

QUIZ 20

This image was in the slideshow:



With this image in mind, what is the difference between unstandardized β and "standard error"?

In a linear regression, what is meant by "holding variables constant"?

Here's a linear regression output estimating the cost of patient care in dollars: Standardized Coefficients 95.0% Confidence Interval for B Unstandardized Coefficients В Std. Error Beta Lower Bound Upper Bound Sig. Model 1 (Constant) 95023.504 10657.913 8.916 .000 74115.221 115931.787 Age_years -778.214 165.733 -.128 -4.696 .000 -1103.344 -453.085 Number_of_Fractured_R 1163.507 .000 10628.282 8345.758 .203 7.173 6063.234 ibs 40606.979 8564.352 .133 4.741 .000 23805.764 57408.195 Pulmonary_Contusion TEA_FINAL_COUNT -22232.653 8757.436 -.070 -2.539 .011 -39412.654 -5052.653

Interpret the unstandardized β , significance, and 95% confidence interval for "Pulmonary_Contusion" (i.e., lung bruise).

Here's a logistic regression output of the same hospital patients:

Model Summary					Classification Table ^a					
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					Predicted					
	-2 Log (Cox & Snell R	Nagelkerke R Square					MORTALITY		Percentage Correct
Step	likelihood	Square				Observed		Survived	Died	
1	549 443 ^a	064	.167		Step 1	MORTALITY	Survived	1236	4	99.7
1	549.445	.004					Died	83	3	3.5
a. Estimation terminated at iteration number 8						Overall Perce	ntage			93.4
	Variables in the				quatio	n		95% C.I.for EXP(B)		
		В	S.E.	Wald	df	Sig	. E>	(p(B)	Lower	Upper
Step 1 ^a	Age_years	.020	.006	10.733		1 .0	01 1	1.021	1.008	1.033
	Number_of_Fractur ibs	red_R .183	.032	32.234		1.0	00 1	1.201	1.127	1.279
	Pulmonary_Contusi	on .904	.281	10.302		1 .0	01 2	2.468	1.422	4.285

Constant -4.678 .449 108.542 1 .000 .009 a. Variable(s) entered on step 1: Age_years, Number_of_Fractured_Ribs, Pulmonary_Contusion, TEA__FINAL_COUNT.

 TEA_FINAL_COUNT
 -2.911
 .726
 16.061
 1
 .000
 .054
 .013
 .226

The dependent variable is mortality (whether the patients survived or died). Interpret the outcome as it relates to the number of fractured ribs.