

Cardiovascular survey in the Seychelles: strategies for risk factors prevention

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The survey conducted in the Seychelles, following the international guidelines of the MONICA project (MONItoring CARDiovascular diseases) launched by the World Health Organization, gives a good epidemiological image of the current situation in the Seychelles. When compared to those observed elsewhere, particularly in Switzerland, the epidemiological situation of cardiovascular diseases observed in the Seychelles suggest that:

1. Hypertension is the main risk factor in both sexes; the prevalence is higher among males before 55 years, but the steeper age gradient observed for females makes the prevalence comparable after 55 years.
2. Hypercholesterolemia is not currently a point of major concern in the Seychelles, although the prevalence rate is relatively high among women older than 55 years.
3. Overweight is a common problem among older women, which might explain the sex differential rates of hypertension and hypercholesterolemia after the age of 55 years.
4. Smoking is a major problem among males, with no age gradient; females seem to be relatively protected for the time being.

The survey conducted in the Seychelles is not only an important contribution of the knowledge regarding the distribution of risk factors in various population of the world: it is also an essential step towards a local public health policy, allowing one to design intervention strategies based on a sound basis.

Basically there are two complementary approaches in public health:

1. The mass strategy is aimed to modify the risk factor level of the whole population, shifting the mean prevalence rate of risk factor towards a lower value. This approach is scientifically founded when there is no threshold level for the relation between the risk factor and the probability to get the disease or, in other words, that a continuous relationship exists between the level of the risk and the risk of developing the disease.

2. The "high risk strategy" is based on the identification of persons having a higher risk to develop the disease; this approach is adequate when there is a marker of the risk, and when "marked" people are amenable to an effective treatment. Thus, in this approach, the whole population is screened to identify the persons at risk, but only those having the risk are treated.

The data provided by the Seychelles survey suggests that a combination of both strategies has to be used to control the four risk factors mentioned above.

A mass strategy should be adopted to avoid an increase of the mean cholesterol level of the Seychellois population, that is to maintain the traditional diet, mainly composed of fish and avoid its transformation towards a diet rich in animal fat.

A high risk strategy should be adopted for controlling hypertension: a population-based screening campaign should be undertaken, with clear guidelines regarding the criteria for individual intervention as well as for treatment scheme. The Seychelles survey suggests that a large room is left for improving the awareness of hypertension and the effectiveness of care.

A combination of high risk and population strategy should be adopted to control both smoking and obesity: smokers should be encouraged to quit (mainly males in the Seychelles) and obese individuals (mainly older females) should be encouraged to adopt a more reasonable diet. At the same time, general measures should be implemented in order to avoid non-smokers (mainly females) to start and to encourage everybody to keep an optimal weight (females being the most important). The control of smoking and obesity could have a substantial impact on the prevalence of hypertension and cholesterol level. The high prevalence of these risk factors indicates that a large room is left for effective prevention strategies.

Transforming these epidemiological data into prevention action is now the main objective that should be developed.