Dataset Integrity Check for the ESister Data Files

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December 30, 2014

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1 Standard Disclaimer

The intent of this DSIC is to provide confidence that the data distributed by the NIDDK repository is a true copy of the study data. Our intent is not to assess the integrity of the statistical analyses reported by study investigators. As with all statistical analyses of complex datasets, complete replication of a set of statistical results should not be expected in secondary analysis. This occurs for a number of reasons including differences in the handling of missing data, restrictions on cases included in samples for a particular analysis, software coding used to define complex variables, etc. Experience suggests that most discrepancies can ordinarily be resolved by consultation with the study data coordinating center (DCC), however this process is labor-intensive for both DCC and Repository staff. It is thus not our policy to resolve every discrepancy that is observed in an integrity check. Specifically, we do not attempt to resolve minor or inconsequential discrepancies with published results or discrepancies that involve complex analyses, unless NIDDK Repository staff suspect that the observed discrepancy suggests that the dataset may have been corrupted in storage, transmission, or processing by repository staff. We do, however, document in footnotes to the integrity check those instances in which our secondary analyses produced results that were not fully consistent with those reported in the target publication.

2 Study Background

The Stress Incontinence Surgical Treatment Efficacy Trial (SISTEr) conduced by the Urinary Incontinence Treatment Network (UITN), used urodynamic studies (UDS) in a randomized clinical trial to measure improved outcomes after surgery. UTIN is a network conducting research on the treatment of urinary incontinence, or accidental loss of urine. SISTEr compared two surgical procedures that use different mechanisms to treat SUI: the Burch colposuspension and the autologous fascia pubovaginal sling. The Burch procedure suspends the anterior vaginal vault with nonabsorbable sutures tied to the Coopers ligament. The autologous sling procedure provides suburethral support by transvaginal placement of a strip of autologous rectus fascia at the level of the bladder neck and proximal urethra. Overall treatment success required a negative pad test and no urinary incontinence on a 3-day diary. Stress specific success was defined as a negative stress test, no self reported SUI symptoms on MESA, and no retreatment for SUI. Two years after surgery, 66% of women with a sling and 49% with a Burch procedure were free of SUI, and 86% of women with a sling were satisfied, compared to 78% of the Burch group, although the sling procedure had a higher rate of side effects.

3 Archived Datasets

All SAS data files, as provided by the Data Coordinating Center (DCC), are located in the “Data\E_SISTER” folder in the data package. For this replication, variables were taken from the “esister_analysis” and “finlstat”, datasets. These datasets were analysis datasets created by the DCC.

4 Statistical Methods

Analyses were performed to duplicate results for the data published by Brubaker et al [1] in the The journal of urology in April 2012.

To verify the integrity of the three datasets, descriptive statistics of baseline characteristics were computed, by treatment group (Table B and Table D).

5 Results

Table 1 in the publication [1]: Table 1. Selected baseline characteristics of E-SISTEr subjects by randomization group. Table A lists the variables that were used in the replication and Table B compares the results calculated from the archived data file to the results published in Table 1. The results of the replication are very similar to the published results. The study group will correct the error with the number of Stage 2 Burch subjects noted in the table below.

Table 2 in the publication [1]: Table 2. Satisfaction at 5-year visit. Table C lists the variables that were used in the replication and Table D compares the results calculated from the archived data file to the results published in Table 2. The results of the replication are identical to the published results.

Table 3 in the publication [1]: Table 3. Patients requiring treatment for voiding dysfunction, urge incontinence or prolapsed. This table was not reviewed because the data was not included in the data package.

6 Conclusions

The NIDDK repository is confident that the ESister data files to be distributed are a copy of the manuscript data.

7 References

1. Brubaker L, Richter HE, Norton PA, Albo M Zyczynski HM, Chai TC, Zimmem P, Kraus S, Sirls L, Kusek JW, Stoddard A, Tennstedt S, Gormley EA (2012) 5-year continence rates, satisfaction and adverse events of burch urethropexy and fascial sling surgery for urinary incontinence. J Urol 187:1324-1330

Table A: Variables used to replicate Table 1: Selected baseline characteristics of E-SISTEr subjects by randomization group.

Table Variable	Variables Used in Replication from the ESISTER_Analysis Dataset
Mean pt age	age
No. racial and ethnicity group	hispanic
No. marital status	marstat
No. education	educ3
No. household income	h_inc
Mean kg/m2 body mass index	bmi
No. vaginal deliveries	v_del
No. prior UI surgery (before SISTEr)	uisurg
No. prolapse	stage
Mean total UDI score	udi_tot
Mean total IIQ score	iiq_tot
Mean incontinence episodes/day	ave_acc
Mean UI symptom index : Stress	stress_index
Mean UI symptom index : Urge	urge_index
Mean degrees Q-tip test angle: Resting	qtip_rst
Mean degrees Q-tip test angle: Straining	qtip_str
Mean degrees Q-tip test angle: Delta	qtip_delta
No. any medication for UUI or SUI	any_urge_sui_med
No. presence of urodynamic stress incontinence	usi
Mean Valsalva leak point pressure	vlpp_nored
Mean delta Valsalva leak point pressure	d_vlpp_nored
No. detrusor overactivity	detrusor

Table B: Comparison of values computed in integrity check to reference article Table 1 values

Characteristic	Burch [Manuscript]	Burch [DSIC]	Burch [Diff]	Sling [Manuscript]	Sling [DSIC]	Sling [Diff]
Mean pt age (SD)	53.3 (10.5)	53.3 (10.5)	0	52.3 (9.7)	52.3 (9.7)	0
No. racial and ethnicity group (%):*						
Hispanic	18 (8)	18 (8)	0	30 (12)	30 (12)	0
NonHispanic white	186 (78)	186 (78)	0	179 (73)	179 (74)	0
NonHispanic black	9 (4)	9 (4)	0	19 (8)	19 (8)	0
NonHispanic other	25 (10)	25 (11)	1%	15 (6)	15 (6)	0
No. marital status (%):						
Not married	68 (28)	68 (28)	0	78 (32)	78 (32)	0
Married/living as married	171 (72)	171 (72)	0	165 (68)	165 (68)	0
No. education (%):						
High school or less	75 (31)	75 (31)	0	80 (33)	80 (33)	0
Some training after high school	95 (40)	95 (40)	0	92 (38)	92 (38)	0
Baccalaureate or more	69 (29)	69 (29)	0	71 (29)	71 (29)	0
No. household income (%):						
Less than $20,000	41 (19)	41 (19)	0	39 (17)	39 (17)	0
$20,000–$49,999	64 (30)	64 (30)	0	67 (29)	67 (29)	0
$50,000–$79,999	45 (21)	45 (21)	0	50 (22)	50 (22)	0
$80,000+	63 (30)	63 (30)	0	73 (32)	73 (32)	0
Mean kg/m2 body mass index (SD)	29.7 (6.3)	29.7 (6.3)	0	29.9 (5.6)	29.9 (5.6)	0
No. vaginal deliveries (%):						
0	21 (9)	21 (9)	0	26 (11)	26 (11)	0
1–2	112 (47)	112 (47)	0	94 (39)	94 (39)	0
3+	106 (44)	106 (44)	0	123 (51)	123 (51)	0
No. prior UI surgery (before SISTEr) (%):						
No	201 (84)	201 (84)	0	208 (86)	208 (86)	0
Yes	38 (16)	38 (16)	0	35 (14)	35 (14)	0
No. prolapse (%):						
Stage 0/1	53 (22)	53 (22)	0	48 (20)	48 (20)	0
Stage 2	1,476 (61)	146 (61)	1330	152 (62)	152 (63)	0
Stage 3/4	40 (17)	40 (17)	0	43 (18)	43 (18)	0
Mean total UDI score (SD)	151.5 (49.4)	151.5 (49.4)	0	149.4 (46.1)	149.4 (46.1)	0
Mean total IIQ score (SD)	172.1 (102.8)	172.1 (102.8)	0	162.8 (98.3)	162.8 (98.3)	0
Mean incontinence episodes/day (SD)	3.3 (3.3)	3.3 (3.3)	0	3.0 (2.7)	3.0 (2.7)	0
Mean UI symptom index (SD):†						
Stress	71.7 (16.7)	71.7 (16.7)	0	70.5 (17.2)	70.5 (17.2)	0
Urge	36.9 (21.6)	36.9 (21.6)	0	35.5 (21.5)	35.5 (21.5)	0
Mean degrees Q-tip test angle (SD):						
Resting	15.9 (16.8)	15.9 (16.8)	0	14.8 (17.9)	14.8 (17.9)	0
Straining	61.1 (19.2)	61.2 (19.2)	0	59.7 (17.1)	59.7 (17.1)	0
Delta=straining-resting	45.3 (18.8)	45.3 (18.8)	0	44.9 (18.2)	44.9 (18.2)	0
No. any medication for UUI or SUI (%):						
No	183 (77)	173 (72)	10	174 (72)	170 (70)	4
Yes	56 (23)	66 (28)	-10	69 (28)	73 (30)	-4
No. presence of urodynamic stress incontinence (%):						
Yes	211 (91)	211 (88)	0	215 (90)	215 (88)	0
No	22 (9)	22 (9)	0	25 (10)	25 (10)	0
Mean Valsalva leak point pressure (SD)	114.8 (39.0)	114.8 (39.0)	0	120.4 (36.2)	120.4 (36.2)	0
Mean delta Valsalva leak point pressure (SD)	78.5 (38.6)	78.5 (38.6)	0	84.08 (33.8)	84.0 (33.8)	.08
No. detrusor overactivity (%)	25 (11)	25 (11)	0	16 (7)	16 (7)	0

Table C: Variables used to replicate Table 2: Satisfaction at 5-year visit.

Table Variable	Variables Used in Replication from the ESISTER_Analysis and Finlstat Datasets
Satisfaction	ESISTER_ANALYSIS.leak_60
Surgical retreatment	FINLSTAT. surg_fail160
Failure status	FINLSTAT. E_status60

Table D: Comparison of values computed in integrity check to reference article Table 2 values

Characteristic	Burch [Manuscript]	Burch [DSIC]	Burch [Diff]	Sling [Manuscript]	Sling [DSIC]	Sling [Diff]
All E-SISTEr respondents:						
Satisfied	126 (73)	126 (73)	0	148 (83)	148 (83)	0
Dissatisfied	46 (27)	46 (27)	0	31 (17)	31 (17)	0
Excluding woman with surgical re-treatment:						
Satisfied	115 (76)	115 (76)	0	145 (83)	145 (83)	0
Dissatisfied	37 (24)	37 (24)	0	30 (17)	30 (17)	0
Assuming those surgically re-treated were dissatisfied:						
Satisfied	115 (67)	115 (64)	0	145 (81)	145 (81)	0
Dissatisfied	57 (33)	65 (36)	0	34 (19)	35 (19)	0
Stratified by overall success:*						
Continence: Satisfied	42 (100)	42 (100)	0	57 (97)	57 (97)	0
Continence: Dissatisfied	0 (0)	0 (0)	0	2 (3)	2 (3)	0
Incontinence: Satisfied	84 (65)	84 (65)	0	88 (75)	88 (75)	0
Incontinence: Dissatisfied	45 (35)	45 (35)	0	29 (25)	29 (25)	0

```
*************************************************************************************************************************
***Program:
***Programmer: Corey Del Vecchio
***Date Created: 7/8/2013
***Purpose:
***
***
***
***Source of Request:
***Input Files:
***
***Output Files:
***
***History
***Updated by: Michael Spriggs
***Date Modified: 07/15/2014
*************************************************************************************************************************;

title1 "%sysfunc(getoption(sysin))";
title2 " ";

options nofmterr source2 mprint symbolgen spool;

libname sas_data "/prj/niddk/ims_analysis/ESISTER/private_orig_data/ESISTER NIDDK Repository/NIDDK Repository/Datasets";
LIBNAME myfmtlib '/prj/niddk/ims_analysis/ESISTER/private_created_data/';
data formatprint(drop=datatype fuzz language PREFIX MULT FILL NOEDIT TYPE SEXCL EEXCL HLO DECSEP DIG3SEP DEFAULT LENGTH MIN MAX);
  set myfmtlib.tmp_fmts_ds;

proc format library = myfmtlib;
proc format;
  value yesnof
        1="Yes"
        2="No"
        ;
  value casef
        ;

*** File containing macro for examining each dataset ***;
%include '/prj/niddk/ims_analysis/sas_macros/redaction_data_summary.sas';

%macro freqdata1(order=, invar=, level=, popvar=, totalvl=);

%if &totalvl.=null %then %do;
  proc freq data=table1 noprint;
       tables &invar*sling/out=data1 outpct;
       format _all_;
       run;

  data data1(keep=LEVEL sling name CHARALL ORDERER);
    set data1(rename=(&invar=LEVEL));
    length name $100 CHARALL $100;
    name=upcase("&invar");
    PCT_DISP=round(PCT_COL,1);
    CHARALL=compress(put(COUNT,8.))||" ("||compress(put(PCT_DISP,8.))||")";
    ORDERER=&order;
    if level in &level then output;
```

```
%end;
%else %do;
  proc freq data=table1 noprint;
        tables &invar*sling/out=data1 outpct;
        format _all_;
        where &popvar. in &totalvl.;
        run;

  data data1(keep=LEVEL sling name COUNT PCT_DISP ORDERER) total1(keep=accumer1 accumer2);
    set data1(rename=(&invar=LEVEL)) end=end1;
    length name $100;
    retain accumer1 accumer2;
    if _n_=1 then do;
      accumer1=0;
      accumer2=0;
    end;
    if sling=1 then accumer1=accumer1+count;
    else if sling=2 then accumer2=accumer2+count;
    name=upcase("&invar");
    PCT_DISP=round(PCT_COL,.1);
    ORDERER=&order;
    if level in &level then output data1;
    if end1 then output total1;

data total1(drop=accumer:);
  set total1;
  length sling total 8.;
  sling=1;
  total=accumer1;
  output;
  sling=2;
  total=accumer2;
  output;

data data1(drop=COUNT PCT_DISP total);
  merge data1 total1;
  by sling;
  length CHARALL $100;
  CHARALL=compress(put(COUNT,8.))||"/"||compress(put(total,8.))||" ("||compress(put(PCT_DISP,8.1))||")";


%end;
data accumfreq1;
  set accumfreq1 data1;

%mend freqdata1;

%macro meandata1(order=, invar=, roundvar=, digit=);
proc means data=table1 mean stddev noprint;
       var &invar;
       class sling;
       output out=data1 mean=mean stddev=stddev;
       run;

data data1(drop=_TYPE_ _FREQ_ mean stddev);
  set data1;
```

```
  length name CHARALL $100;
  name=upcase("&invar");
  mean=round(mean,&roundvar);
  stddev=round(stddev,&roundvar);
  CHARALL=compress(put(mean,8.&digit))||" ("||compress(put(stddev,8.&digit))||")";
  ORDERER=&order;

data accummean1;
  set accummean1 data1;

%mend meandata1;

%macro mediandata1(order=, invar=, roundvar=, digit=);
proc means data=table1 median p25 p75 noprint;
        var &invar;
        class sling;
        output out=data1 median=median p25=p25 p75=p75;
        run;

data data1(drop=_TYPE_ _FREQ_ median p25 p75);
  set data1;
  length name CHARALL $100;
  name=upcase("&invar");
  median=round(median,&roundvar);
  p25=round(p25,&roundvar);
  p75=round(p75,&roundvar);
  ORDERER=&order;
  CHARALL=compress(put(median,8.));
  output;
  ORDERER=ORDERER+1;
  CHARALL=compress(put(p25,8.)||"-"||put(p75,8.));
  output;

data accummedian1;
  set accummedian1 data1;

%mend mediandata1;

%macro freqdata2(order=, invar=, level=, popvar=, totalvl=);

%if &totalvl.=null %then %do;
  proc freq data=table2 noprint;
        tables &invar*sling/out=data2 outpct;
        format _all_;
        run;

  data data2(keep=LEVEL sling name CHARALL ORDERER);
    set data2(rename=(&invar=LEVEL));
    length name $100 CHARALL $100;
    name=upcase("&invar");
    PCT_DISP=round(PCT_COL,1);
    CHARALL=compress(put(COUNT,8.))||" ("||compress(put(PCT_DISP,8.))||")";
    ORDERER=&order;
    if level in &level then output;
%end;
%else %do;
```

```
  proc freq data=table2 noprint;
        tables &invar*sling/out=data2 outpct;
        format _all_;
        where &popvar. in &totalvl.;
        run;

  data data2(keep=LEVEL sling name COUNT PCT_DISP ORDERER) total2(keep=accumer1 accumer2);
    set data2(rename=(&invar=LEVEL)) end=end1;
    length name $100;
    retain accumer1 accumer2;
    if _n_=1 then do;
      accumer1=0;
      accumer2=0;
    end;
    if sling=1 then accumer1=accumer1+count;
    else if sling=2 then accumer2=accumer2+count;
    name=upcase("&invar");
    PCT_DISP=round(PCT_COL,.1);
    ORDERER=&order;
    if level in &level then output data2;
    if end1 then output total2;

data total2(drop=accumer:);
  set total2;
  length sling total 8.;
  sling=1;
  total=accumer1;
  output;
  sling=2;
  total=accumer2;
  output;

data data2(drop=COUNT PCT_DISP total);
  merge data2 total2;
  by sling;
  length CHARALL $100;
  CHARALL=compress(put(COUNT,8.))||"/"||compress(put(total,8.))||" ("||compress(put(PCT_DISP,8.))||")";


%end;
data accumfreq2;
  set accumfreq2 data2;

%mend freqdata2;

%macro meandata2(order=, invar=, roundvar=, digit=);
proc means data=table2 mean stddev noprint;
       var &invar;
       class sling;
       output out=data2 mean=mean stddev=stddev;
       run;

data data2(drop=_TYPE_ _FREQ_ mean stddev);
  set data2;
  length name CHARALL $100;
  name=upcase("&invar");
```

```
  mean=round(mean,&roundvar);
  stddev=round(stddev,&roundvar);
  CHARALL=compress(put(mean,8.&digit))||" ("||compress(put(stddev,8.&digit))||")";
  ORDERER=&order;

data accummean2;
  set accummean2 data2;

%mend meandata2;

%macro mediandata2(order=, invar=, roundvar=, digit=);
proc means data=table2 median p25 p75 noprint;
        var &invar;
        class sling;
        output out=data2 median=median p25=p25 p75=p75;
        run;

data data2(drop=_TYPE_ _FREQ_ median p25 p75);
  set data2;
  length name CHARALL $100;
  name=upcase("&invar");
  median=round(median,&roundvar);
  p25=round(p25,&roundvar);
  p75=round(p75,&roundvar);
  ORDERER=&order;
  CHARALL=compress(put(median,8.));
  output;
  ORDERER=ORDERER+1;
  CHARALL=compress(put(p25,8.)||"-"||put(p75,8.));
  output;

data accummedian2;
  set accummedian2 data2;

%mend mediandata2;


data accumfreq1 accummean1 accummedian1
     accumfreq2 accummean2 accummedian2;
  set _null_;

data table1;
  set SAS_DATA.esister_analysis ;
  if v_del=0 then v_del_new=0;
  if v_del in(1 2) then v_del_new=1;
  if v_del in(3 4 5 6 7 8 9 10) then v_del_new=3;
  if stage in(0 1) then stage_new=0;
  else if stage=2 then stage_new=2;
  else if stage in(3 4) then stage_new=3;

data table2temp;
  set SAS_DATA.finlstat;

proc sort data=table1;
  by AID;
```

```
proc sort data=table2temp;
  by AID;

data table2;
  merge table1 table2temp(keep=AID surg_fail160 e_status60);
  by AID;
  if leak_60 in(1 2 3) then Satisfaction=0;
  else if leak_60 in(4 5) then Satisfaction=1;

  if surg_fail160=1 then surg_satisfaction1=.;
  else if leak_60 in(1 2 3) then surg_satisfaction1=0;
  else if leak_60 in(4 5) then surg_satisfaction1=1;

  if surg_fail160=1 or leak_60 in(1 2 3) then surg_satisfaction2=0;
  else if leak_60 in(4 5) then surg_satisfaction2=1;

  if e_status60=1 then do;
    if leak_60 in(1 2 3) then cont_sat=0;
    else if leak_60 in(4 5) then cont_sat=1;
  end;
  else if e_status60=3 then do;
    if leak_60 in(1 2 3) then incont_sat=0;
    else if leak_60 in(4 5) then incont_sat=1;
  end;

%meandata1(order=1,  invar=age         , roundvar=.1, digit=1);
%freqdata1(order=2,  invar=hispanic    , level=(1),popvar=, totalvl=null);
%freqdata1(order=3,  invar=hispanic    , level=(2),popvar=, totalvl=null);
%freqdata1(order=4,  invar=hispanic    , level=(3),popvar=, totalvl=null);
%freqdata1(order=5,  invar=hispanic    , level=(4),popvar=, totalvl=null);

%freqdata1(order=6,  invar=marstat        , level=(0),popvar=, totalvl=null);
%freqdata1(order=7,  invar=marstat        , level=(1),popvar=, totalvl=null);

%freqdata1(order=8, invar=educ3    , level=(1),popvar=, totalvl=null);
%freqdata1(order=9, invar=educ3    , level=(2),popvar=, totalvl=null);
%freqdata1(order=10, invar=educ3   , level=(3),popvar=, totalvl=null);

%freqdata1(order=11, invar=h_inc    , level=(1),popvar=, totalvl=null);
%freqdata1(order=12, invar=h_inc    , level=(2),popvar=, totalvl=null);
%freqdata1(order=13, invar=h_inc    , level=(3),popvar=, totalvl=null);
%freqdata1(order=14, invar=h_inc    , level=(4),popvar=, totalvl=null);

%meandata1(order=15,  invar=bmi         , roundvar=.1, digit=1);

%freqdata1(order=16, invar=v_del_new    , level=(0),popvar=, totalvl=null);
%freqdata1(order=17, invar=v_del_new    , level=(1),popvar=, totalvl=null);
%freqdata1(order=18, invar=v_del_new    , level=(3),popvar=, totalvl=null);

%freqdata1(order=19, invar=uisurg    , level=(0),popvar=, totalvl=null);
%freqdata1(order=20, invar=uisurg    , level=(1),popvar=, totalvl=null);

%freqdata1(order=21, invar=stage_new    , level=(0),popvar=, totalvl=null);
%freqdata1(order=22, invar=stage_new    , level=(2),popvar=, totalvl=null);
%freqdata1(order=23, invar=stage_new    , level=(3),popvar=, totalvl=null);
```

```
%meandata1(order=24, invar=udi_tot    , roundvar=.1, digit=1);
%meandata1(order=25, invar=iiq_tot    , roundvar=.1, digit=1);
%meandata1(order=26, invar=ave_acc    , roundvar=.1, digit=1);

%meandata1(order=27, invar=stress_index    , roundvar=.1, digit=1);
%meandata1(order=28, invar=urge_index    , roundvar=.1, digit=1);

%meandata1(order=29, invar=qtip_rst    , roundvar=.1, digit=1);
%meandata1(order=30, invar=qtip_str    , roundvar=.1, digit=1);
%meandata1(order=31, invar=qtip_delta    , roundvar=.1, digit=1);

%freqdata1(order=32, invar=any_urge_sui_med    , level=(0),popvar=, totalvl=null);
%freqdata1(order=33, invar=any_urge_sui_med    , level=(1),popvar=, totalvl=null);

%freqdata1(order=34, invar=usi    , level=(1),popvar=, totalvl=null);
%freqdata1(order=35, invar=usi    , level=(0),popvar=, totalvl=null);

%meandata1(order=36, invar=vlpp_nored    , roundvar=.1, digit=1);
%meandata1(order=37, invar=d_vlpp_nored    , roundvar=.1, digit=1);

%freqdata1(order=38, invar=detrusor, level=(1), popvar=, totalvl=null);

data accumtab1;
  set accumfreq1 accummean1 accummedian1;
  if sling=. then delete;

proc sort data=accumtab1;
  by sling orderer;

proc print data=accumtab1 noobs;
  var name charall;
  where sling=0;
  format sling casef.;
  title3 'Table 1 stats (list)';


proc print data=accumtab1 noobs;
  var name charall;
  where sling=1;
  format sling casef.;
  title3 'Table 1 stats (list)';

%freqdata2(order=1,  invar=satisfaction,       level=(1),popvar=, totalvl=null);
%freqdata2(order=2,  invar=satisfaction,       level=(0),popvar=, totalvl=null);
%freqdata2(order=3,  invar=surg_satisfaction1, level=(1),popvar=, totalvl=null);
%freqdata2(order=4,  invar=surg_satisfaction1, level=(0),popvar=, totalvl=null);
%freqdata2(order=5,  invar=surg_satisfaction2, level=(1),popvar=, totalvl=null);
%freqdata2(order=6,  invar=surg_satisfaction2, level=(0),popvar=, totalvl=null);
%freqdata2(order=7,  invar=cont_sat, level=(1),popvar=, totalvl=null);
%freqdata2(order=8,  invar=cont_sat, level=(0),popvar=, totalvl=null);
%freqdata2(order=9,  invar=incont_sat, level=(1),popvar=, totalvl=null);
%freqdata2(order=10,  invar=incont_sat, level=(0),popvar=, totalvl=null);

data accumtab2;
  set accumfreq2 accummean2 accummedian2;
  if sling=. then delete;
```

```
proc sort data=accumtab2;
  by sling orderer;

proc print data=accumtab2 noobs;
  var name charall;
  where sling=0;
  format sling casef.;
  title3 'Table 2 stats (list)';


proc print data=accumtab2 noobs;
  var name charall;
  where sling=1;
  format sling casef.;
  title3 'Table 2 stats (list)';
```