1023-62-1681        **Rachid Bekralas\*** (`rbekrala57@hotmail.com`), BMCC City University, 199 Chambers Street, New York, NY 10001. *Impact of exogeneous factors on patients expiratory volume.* Preliminary report.

Objective: The purpose of the present study is to predict the average of the force expiratory volume(Yi) of patients subject to different factors(or dosage) such as age, height, sex, and smokers.The data contains 654 children whose age are from 6 to 22 years(n=654). The methodology intended to be used for analyzing the set of respiratory disease data is a statistical approach known under the name of OLS (Ordinary Least Square method) since it gives the best unbiased estimators with a minimum variance. Among the five variables being used in the model,three are continuous(Fev,age,height) and two are categoricals(sex,and smokers). An OLS is used to modelise the set of data. It is presented in the form of statistical linear model as: Yi =o + 1X1 + 2X2+3X3+ 4X4 + i, where: i N(0,) Let denote:

Yi:force expiratory volume in liters X1:age of children in years ranged from 6 to 22 years. X2:height of children in inches X3:sex of children(female or male) X4:smoker(nonsmoker or current smoker) (Received September 26, 2006)