The Global Project of Cienfuegos. Ten Years after

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Introduction

Non Communicable Diseases (NCD) and Accidents constitute the first causes of death in our country today. NCD have been emerged as a continuous burden of suffering in our epidemiologic profile. Around 40% of deaths in Cuba are due to cardiovascular diseases, life expectancy at birth increased to 76 years, and infant mortality decreased to 7.2 per 1000 live born in 1998. (Table 1)

| Table 1. Selected Indicators. Cienfuegos, 1998. Source: Provincial Health Statistics Department |
|---------------------------------|---------------------------------|
| Infant mortality               | 7.6 per 1000 live born         |
| Life expectancy at birth       | 76.0 years                      |
| Crude overall mortality rate   | 6.7 per 1000 inhabitants        |
| Mortality due to Non Communicable Diseases and Accidents | > 70% of all deaths |
| Mortality due to Infectious and Parasitic Diseases | < 1.5% of all deaths |
| Percentage of ≥ 60 year old persons | 12.6%                          |
| Percentage of men/percentage of women | 50.7% / 49.3%                  |

Cienfuegos province exhibits one of the best figures reached of infant mortality and life expectancy in the country, in the last decade, but, at the same time, its NCD morbidity and mortality rates have been consistently over the mean ones reported for Cuba. The Global Project of Cienfuegos started, in 1989, to face this situation, and as a complement of the national health strategies. Since then, this community based project of health promotion and prevention has been the answer of the local government, different sectors of the community and the citizens themselves, to this new challenge.

Objective

To enhance health, quality of life and well-being of the community, through a long term project, that includes an individual intervention based in health primary care, plus an intersectorial and population intervention, where all sectors, associations and groups of the community plan and fulfill different activities from their own resources and initiatives, but in a coordinate way under the command of the local authorities and with the cooperation of national advisers.

Material and Methods
It was planned, and performed, a project with an integrated approach of common risk factors (RF) for NCD. Three intervention strategies were simultaneously used: Population, high risk, and reorientation of services. Several "specific projects" were developed, among the most important ones: education, social communication, physical exercise, environment and preventive and clinical guidelines (Figure1). The intervention activities were evaluated, among other issues, by two cross-sectional surveys of RF and NCD carried out by stratified and randomized samples of 15 years and older citizens –also equiprobabilistic by ten years groups of age and sex-, the first in 1991-1992 (n=1653 persons) and the second in 1994-1995 (n=1371).

![Figure 1. Organization of the Global Project of Cienfuegos, Cuba](image)

Results

Because this is an intervention-action project, a lot of data are available about the health profile of Cienfuegos citizens. The main purpose of the first survey was to obtain the prevalence of RF for NCD and their characteristics in Cienfuegos, as a baseline of valid indicators that permit later evaluation of the planned outcomes. The second survey was useful to analyze the first changes. A high prevalence of RF has been confirm in the baseline survey, with a significant reduction of some of them in the second survey: Hypertension (43%-32%), Sedentarism (55%-37%) and Obesity (26%-21%). In others, the figures were similar or slightly higher: Smoking (34%-34%), Alcoholism (2%-2%) and Risk Cholesterol (18%-20%). (In Table 2, prevalences by sex are shown) The specific projects, either sectorial or extrasectorial and community ones, have slowly enriched the global project and they have supported its sustainability because their concrete actions, all under the "umbrella" of the GPC.

Discussion

The integrated interventions link many approaches in a wider one, and at the same time, they diminish the project costs and favour the effectiveness of different groups of persons. A program against cardiovascular diseases as a "model" of integrated interventions can be not only practice, but strategic, because the omnipresence of their RF. So, a program for the reduction of cardiovascular morbidity and mortality can benefit many other diseases, among them: the malignant tumours -especially lung-, chronic bronchitis and emphysema, diabetes mellitus, hepatic cirrhosis, traffic accidents, low weight at birth, and congenital malformations, all of them involved in our main causes of disease and death. High blood pressure (HBP) has been identified by us as a "tracer", as a model of integrated intervention, because it facilitates a comprehensive approach of the health problems of our adults, it favours the commitment of health professionals and it makes possible the adequate monitoring of both, the population and the persons, with an appropriate, available and non invasive technology, accepted by all. A positive change on the causal factors involved in HBP also favours the prevention of many other health problems (Figure 2).

![Figure 2. The network of causes and the network of consequences of arterial hypertension.](image)

From the GPC, Cienfuegos was the first municipality involved in the Healthy Municipalities Movement in Latin America. A healthy municipality is one where their authorities, institutions and associations, executive and workers, people and families, dedicate considerable efforts to improve their own life conditions, and, as a result, their health status. In this process it is necessary to identify the own priorities of each place, with the participation of all the citizens, from the beginning, which should act as a positive process for changing the local systems of health, and the increasing of cooperation, commitment and participation of all community sectors. Among the main results of our project, we identify also the following ones:

- Active and negotiate participation of the community from the beginning, in the performance and analysis of health situation in each place, and in the "interventions", with great influence of local culture.
- Priority in the use of install capacity.
- Monitoring and evaluation of the health situation and interventions.
- Complete protocol of the GPC and the specific projects.
- More than 30 research works about the health situation of Cienfuegos.
- Groups of persons and institutions with great experience and tradition in community and multidisciplinary work, plus the existence of real "champions" in the specific projects.
- Groups of adolescents and youngs as health promotors.
- Two primary schools as "pilots" of schools for health, since six years ago
- Qualification of school teachers in order to introduce new health promotion subjects in the scholar curriculum.
- Systematic work in health topics through non-formal ways in pre-scholar children.
- University for Health Project, in the Faculty of Medicine of Cienfuegos and in the University of Cienfuegos.
- Different integrated community projects of culture in several neighbourhoods.
- Physical exercise and "therapeutic" gymnasiums projects.
- Introduction of some lines of "healthy foods" in factories and gastronomic services.
- Cooperative research in environment and health.
- Spacial stratifications of the city according to life conditions.
- Qualification of more than 10 000 persons in about 150 teaching activities, face to face.
- Municipal Council for Health, commanded by the major, with the participation of the directors of all sectors and representations of the community.
- Edition of guidelines of clinical prevention of RF and treatment of NCD.
- Presentation of different papers about the GPC in many local, national and international scientific
meetings.
• More than 30 international experts and more than 70 national ones, visited our city because of the GPC.
• Exchange and advising to other local health promotion projects in Cuba, and in some Latin American countries.

Conclusions

The GPC, a local, community based project oriented to the control and prevention of NCD and their RF, has progressively become a broader health promotion project, without forgetting the quality of the health services. The "model" of NCD –and specifically cardiovascular diseases- have adequately worked in our case, in the "diagnosis and treatment" of the local health situation and it made ready the health system, the other sectors, the decision makers, the citizens and all the community, to face sucessfully with this methodologic approach many other health related problems of the population. But the main result that we have achieved is the marvellous meeting with many persons and institutions of the community, that really constitute the great reservation of health and well-being of our people