

## PREVALENCE OF THE HYPERTENSION RELATED RISK FACTORS AND HOW TO DECREASE THEIR LEVELS IN SLOVAKIA

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In 2002 standardized MONICA screening of cardiovascular risk factors was realized at 6847 responders in 6 model Slovakia regions. Biochemical parameters were analyzed in central laboratory from venous blood samples and other parameters according to standardized EPIINFO software.

In the cohort of 15-64 years old responders overweight and central obesity appeared as a most important preventable risk factor.

Overweight 2-3,5 fold increased responder's prevalence of hypertension, hypercholesterolaemia, hypertriglyceridaemia in comparison to responders with normal weight. At the responders with central obesity ( $CO > 0,9$  resp  $0,8$  men/women) 3-3,5 fold increased prevalences of hypertension, hypercholesterolaemia, hypertriglyceridaemia in comparison to responders with normal CO were observed:

- *blood pressure*  $\geq 140/90$  – 72,2% (1349) versus 27,8% (519),
- *blood pressure*  $\geq 140/90$  and *total cholesterol*  $\geq 5,2$  mmol/l – 77,5% (839) versus 22,5% (244),
- *blood pressure*  $\geq 140/90$  and *total cholesterol/HDL*  $> 4$  resp 3,5 (men/women)– 77,4% (1013) versus 22,6% (295).

Prevalence of central obesity in the whole cohort was 50,7%.

To decrease the risk factors levels economic motivation and education are needed. The main principles of our approach are: to establish rules, which will motivate the users and providers of health care system in doing and supporting preventive activities and to develop a new education means.

A special health bond was proposed as a voucher for paying in the pharmacies, shops with home medical assortments, rehabilitation centres, psychological-behavioural centres, cardio-fitness, spas, etc. (cardio-fitness, rehabilitation and behavioural centres have to be certified for this purpose).

In overweight and obese patients with metabolic syndrome the award by health bond will be claimed with the waist perimeter decrease by 10 percent from the initial level. The health insurance companies should evaluate the effectiveness of a GP at these patients in reaching of the target risk factor levels in relation to the cost of pharmacotherapy and adjust the GP's reward according to this parameter level (proposed as a “index of effectivity”).

A new social game - CALORIES - about how to reach ideal weight - was proposed and produced. Game CALORIES is going to teach the people with overweight and obesity in a funny way how to intake and release energy (counted in calories) to reach optimal weight or at least to get as close as possible. This game enables to count amount of fibre in the diet too. There is also used a formula for counting the optimal caloric intake according to the weight and according to the kind of player's job. The winner is the player who as the first completely covers the menu list according to rules and reaches the caloric intake counted at the beginning of the game.

We believe these new approaches could help to decrease the burden of overweight, obesity and hypertension in Slovakia.