

Pulmonary function study

Listing of first ten rows of fev data

Obs	age	fev	ht	sex	smoke
1	9	1.708	57.0	Female	Nonsmoker
2	8	1.724	67.5	Female	Nonsmoker
3	7	1.720	54.5	Female	Nonsmoker
4	9	1.558	53.0	Male	Nonsmoker
5	9	1.895	57.0	Male	Nonsmoker
6	8	2.336	61.0	Female	Nonsmoker
7	6	1.919	58.0	Female	Nonsmoker
8	6	1.415	56.0	Female	Nonsmoker
9	8	1.987	58.5	Female	Nonsmoker
10	9	1.942	60.0	Female	Nonsmoker

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Frequency counts

The FREQ Procedure

Sex				
sex	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Female	318	48.62	318	48.62
Male	336	51.38	654	100.00

Smoking status				
smoke	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Nonsmoker	589	90.06	589	90.06
Smoker	65	9.94	654	100.00

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Descriptive statistics

The MEANS Procedure

Variable	Label	N	N Miss	Mean	Std Dev	Minimum	Maximum
age	Age in years	654	0	9.9311927	2.9539352	3.0000000	19.0000000
fev	Forced Expiratory Volume (liters)	654	0	2.6367798	0.8670591	0.7910000	5.7930000
ht	Height in inches	654	0	61.1435780	5.7035128	46.0000000	74.0000000

Pulmonary function study

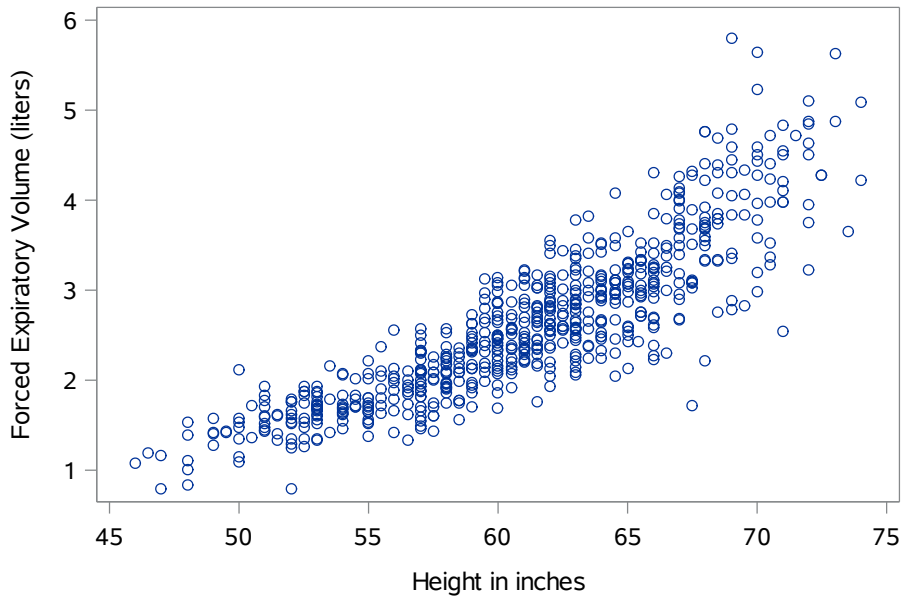
Correlations

The CORR Procedure

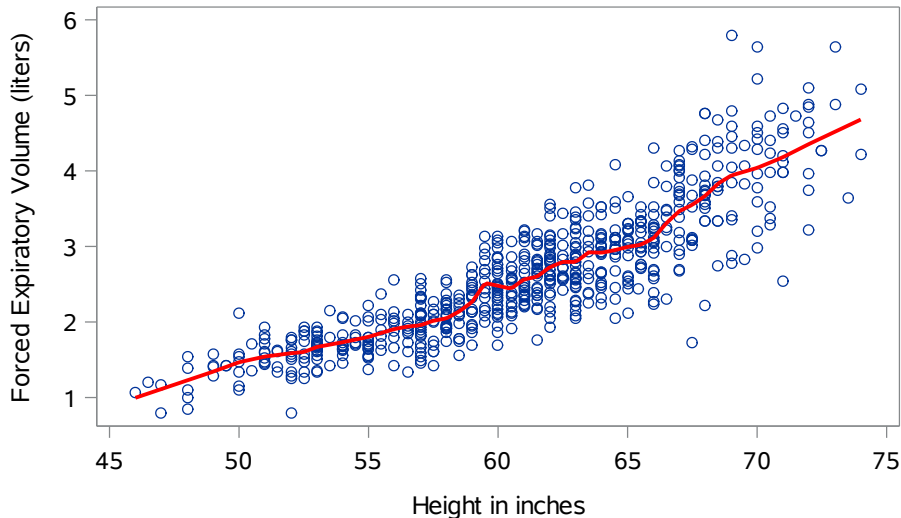
3 Variables:	age	fev	ht
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Pearson Correlation Coefficients, N = 654			
	age	fev	ht
age Age in years	1.00000	0.75646	0.79194
fev Forced Expiratory Volume (liters)	0.75646	1.00000	0.86814
ht Height in inches	0.79194	0.86814	1.00000

Pulmonary function study Scatterplots



Pulmonary function study
Scatterplots
with loess, smooth=0.1



○ Forced Expiratory Volume (liters) — Loess, Smooth=0.1

Pulmonary function study Boxplots



Pulmonary function study

Descriptive statistics by group

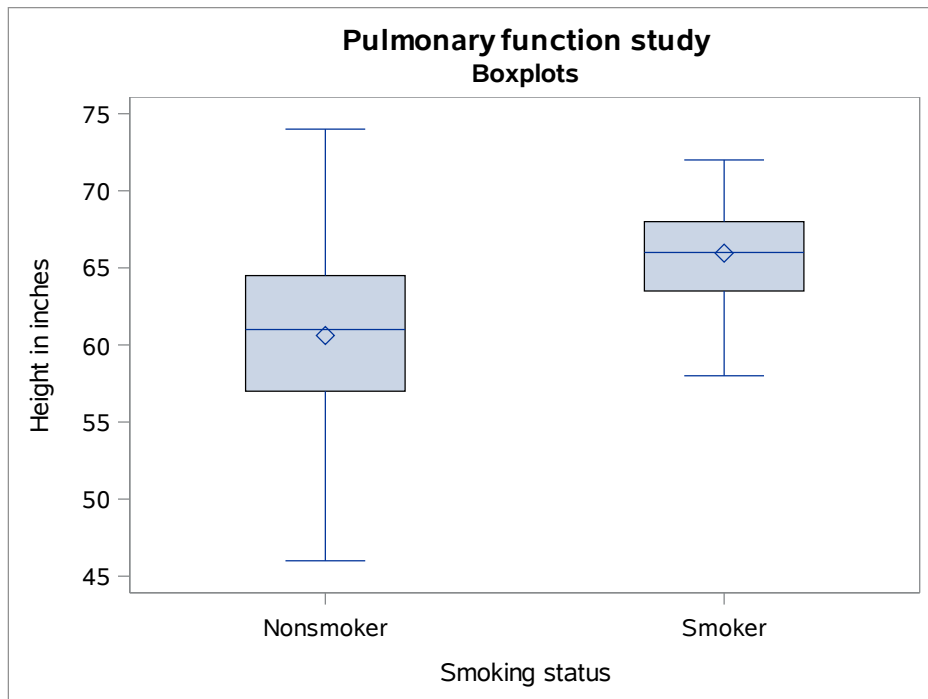
The MEANS Procedure

Smoking status=Nonsmoker

Analysis Variable : fev Forced Expiratory Volume (liters)				
N	Mean	Std Dev	Minimum	Maximum
589	2.5661426	0.8505215	0.7910000	5.7930000

Smoking status=Smoker

Analysis Variable : fev Forced Expiratory Volume (liters)				
N	Mean	Std Dev	Minimum	Maximum
65	3.2768615	0.7499863	1.6940000	4.8720000



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Descriptive statistics by group

The MEANS Procedure

Smoking status=Nonsmoker

Analysis Variable : ht Height in inches				
N	Mean	Std Dev	Minimum	Maximum
589	60.6127334	5.6724322	46.0000000	74.0000000

Smoking status=Smoker

Analysis Variable : ht Height in inches				
N	Mean	Std Dev	Minimum	Maximum
65	65.9538462	3.1926711	58.0000000	72.0000000

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Descriptive statistics by group

The GLM Procedure

Class Level Information		
Class	Levels	Values
sex	2	0 1

Number of Observations Read	654
Number of Observations Used	654

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Descriptive statistics by group

The GLM Procedure

Dependent Variable: fev Forced Expiratory Volume (liters)

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	21.3239844	21.3239844	29.61	<.0001
Error	652	469.5958519	0.7202390		
Corrected Total	653	490.9198363			

R-Square	Coeff Var	Root MSE	fev Mean
0.043437	32.18581	0.848669	2.636780

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Descriptive statistics by group

The GLM Procedure

Dependent Variable: fev Forced Expiratory Volume (liters)

Source	DF	Type I SS	Mean Square	F Value	Pr > F
sex	1	21.32398443	21.32398443	29.61	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
sex	1	21.32398443	21.32398443	29.61	<.0001

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Descriptive statistics by group

The GLM Procedure

Dependent Variable: fev Forced Expiratory Volume (liters)

Parameter	Estimate		Standard Error	t Value	Pr > t
Intercept	2.812446429	B	0.04629869	60.75	<.0001
sex 0	-0.361276617	B	0.06639632	-5.44	<.0001
sex 1	0.000000000	B	.	.	.

Note: The X'X matrix has been found to be singular, and a generalized inverse was used to solve the normal equations. Terms whose estimates are followed by the letter 'B' are not uniquely estimable.

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Descriptive statistics by group

The GLM Procedure

Dependent Variable: fev Forced Expiratory Volume (liters)

Distribution of fev

