

Subject n°2

STATISTICS

Please, do not write on the exam paper and do not forget to give it back at the end of the test.



The NEW ENGLAND
JOURNAL of MEDICINE

Explaining the Decrease in U.S. Deaths from Coronary Disease, 1980–2000

Results

From 1980 through 2000, the age-adjusted death rate for coronary heart disease fell from 542.9 to 266.8 deaths per 100,000 population among men and from 263.3 to 134.4 deaths per 100,000 population among women, resulting in 341,745 fewer deaths from coronary heart disease in 2000. Approximately 47% of this decrease was attributed to treatments. Approximately 44% was attributed to changes in risk factors, including reductions in total cholesterol (24%), systolic blood pressure (20%), smoking prevalence (12%), and physical inactivity (5%), although these reductions were partially offset by increases in the body-mass index and the prevalence of diabetes, which accounted for an increased number of deaths (8% and 10%, respectively). 9% of this decrease is unexplained.

Part A : Answer True or False and justify your answer.

- 1) The death rate for coronary heart disease decreased by 50.86 % for men and by 48.96 % for women between 1980 and 2000.
- 2) On the whole population, we can deduce that this death rate decreased by 49.91 % between 1980 and 2000.
- 3) Thanks to treatments about 160,620 lives were spared between 1980 and 2000.
- 4) The reductions in total cholesterol, in systolic blood pressure, in smoking prevalence and in physical inactivity are mutually exclusive factors.

Part B : What do you think about figures concerning changes in risk factors ?