95.

CROSSTABS

 /TABLES=epgCat epg1Cat BY pcr\_sch

 /FORMAT=AVALUE TABLES

 /CELLS=COUNT

 /COUNT ROUND CELL.

\*Correlations between egg- and DNA-based infection intensities.

NONPAR CORR

 /VARIABLES=epg1 ct\_sch

 /PRINT=SPEARMAN TWOTAIL NOSIG

 /MISSING=PAIRWISE.

NONPAR CORR

 /VARIABLES=epg ct\_sch

 /PRINT=SPEARMAN TWOTAIL NOSIG

 /MISSING=PAIRWISE.

GRAPH

 /SCATTERPLOT(BIVAR)=epg1 WITH ct\_sch

 /MISSING=LISTWISE.

GRAPH

 /SCATTERPLOT(BIVAR)=epg WITH ct\_sch

 /MISSING=LISTWISE .

\*Table 3.

FREQUENCIES VARIABLES= Sm1Sh2

 /ORDER=ANALYSIS.

CROSSTABS

 /TABLES=pcr\_sch BY Sm1Sh2

 /FORMAT=AVALUE TABLES

 /STATISTICS=CHISQ

 /CELLS=COUNT

 /COUNT ROUND CELL.

CROSSTABS

 /TABLES=pcr\_sch BY SmSh9

 /FORMAT=AVALUE TABLES

 /STATISTICS=CHISQ

 /CELLS=COUNT

 /COUNT ROUND CELL.

COMPUTE filter\_$=(pcr\_sch=1).

VALUE LABELS filter\_$ 0 'Not Selected' 1 'Selected'.

FORMATS filter\_$ (f1.0).

FILTER BY filter\_$.

EXECUTE.

EXAMINE VARIABLES=ct\_sch BY Sm1Sh2

 /COMPARE VARIABLES

 /PERCENTILES(5,10,25,50,75,90,95) HAVERAGE

 /STATISTICS DESCRIPTIVES

 /CINTERVAL 95

 /MISSING LISTWISE

 /NOTOTAL.

EXECUTE.

EXAMINE VARIABLES=ct\_sch BY SmSh9

 /COMPARE VARIABLES

 /PERCENTILES(5,10,25,50,75,90,95) HAVERAGE

 /STATISTICS DESCRIPTIVES

 /CINTERVAL 95

 /MISSING LISTWISE

 /NOTOTAL.

EXECUTE.

USE ALL.

COMPUTE filter\_$=(Sm1=0).

VALUE LABELS filter\_$ 0 'Not Selected' 1 'Selected'.

FORMATS filter\_$ (f1.0).

FILTER BY filter\_$.

EXECUTE.

CROSSTABS

 /TABLES=pcr\_sch BY Sh2

 /FORMAT=AVALUE TABLES

 /STATISTICS=CHISQ KAPPA

 /CELLS=COUNT

 /COUNT ROUND CELL.

USE ALL.

COMPUTE filter\_$=(Sm1=0 & pcr\_sch=1).

VALUE LABELS filter\_$ 0 'Not Selected' 1 'Selected'.

FORMATS filter\_$ (f1.0).

FILTER BY filter\_$.

EXECUTE.

NPTESTS

 /INDEPENDENT TEST (ct\_sch) GROUP (Sh2)

 /MISSING SCOPE=ANALYSIS USERMISSING=EXCLUDE

 /CRITERIA ALPHA=0.05 CILEVEL=95.

COMPUTE filter\_$=(Sm1=1).

VALUE LABELS filter\_$ 0 'Not Selected' 1 'Selected'.

FORMATS filter\_$ (f1.0).

FILTER BY filter\_$.

EXECUTE.

CROSSTABS

 /TABLES=pcr\_sch BY Sh2

 /FORMAT=AVALUE TABLES

 /STATISTICS=CHISQ KAPPA

 /CELLS=COUNT

 /COUNT ROUND CELL.

USE ALL.

COMPUTE filter\_$=(Sm1=1 & pcr\_sch=1).

VALUE LABELS filter\_$ 0 'Not Selected' 1 'Selected'.

FORMATS filter\_$ (f1.0).

FILTER BY filter\_$.

EXECUTE.

NPTESTS

 /INDEPENDENT TEST (ct\_sch) GROUP (Sh2)

 /MISSING SCOPE=ANALYSIS USERMISSING=EXCLUDE

 /CRITERIA ALPHA=0.05 CILEVEL=95.

FILTER OFF.

USE ALL.

EXECUTE.

\*Table 4.

COMPUTE filter\_$=(Sm1=1 & pcr\_sch=1).

VALUE LABELS filter\_$ 0 'Not Selected' 1 'Selected'.

FORMATS filter\_$ (f1.0).

FILTER BY filter\_$.

EXECUTE.

SORT CASES BY epgCat.

SPLIT FILE LAYERED BY epgCat.

EXAMINE VARIABLES=ct\_sch BY Sh2

 /COMPARE VARIABLES

 /PERCENTILES(5,10,25,50,75,90,95) HAVERAGE

 /STATISTICS DESCRIPTIVES

 /CINTERVAL 95

 /MISSING LISTWISE

 /NOTOTAL.

NPTESTS

 /INDEPENDENT TEST (ct\_sch) GROUP (Sh2)

 /MISSING SCOPE=ANALYSIS USERMISSING=EXCLUDE

 /CRITERIA ALPHA=0.05 CILEVEL=95.

SPLIT FILE OFF.

NPTESTS

 /INDEPENDENT TEST (ct\_sch) GROUP (Sh2)

 /MISSING SCOPE=ANALYSIS USERMISSING=EXCLUDE

 /CRITERIA ALPHA=0.05 CILEVEL=95.

\*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\*KENYA

\*New variables.

COMPUTE logepg\_totall=LG10(epg\_m+1).

COMPUTE logepg\_totpos=LG10(epg\_m).

EXECUTE.

COMPUTE epg\_m2=MEAN(k2a, k2b).

VARIABLE LABELS epg\_m2 'Stool 2 mean Sm eggs per gram'.

EXECUTE.

COMPUTE epg\_m3=MEAN(k3a, k3b).

VARIABLE LABELS epg\_m3 'Stool 3 mean Sm eggs per gram'.

EXECUTE.

COMPUTE epg\_m12=MEAN(k1a, k1b, k2a, k2b).

VARIABLE LABELS epg\_m12 'Stool 1+2 mean Sm eggs per gram'.

EXECUTE.

RECODE epg\_m1 (0=0) (SYSMIS=SYSMIS) (MISSING=SYSMIS) (1 thru Highest=1) INTO Sm\_S1.

EXECUTE.

RECODE epg\_m2 (0=0) (SYSMIS=SYSMIS) (MISSING=SYSMIS) (1 thru Highest=1) INTO Sm\_S2.

EXECUTE.

RECODE epg\_m3 (0=0) (SYSMIS=SYSMIS) (MISSING=SYSMIS) (1 thru Highest=1) INTO Sm\_S3.

EXECUTE.

RECODE epg\_m12 (0=0) (SYSMIS=SYSMIS) (MISSING=SYSMIS) (1 thru Highest=1) INTO Sm\_S12.

EXECUTE.

IF (epg\_m1>-1)epg1Cat=0.

IF (epg\_m1>0)epg1Cat=1.

IF (epg\_m1>=100)epg1Cat=2.

IF (epg\_m1>=400)epg1Cat=3.

EXECUTE.

IF (epg\_m>-1)epgCat=0.

IF (epg\_m>0)epgCat=1.

IF (epg\_m>=100)epgCat=2.

IF (epg\_m>=400)epgCat=3.

EXECUTE.

\*Table 1.

FREQUENCIES VARIABLES= epg\_pos Sm\_S12 Sm\_S1 Sm\_S2 Sm\_S3 pcr\_sch

 /ORDER=ANALYSIS.

USE ALL.

COMPUTE filter\_$=(epg\_pos=1).

VALUE LABELS filter\_$ 0 'Not Selected' 1 'Selected'.

FORMATS filter\_$ (f1.0).

FILTER BY filter\_$.

EXECUTE.

EXAMINE VARIABLES=epg\_m

 /STATISTICS DESCRIPTIVES

 /MISSING PAIRWISE

 /NOTOTAL.

USE ALL.

COMPUTE filter\_$=(Sm\_S1=1).

VALUE LABELS filter\_$ 0 'Not Selected' 1 'Selected'.

FORMATS filter\_$ (f1.0).

FILTER BY filter\_$.

EXECUTE.

EXAMINE VARIABLES=epg\_m1

 /STATISTICS DESCRIPTIVES

 /MISSING PAIRWISE

 /NOTOTAL.

USE ALL.

COMPUTE filter\_$=(Sm\_S12=1).

VALUE LABELS filter\_$ 0 'Not Selected' 1 'Selected'.

FORMATS filter\_$ (f1.0).

FILTER BY filter\_$.

EXECUTE.

EXAMINE VARIABLES=epg\_m12

 /STATISTICS DESCRIPTIVES

 /MISSING PAIRWISE

 /NOTOTAL.

USE ALL.

COMPUTE filter\_$=(pcr\_sch=1).

VALUE LABELS filter\_$ 0 'Not Selected' 1 'Selected'.

FORMATS filter\_$ (f1.0).

FILTER BY filter\_$.

EXECUTE.

EXAMINE VARIABLES=ct\_sch

 /STATISTICS DESCRIPTIVES

 /MISSING PAIRWISE

 /NOTOTAL.

FILTER OFF.

USE ALL.

EXECUTE.

\*Table 2.

CROSSTABS

 /TABLES=Sm\_S1 BY pcr\_sch

 /FORMAT=AVALUE TABLES

 /STATISTICS=KAPPA

 /CELLS=COUNT ROW COLUMN TOTAL

 /COUNT ROUND CELL.

CROSSTABS

 /TABLES=Sm\_S12 BY pcr\_sch

 /FORMAT=AVALUE TABLES

 /STATISTICS=KAPPA

 /CELLS=COUNT ROW COLUMN TOTAL

 /COUNT ROUND CELL.

CROSSTABS

 /TABLES=epg\_pos BY pcr\_sch

 /FORMAT=AVALUE TABLES

 /STATISTICS=KAPPA

 /CELLS=COUNT ROW COLUMN TOTAL

 /COUNT ROUND CELL.

USE ALL.

COMPUTE filter\_$=(pcr\_sch=1).

VALUE LABELS filter\_$ 0 'Not Selected' 1 'Selected'.

FORMATS filter\_$ (f1.0).

FILTER BY filter\_$.

EXECUTE.

EXAMINE VARIABLES=ct\_sch BY Sm\_S1

 /PLOT BOXPLOT HISTOGRAM NPPLOT

 /COMPARE VARIABLES

 /PERCENTILES(5,10,25,50,75,90,95) HAVERAGE

 /STATISTICS DESCRIPTIVES

 /CINTERVAL 95

 /MISSING LISTWISE

 /NOTOTAL.

NPTESTS

 /INDEPENDENT TEST (ct\_sch) GROUP (Sm\_S1)

 /MISSING SCOPE=ANALYSIS USERMISSING=EXCLUDE

 /CRITERIA ALPHA=0.05 CILEVEL=95.

EXAMINE VARIABLES=ct\_sch BY Sm\_S12

 /PLOT BOXPLOT HISTOGRAM NPPLOT

 /COMPARE VARIABLES

 /PERCENTILES(5,10,25,50,75,90,95) HAVERAGE

 /STATISTICS DESCRIPTIVES

 /CINTERVAL 95

 /MISSING LISTWISE

 /NOTOTAL.

NPTESTS

 /INDEPENDENT TEST (ct\_sch) GROUP (Sm\_S12)

 /MISSING SCOPE=ANALYSIS USERMISSING=EXCLUDE

 /CRITERIA ALPHA=0.05 CILEVEL=95.

EXAMINE VARIABLES=ct\_sch BY epg\_pos

 /PLOT BOXPLOT HISTOGRAM NPPLOT

 /COMPARE VARIABLES

 /PERCENTILES(5,10,25,50,75,90,95) HAVERAGE

 /STATISTICS DESCRIPTIVES

 /CINTERVAL 95

 /MISSING LISTWISE

 /NOTOTAL.

NPTESTS

 /INDEPENDENT TEST (ct\_sch) GROUP (epg\_pos)

 /MISSING SCOPE=ANALYSIS USERMISSING=EXCLUDE

 /CRITERIA ALPHA=0.05 CILEVEL=95.

EXAMINE VARIABLES=ct\_sch

 /COMPARE VARIABLES

 /PERCENTILES(5,10,25,50,75,90,95) HAVERAGE

 /STATISTICS DESCRIPTIVES

 /CINTERVAL 95

 /MISSING LISTWISE

 /NOTOTAL.

FILTER OFF.

USE ALL.

EXECUTE.

\*Fig 1.

\*Nonparametric Tests: Independent Samples.

NPTESTS

 /INDEPENDENT TEST (ct\_sch) GROUP (epgCat) KRUSKAL\_WALLIS(COMPARE=PAIRWISE) JONCKHEERE\_TERPSTRA(ORDER=DESCENDING COMPARE=PAIRWISE)

 /MISSING SCOPE=ANALYSIS USERMISSING=EXCLUDE

 /CRITERIA ALPHA=0.05 CILEVEL=95.

NPTESTS

 /INDEPENDENT TEST (ct\_sch) GROUP (epg1Cat) KRUSKAL\_WALLIS(COMPARE=PAIRWISE) JONCKHEERE\_TERPSTRA(ORDER=DESCENDING COMPARE=PAIRWISE)

 /MISSING SCOPE=ANALYSIS USERMISSING=EXCLUDE

 /CRITERIA ALPHA=0.05 CILEVEL=95.

CROSSTABS

 /TABLES=epgCat epg1Cat BY pcr\_sch

 /FORMAT=AVALUE TABLES

 /CELLS=COUNT

 /COUNT ROUND CELL.

\*Correlations between egg- and DNA-based infection intensities.

NONPAR CORR

 /VARIABLES=epg\_m1 ct\_sch

 /PRINT=SPEARMAN TWOTAIL NOSIG

 /MISSING=PAIRWISE.

NONPAR CORR

 /VARIABLES=epg\_m12 ct\_sch

 /PRINT=SPEARMAN TWOTAIL NOSIG

 /MISSING=PAIRWISE.

NONPAR CORR

 /VARIABLES=epg\_m ct\_sch

 /PRINT=SPEARMAN TWOTAIL NOSIG

 /MISSING=PAIRWISE.

GRAPH

 /SCATTERPLOT(BIVAR)=epg\_m1 WITH ct\_sch

 /MISSING=LISTWISE.

GRAPH

 /SCATTERPLOT(BIVAR)=epg\_m WITH ct\_sch

 /MISSING=LISTWISE.

\*Fig 2.

DATASET DECLARE school.

AGGREGATE

 /OUTFILE='school'

 /BREAK=school

 /prev\_zone\_first=FIRST(prevalence\_zone)

 /Sm\_S1\_pgt=PGT(Sm\_S1 0)

 /epg\_pos\_pgt=PGT(epg\_pos 0)

 /pcr\_sch\_pgt=PGT(pcr\_sch 0)

 /ct\_sch\_median=MEDIAN(ct\_sch)

 /N\_BREAK=N.

EXECUTE.

COMPUTE filter\_$=(N\_BREAK>14).

VALUE LABELS filter\_$ 0 'Not Selected' 1 'Selected'.

FORMATS filter\_$ (f1.0).

FILTER BY filter\_$.

EXECUTE.

GRAPH

 /SCATTERPLOT(OVERLAY)=Sm\_S1\_pgt epg\_pos\_pgt WITH pcr\_sch\_pgt pcr\_sch\_pgt (PAIR)

 /MISSING=LISTWISE.

CORRELATIONS

 /VARIABLES=Sm\_S1\_pgt epg\_pos\_pgt pcr\_sch\_pgt

 /PRINT=TWOTAIL NOSIG

 /MISSING=PAIRWISE.

NONPAR CORR

 /VARIABLES=Sm\_S1\_pgt epg\_pos\_pgt pcr\_sch\_pgt

 /PRINT=SPEARMAN TWOTAIL NOSIG

 /MISSING=PAIRWISE.