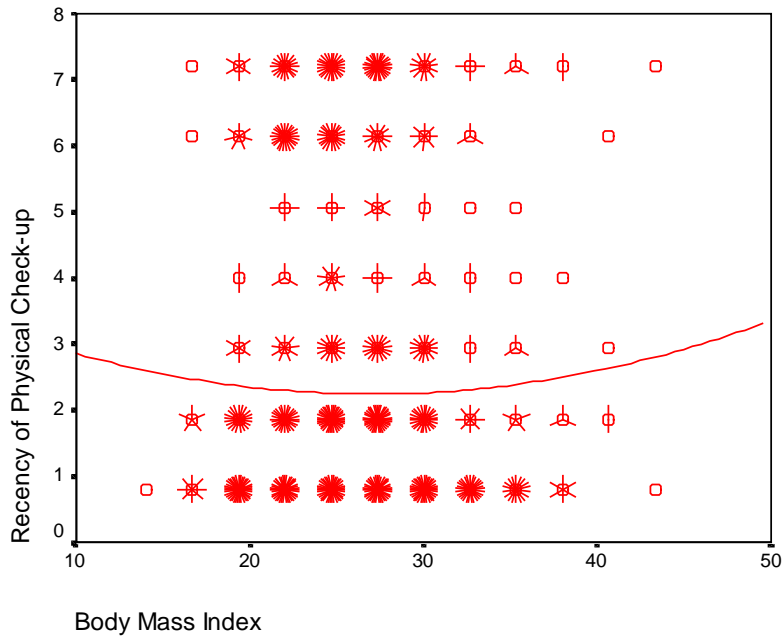


## Curvilinear Regression Example Canadian NPHS Check-up Recency Regressed on Weight

### Plot



### Syntax

```
get file='c:\jason\spsswin\da2\hbs_2.sav'.
```

\* Random sample of approx 1200 older adults from the Canadian NPHS.

\* Mean of weight was 25.793 obtained from prior regression; *Be sure that the mean you use is based on the same N that your regression is based on.*

```
compute cweight=weight-25.793.
compute cweight2=cweight**2.
```

```
regression vars=checkup cweight cweight2
  /descriptives=mean stdev n sig corr
  /statistics=anova r coeff ses cha
  /dependent=checkup
  /method=enter cweight cweight2.
```

### Output

#### Regression

**Descriptive Statistics**

	Mean	Std. Deviation	N
CHECKUP Physical Check-up	2.28	2.027	1191
CWEIGHT	.00040	4.114211	1191
CWEIGHT2	16.91252	29.175205	1191

**Correlations**

		CHECKUP Physical Check-up	CWEIGHT	CWEIGHT2
Pearson Correlation	CHECKUP Physical Check-up	1.000	.000	.027
	CWEIGHT	.000	1.000	.361
	CWEIGHT2	.027	.361	1.000
Sig. (1-tailed)	CHECKUP Physical Check-up	.	.496	.179
	CWEIGHT	.496	.	.000
	CWEIGHT2	.179	.000	.
N	CHECKUP Physical Check-up	1191	1191	1191
	CWEIGHT	1191	1191	1191
	CWEIGHT2	1191	1191	1191

**Variables Entered/Removed<sup>d</sup>**

Model	Variables Entered	Variables Removed	Method
1	CWEIGHT 2, CWEIGHT <sup>a</sup>	.	Enter

a. All requested variables entered.

b. Dependent Variable: CHECKUP Physical Check-up

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.028 <sup>a</sup>	.001	-.001	2.028	.001	.481	2	1188	.618

a. Predictors: (Constant), CWEIGHT2, CWEIGHT

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.959	2	1.979	.481	.618 <sup>a</sup>
	Residual	4886.375	1188	4.113		
	Total	4890.334	1190			

a. Predictors: (Constant), CWEIGHT2, CWEIGHT

b. Dependent Variable: CHECKUP Physical Check-up

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients		t	Sig.
		B	Std. Error	Beta	Std. Error		
1	(Constant)	2.245	.069			32.436	.000
	CWEIGHT	-.005	.015	-.011	.031	-.344	.731
	CWEIGHT2	.002	.002	.031	.031	.981	.327

a. Dependent Variable: CHECKUP Physical Check-up