UNIVERSITY OF HELSINKI
FACULTY OF VETERINARY MEDICINE

SOLUTION FOR EXERCISE 2 – antibiotic DCT MILK QUALITY

1. Import database to SPSS

Command:

File … Open … Data … chose file from the new window … select Excel (*.xls, *.xlsx, *.xlsm) from the Files of type … click Open

Read Excel File … chose Worksheet "aDCT" … click OK

2. Define each of the variables – DEFINE VARIABLE PROPERTIES

Command:

Data … Define Variable Properties … chose Variable and move to Variables to Scan … click Continue

Complete: Label, Measurement level, Type, Width, and Decimals.

3. Explore the data and its distribution.

Command:

Analyze … Descriptive Statistics … Frequencies … select the variables … click Charts … select Bar charts … click Continue … click Display frequency tables … click OK

4. Test to compare two proportions

Test existence of associations between variables of interest (use of antibiotic DCT and bulk tank milk SCC; use of antibiotic DCT and rolling herd milk production)

Command:

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Analyze … Descriptive Statistics… Crosstabs … move use of antibiotic DCT to columns and move bulk tank milk SCC (or rolling herd milk production) to rows … click Statistics … click Chi-square … click Continue … click Display clustered bar charts … click OK

BTMSCC * antibiotic DCT Crosstabulation

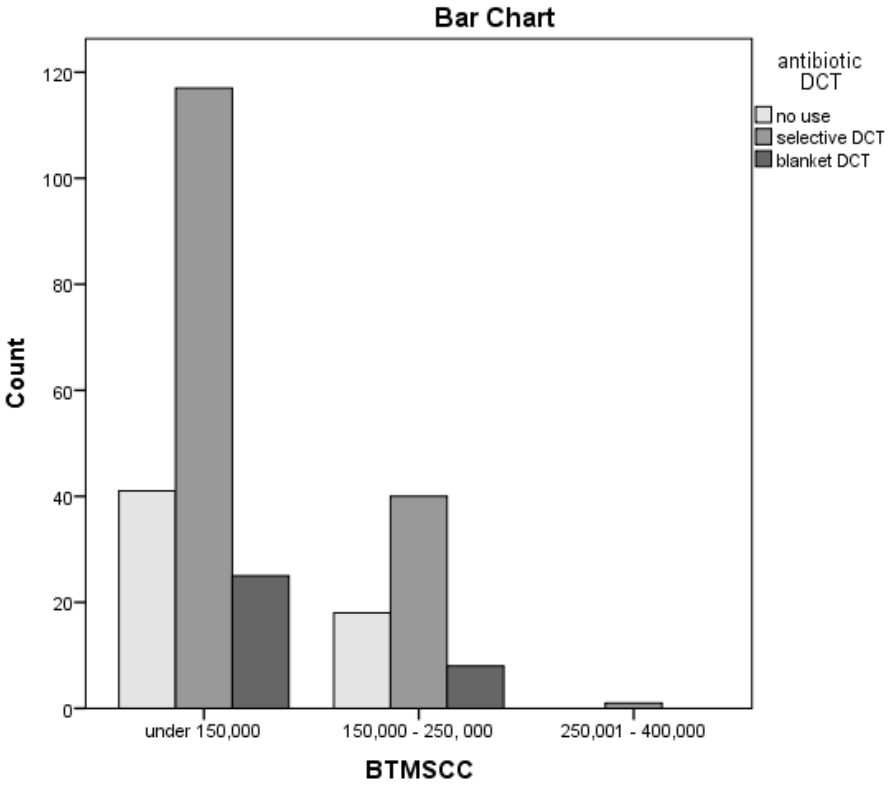
Count

		antibiotic DCT			
		no use	selective DCT	blanket DCT	Total
BTMSCC	under 150,000	41	117	25	183
	150,000 - 250, 000	18	40	8	66
	250,001 - 400,000	0	1	0	1
Total		59	158	33	250

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1,244[a]	4	,871
Likelihood Ratio	1,565	4	,815
Linear-by-Linear Association	,464	1	,496
N of Valid Cases	250		

a. 3 cells (33,3%) have expected count less than 5. The minimum expected count is ,13.



milk production * antibiotic DCT Crosstabulation

Count

		antibiotic DCT			
		no use	selective DCT	blanket DCT	Total
milk production	under 6,000	6	11	4	21
	6,000-8,000	1	7	2	10
	8,000-10,000	33	67	15	115
	more 10000	19	73	12	104
Total		59	158	33	250

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6,346[a]	6	,004
Likelihood Ratio	6,476	6	,014
Linear-by-Linear Association	,030	1	,009
N of Valid Cases	250		

a. 4 cells (33,3%) have expected count less than 5. The minimum expected count is 1,32.

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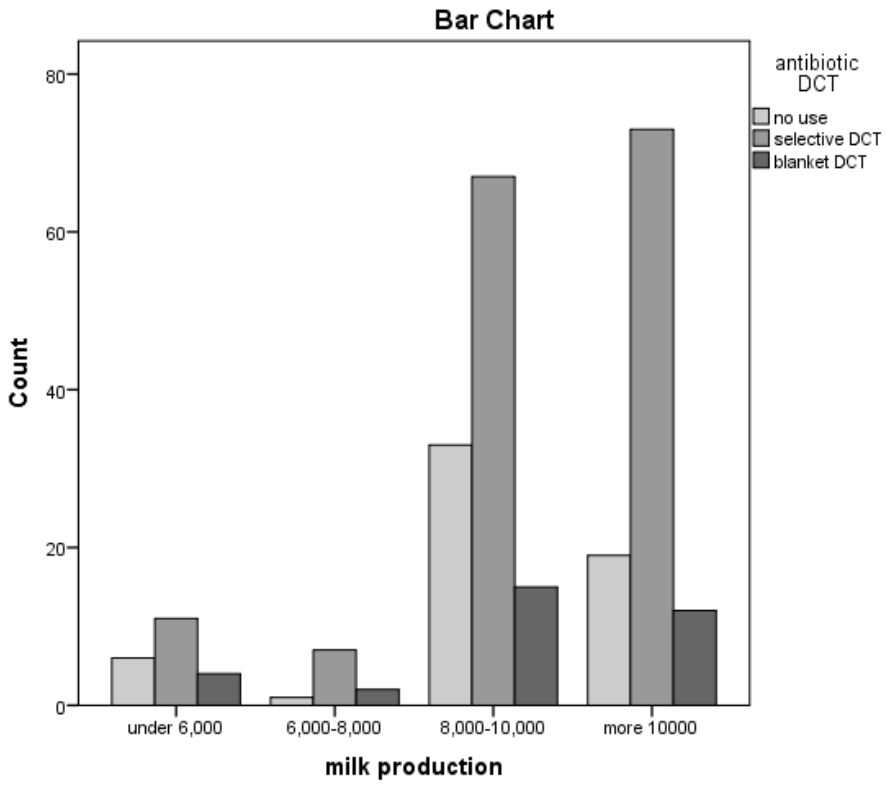

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