Solution to Exercise 2: More on EpiData Analysis

Key point(s):

    a) EpiData Analysis is a powerful tool to manipulate and restructure data sets

    b) Tabular outputs can be customized to specific needs

    c) To evaluate graph options, one may best use first the visual menu-driven interface and then copy and paste the resulting options into a program for permanent reproduction.

Task:

o   *Write a program B_EX02.PGM using the data set "`abcd.rec`". Limit your analysis to patients with a diagnostic sputum smear examination. Create an output that shows the incremental yield of cases from the first, second and third of three serial smears. With incremental yield we mean determining the proportion of examinees who are positive already on the first, patients who are negative on the first, but positive on the second, and examinees who are negative on the first two but positive on the third serial smear examination. The denominator should be those who have had the required number of smears to determine the yield.*

Solution:

The desired output is:

Yield of first smear: Px [exclude none]

Six essential patterns

	N	%	(95% CI)
NNN	104	77.6	(69.8-83.8)
NPx	10	7.5	(4.1-13.2)
Px	20	14.9	(9.9-21.9)
Total	134	100.0	

Yield of second smear: NPx [exclude: N99]

Six essential patterns

	N	%	(95% CI)
NNN	104	77.6	(69.8-83.8)
NPx	10	7.5	(4.1-13.2)
Px	20	14.9	(9.9-21.9)
Total	134	100.0	

Yield of third smear: NNP [exclude: N99, NN9]

Six essential patterns

	N	%	(95% CI)
NNN	104	77.6	(69.8-83.8)
NPx	10	7.5	(4.1-13.2)
Px	20	14.9	(9.9-21.9)
Total	134	100.0	

The part of the program B_EX02.PGM which gave this output:

```
* Task Exercise 2, Part B

cls
close
read "abcd.rec"

define case #
case=0
if res1>0 and res1<9 then case=1
if res2>0 and res2<9 then case=1
if res3>0 and res3<9 then case=1
label case "Microscopy case definition"
labelvalue case /0="Non-case"
labelvalue case /1="Case"

cls
gen s(3) esspattern="NNN"
if res3=9 then esspattern="NN9"
if res2=9 then esspattern="N99"
if res3>0 and res3<9 then esspattern="NNP"
if res2>0 and res2<9 then esspattern="NPx"
if res1>0 and res1<9 then esspattern="Px"
label esspattern "Six essential patterns"

set echo=off
select reason=0
cls
type "Yield of first smear: Px [exclude none]" /h2
freq esspattern /c /ci
type "Yield of second smear: NPx [exclude: N99]" /h2
freq esspattern /c /ci if esspattern<>"N99"
type "Yield of third smear: NNP [exclude: N99, NN9]" /h2
freq esspattern /c /ci if esspattern<>"NN9" and esspattern<>"N99"
select
set echo=on
```