Creating Simple Individual Reports for Study Participants

Elena-perkhounkova@uiowa.edu

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The Goal

Patient ID=101

Measurement	*Visit 1*	*Visit 2*	*Visit 3*	*Change: Visit 1 to 2*	*Change: Visit 2 to 3*	*Change: Visit 1 to 3*
Weight (lbs)	143.6	135.2	142.6	-8.4	7.4	-1.0
BMI	23.0	21.6	22.8	-1.4	1.3	-0.2
Fat mass (lbs)	57.0	53.2	57.6	-3.9	4.4	0.6
Lean mass (lbs)	77.5	74.8	77.2	-2.8	2.4	-0.4
Percent fat	40.6	39.8	40.9	-0.8	1.1	0.3

SAS Data Set

	patient_id	weight_b	weight_m	weight_f	weightchfb	weightchfm	weightchmb
1	101	143.6	135.2	142.6	-1	7.4	-8.4
2	102	139.8	.	.	.	.	.
3	103	95.6	98.2	93.6	-2	-4.6	2.6
4	104	232.8	235.4	228.2	-4.6	-7.2	2.6
5	105	154	.	.	.	.	.
6	106	228	.	.	.	.	.
7	107	311	309.2	.	.	.	-1.8
8	108	194.4	191.8	185.2	-9.2	-6.6	-2.6
9	109	145.6	140	148.6	3	8.6	-5.6
10	110	174.4	175.4	171.4	-3	-4	1
11	111	270.8	264.4	270.2	-0.6	5.8	-6.4
12	112	287.2	289.6	281.8	-5.4	-7.8	2.4
13	113	194.4	.	.	.	.	.
14	114	185	185.4	184.6	-0.4	-0.8	0.4

A Macro to Create Lines for Each Measure

```
*macro creates a line for each measure;
*each line has 7 variables: measure's name,
    3 time points, 3 changes;
%macro measures(vn,v);
       measurement="&vn.           ";
       v1=round(&v._b,.1);
       v2=round(&v._m,.1);
       v3=round(&v._f,.1);
       v1t2=round(&v.chmb,.1);
       v2t3=round(&v.chfm,.1);
       v1t3=round(&v.chfb,.1);
       output;
%mend measures;


%measures(Weight (lbs),weight)
```

Using %Measures to Create a Data Set with a Line for Each Measure

```
*data step creates a data set with 5 lines per subject;
data indreports;
        set temp;
        %measures(Weight (lbs),weight)
        %measures(BMI,bmi)
        %measures(Fat mass (lbs),fatmass)
        %measures(Lean mass (lbs),leanmass)
        %measures(Percent fat,totpfat)
        label measurement="Measurement";
        label v1="Visit 1*";
        label v2="Visit 2*";
        label v3="Visit 3*";
        label v1t2="Change: Visit 1 to 2*";
        label v2t3="Change: Visit 2 to 3*";
        label v1t3="Change: Visit 1 to 3*";
        drop weight_b--fatmasschmb;
run;
```

SAS Data Set with a Line for Each Measure

	patient_id	measurement	v1	v2	v3	v1t2	v2t3	v1t3
1	101	Weight (lbs)	143.6	135.2	142.6	-8.4	7.4	-1
2	101	BMI	23	21.6	22.8	-1.4	1.3	-0.2
3	101	Fat mass (lbs)	57	53.2	57.6	-3.9	4.4	0.6
4	101	Lean mass (lbs)	77.5	74.8	77.2	-2.8	2.4	-0.4
5	101	Percent fat	40.6	39.8	40.9	-0.8	1.1	0.3
6	102	Weight (lbs)	139.8	.	.	.	.	.
7	102	BMI	22.7	.	.	.	.	.
8	102	Fat mass (lbs)	46.6	.	.	.	.	.
9	102	Lean mass (lbs)	85.5	.	.	.	.	.
10	102	Percent fat	33.7	.	.	.	.	.

PROC PRINT to Print Individual Reports

```
options number=no nodate;
*proc print prints individual reports;
proc print data=indreports noobs label split="*";
        var measurement v1 v2 v3 v1t2 v2t3 v1t3;
        by patient_id;
        pageby patient_id;
run;
/*Options in PROC PRINT:
NOOBS suppresses the printing of observation numbers
    at the beginning of the rows
LABEL uses variables' labels as column headings.
SPLIT='split-character' specifies the split character,
    which controls line breaks in column headings.*/
```

An Individual Report

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Measurement	*Visit 1*	*Visit 2*	*Visit 3*	*Change: Visit 1 to 2*	*Change: Visit 2 to 3*	*Change: Visit 1 to 3*
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BMI	23.0	21.6	22.8	-1.4	1.3	-0.2
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