

# Preliminary results from the Scientific Researching project “Direct Fiscal cost – benefit for the Smoking in Cuba”

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## Abstract

**Background.** The academic development becomes stronger by including the scientific results to the teaching process. The academic research project checking is a constant need from the university context.

**Objective.** To value the behavior from the academic research project “Direct fiscal cost – benefit for the smoking in Cuba”.

**Materials and Methods.** Was made a descriptive research from the result obtained by the academic research project “Cost – benefit direct fiscal from smoking in Cuba”. As theoretic methods were used the historical – logical, the comparative and the inductive – deductive. As empiric method was used the bibliographic research.

**Results.** The project had an extended scientific production. It is leasing the research about smoking economic benefits and it suggest make an extensive practice validation from the proposes in other health institutions where smoking is an important risk factor.

**Conclusions.** The academic research project “Cost – benefit direct fiscal from smoking in Cuba” had obtained important results that show the smoking social costs in the researched population. However is leasing the description and accounting from the smoking economic benefits to estimate the cost – benefit relation. A closer relation with other health institutions might obtain present primary information and an extended practice validation.

**Key words:** academic project; scientific research; smoking; fiscal cost; Cuba; socioeconomic

## Background

The scientific research is one of the main bases for the Superior Education sustainability. The incorporation of the scientific results to the academic process contributes to make stronger the formation of human resources more capacitated agree to the specific needs from the society [1].

The description about the academic research behavior case by case support the bases for the step by step incorporation of the academic research results to the teaching process and to the research process too. Also this description may a better valuation about the academic research behavior for the objectives considered [2].

An example of that is the academic project for scientific research “Direct fiscal cost – benefit for the smoking in Cuba” from the Faculty of Medical Science “10 de Octubre” at the University of Medical Science of Havana. This project born in 2011 with the main objective of determines the direct

fiscal relation cost – benefit from smoking in Cuba, as the title suggest [3].

This research academic project is singular since the medical education point of view because of the convergence of several knowledge areas moreover than the Health Sciences. By this way it appoints the importance of the interdisciplinary scientific research for a better academic development.

The valuation of the academic project “Direct fiscal cost – benefit for the smoking in Cuba” will may identify the main results, challenges and perspectives for the appropriate development of this project.

## Objective

To value the behavior from the academic research project “Direct fiscal cost – benefit for the smoking in Cuba”.

## Materials and Methods.

Was made a descriptive research from the result obtained by the academic research project “Cost – benefit direct fiscal from smoking in Cuba”. As theoric methods were used the historical – logical, the comparative and the inductive – deductive. As empiric method was used the bibliographic research.

## Results

The academic research project “Direct fiscal cost – benefit for the smoking in Cuba” had included five general items. These are:

- 1) The smoking economic burden by morbidity.
- 2) Labor productivity loses attributable to smoking.
- 3) Economic policy for the smoking control.
- 4) Socioeconomic inequity attributable to smoking.
- 5) Postgraduate education for the smoking economic control.

Following it expose the more significant results obtained from each item.

*The smoking economic burden by morbidity.* This item had been crucial for this project. In this case the researches had made a conscientious and deep research about the two main general ways to estimate the smoking economic burden by morbidity, showing the main advantages and limitations from each one [4].

Also was made an analytic description about the behavior from the smoking economic burden. This result supported a better understanding from the smoking impact as risk factor over the morbidity attributable [5].

One of the most important contribution from this research item was given by differentiate between the economic burden attributable to smoking by morbidity and the economic burden attributable to active smokers by morbidity and differentiate between the economic burden attributable to smoking by morbidity and the epidemiologic burden from smoking by morbidity, as the authors show in the respective research [6].

This differentiation was obtained by recognizing the importance of the effective demand of health services attributable to smoking in the formation of the economic burden attributable to smoking by morbidity. Since this point and with the introduction of new concepts the authors design a new formula to determine the smoking economic burden by morbidity for active and passive smokers.

This new formula acknowledges explicitly to the intensity of tobacco consumption and the smoker number as main variables explicating the formation of the economic burden by morbidity. This fact is very significant because usually this variable isn't considered explicitly estimating the smoking economic burden by morbidity because often the researchers attribute the whole smoking economic burden by morbidity to the active smokers.

The new formula supported the designing of a general algorithm to estimate the economic burden attributable to smoking by morbidity in active and passive smokers. Thus, the practice contribution by the algorithm is based on the theoric contributions obtained that support the conception of the new formulation [7].

The new formula was validated since the analytic point of view, showing thus the application feasibility. Also was validated since the practice point of view by estimating the smoking economic burden by morbidity in Cuba for 2011 and for the National Institute for Oncology and Radiology for 2015 [4, 8, 9].

In acknowledge of the relevancy of the effective demand of health services estimating the economic burden attributable to some risk factor, the author suggest the use of the new formula determining the smoking economic burden by morbidity in active and passive smokers [10].

**Labor productivity loses attributable to smoking.** This item describes the relation between smoking and health at job. Also shows the main forms of labor productivity loses because of smoking and it social costs [11, 12].

Particularly was designed a general procedure to calculate the social cost by labor productivity loses because of the tobacco consumption during the working time. This procedure was validated for Cuba in 2011 [13].

In this item was designed an analytic – mathematic procedure to describe the main relations determining the smokes over mortality. This procedure emphasizes it practice value admitting this over mortality form as the difference of life expectancy between smokers and no – smoker people and not as the difference between the smoker life expectancy and the general life expectancy. This procedure was validated for Cuba in 2011 showing the relation between the tobacco consumption intensity's and the smoker over mortality [14, 15].

**Economic policy for the smoking control.** This item abounds in discussions referent to the use of the economic policy for the smoking control. In this item were obtained the following results:

- a) Description of the smoking impact over the Cuban Public Health spends from 1997 to 2014 [16].
- b) It shows the tobacco behavior as necessities economic goods [17].
- c) Description of the tributaries and no tributaries policies incidence for the smoking control [18].
- d) Description of the efficient role from the fiscal authorities in the smoking control [19].
- e) It arguments the importance of using the fiscal policy for the smoking control in Cuba [20].
- f) It suggests the application of tributary policy for the smoking control in Cuba [21].
- g) Description of the role from the health workers related with the primary attention for the epidemiologic and economic smoking control [22, 23].
- h) Description of the smoking fiscal space in Cuba [24].

This item is extensive in results number. Also shows the need from the more efficient use of economic policies for the smoking control in Cuba. Appoint the need of continue deepening about the behavior of the tobacco consumption in Cuba.

**Socioeconomic inequity attributable to smoking.** This researching item shows the smoking as important socioeconomic inequity cause. The main results are showed in following:

- a) Description of the socioeconomic inequity attributable to smoking [25].
- b) Characterization of the socioeconomic inequity attributable to smoking [26].
- c) Was related each smoking social cost with a specific socioeconomic inequity form attributable to smoking [27].
- d) Was designed a ratio to measure the socioeconomic inequity attributable to smoking accessing to the health services [28].
- e) Description of the absolute socioeconomic inequity attributable to smoking [29].
- f) Was designed a general instrument to measure the socioeconomic inequity attributable to smoking [30].
- g) Was validated the instrument for Cuba in 2011, making emphasis in the importance of the public policies for the smoking control [31].
- h) Was showed a defined structure from the Cuban provinces with higher tobacco consumption [32].

### Postgraduate education for the smoking economic control.

This item raise designing of postgraduate courses for the human resources formation agree to the specific needs from the smoking economic control. The item had obtained the following results:

- a) The designing of a postgraduate trainer course to calculate the smoking economic burden by morbidity. This course is focused in teach how determine the smoking economic burden by morbidity in active and passive smokers [33].
- b) The designing of a postgraduate course to calculate the smoking social cost by labor productivity lose attributable to smoking [34].
- c) The designing of a diploma course focused in the valuation of the socioeconomic disparity because of smoking [35].
- d) The designing of a diploma course about the smoking social costs in the national economy [36].
- e) The designing of a strategic of professional upping for the smoking economic control [37].

In general terms the academic project had obtained extended results, especially considering that only two researchers (the authors) participate in the academic project. Agree to the main objective of the academic project, many researches are about smoking costs. Nevertheless, the authors must look in the economic benefits attributable to smoking. This looking don't means a positive position favorable to smoking. However may fulfill the main objective from the whole project.

By other side would be important make extensive the researches to other significant health institutions as the National Institution for Cardiology and Cardiovascular Surgery and the National Institute of Neurology and Neurosurgery.

Also apply extensively the same methodology to shorter populations as province or municipality should make stronger the validation process from the teoricals results. However, the limited availability of financial results determines the real possibilities.

Something important in this case is the availability of several postgraduate courses focused on smoking costs and smoking economic control. Would be very important that universities from other countries would be agree accepting some of those courses, where the final academic exercise would be close related with the application of the main teoricals results in the respective population out of Cuba. In this case the courses would be able in English and Spanish too and the use of informatics tools could make possible the teaching process on – line [38].

Abstracting, the academic research project “Direct fiscal cost – benefit for the smoking in Cuba” may utilizes several research opportunities for more expansion and development. For that is very important the socialization from the main results by several professional upping forms.

### Conclusions

The scientific research project “Direct fiscal cost – benefit for the smoking in Cuba” had obtained relevant results demonstrating the significance from the smoking social cost in the population researched. However, it is necessary focus the research in the smoking benefits for may calculate the cost – benefit relation and expand the application form the main teoricals results to other populations too.

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