



CINDI population strategies and prevalence of non-communicable diseases risk factors in Slovakia during years 1993 – 2003

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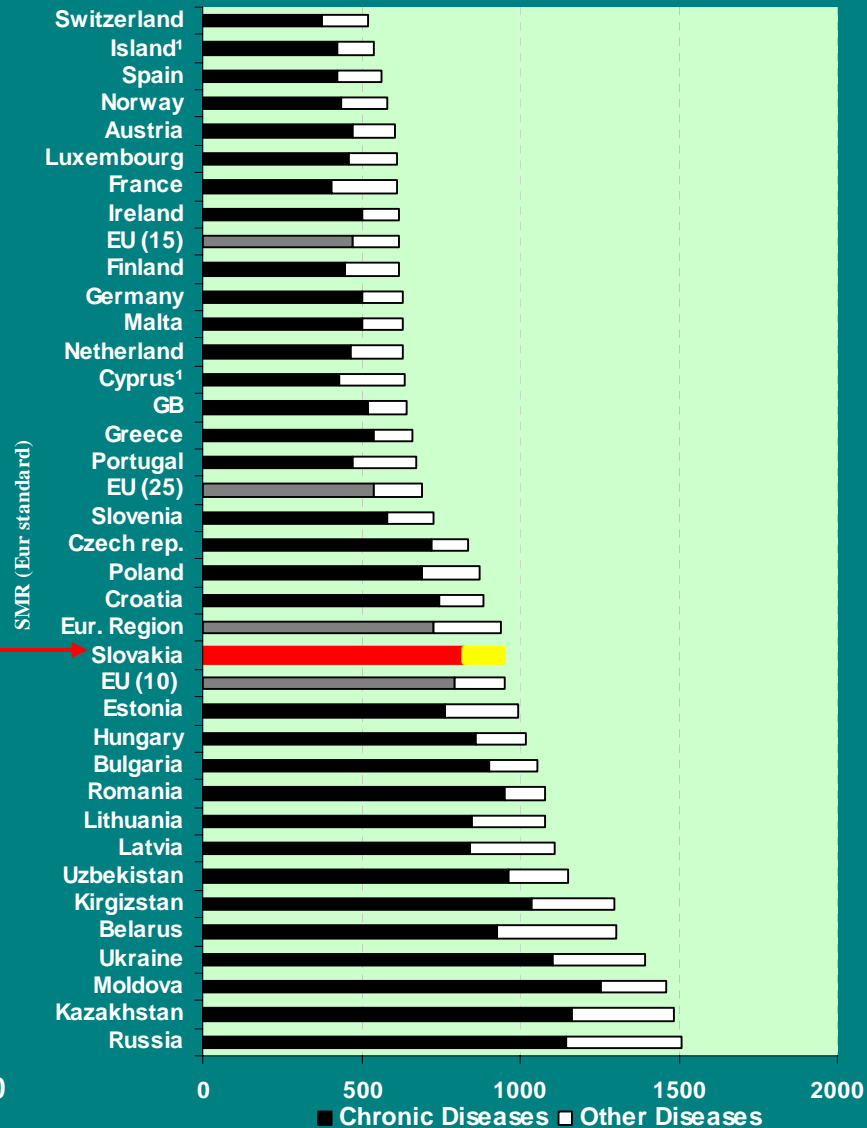
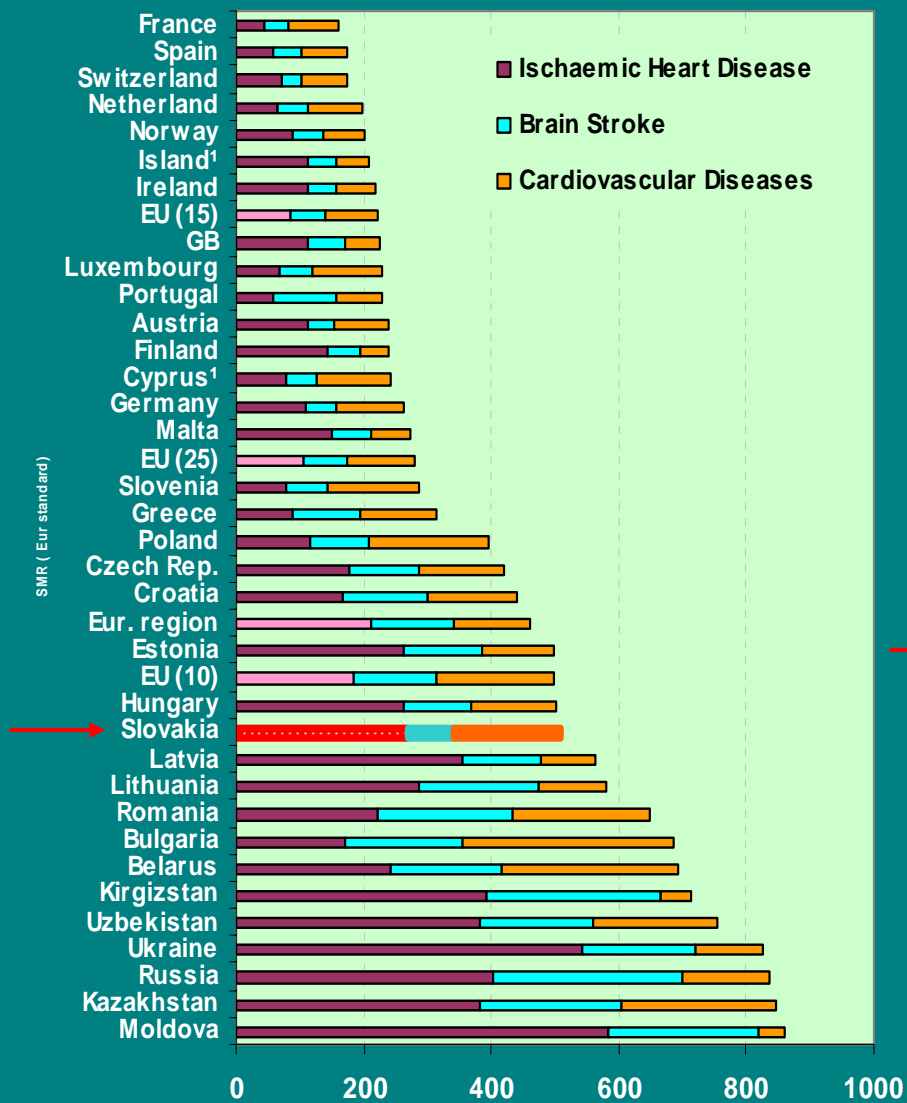
Introduction

- Slovakia is the central European country
- 5,4 mil people
- Relative high density of inhabitants-
109/km²
- There are some social, economic and educational differences comparing west and east part of country
- Mortality rate is higher than in western European countries

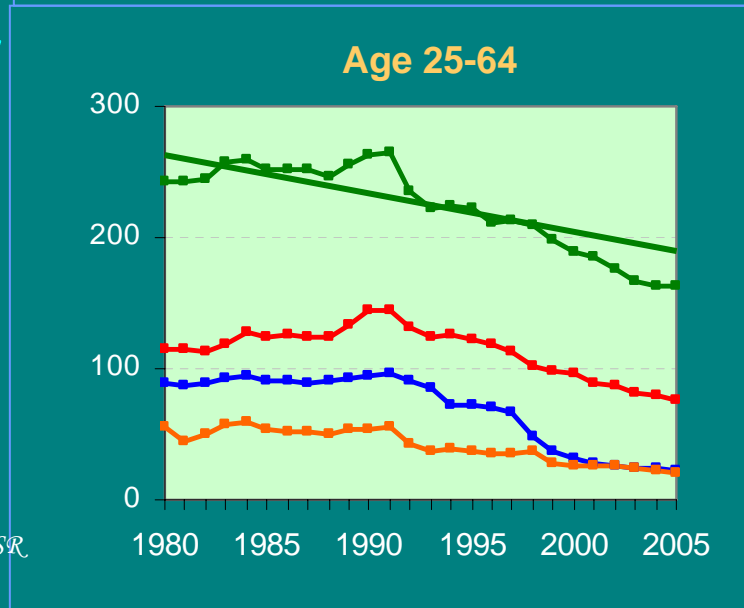
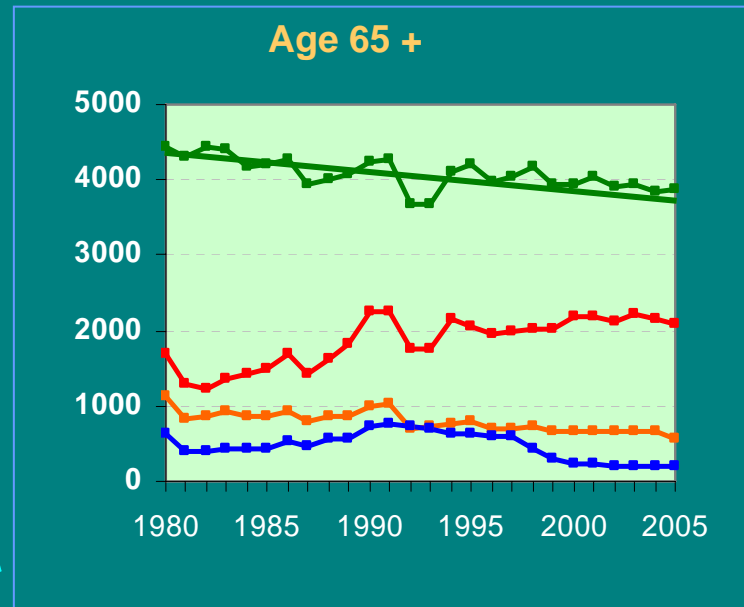
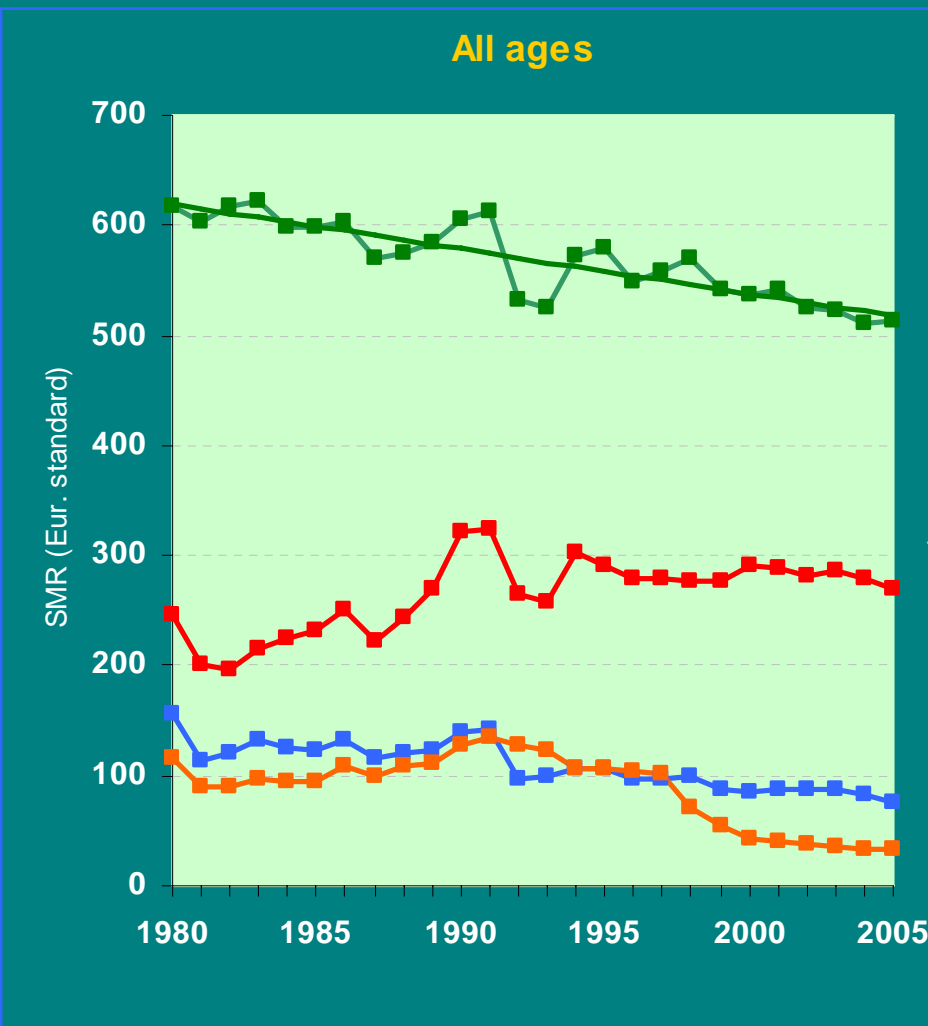
Standardized mortality in European countries, 2005

Cardiovascular diseases

All and chronic diseases



Trends in cardiovascular mortality, Slovakia 1980-2005



- CVD 100-199
- IHD 120-125
- MI 121-122
- BStroke 160-169

Source: Statistical Office SR
Analyzed: NCZI

History - Milestones

Intensive discussions run within public health professionals about possibilities of Slovakia to begin a programme aimed to primary prevention of NCD. Organisational changes was performed

1990

- Departments of Health education were relocated from the outpatients department and hospitals to the Public Health Institutes
- The core functions have been re-oriented from education of sick patients to the healthy people or to healthy „candidates“ of the chronic diseases.

1992

- Slovakia applied for the participation in the WHO CINDI programme

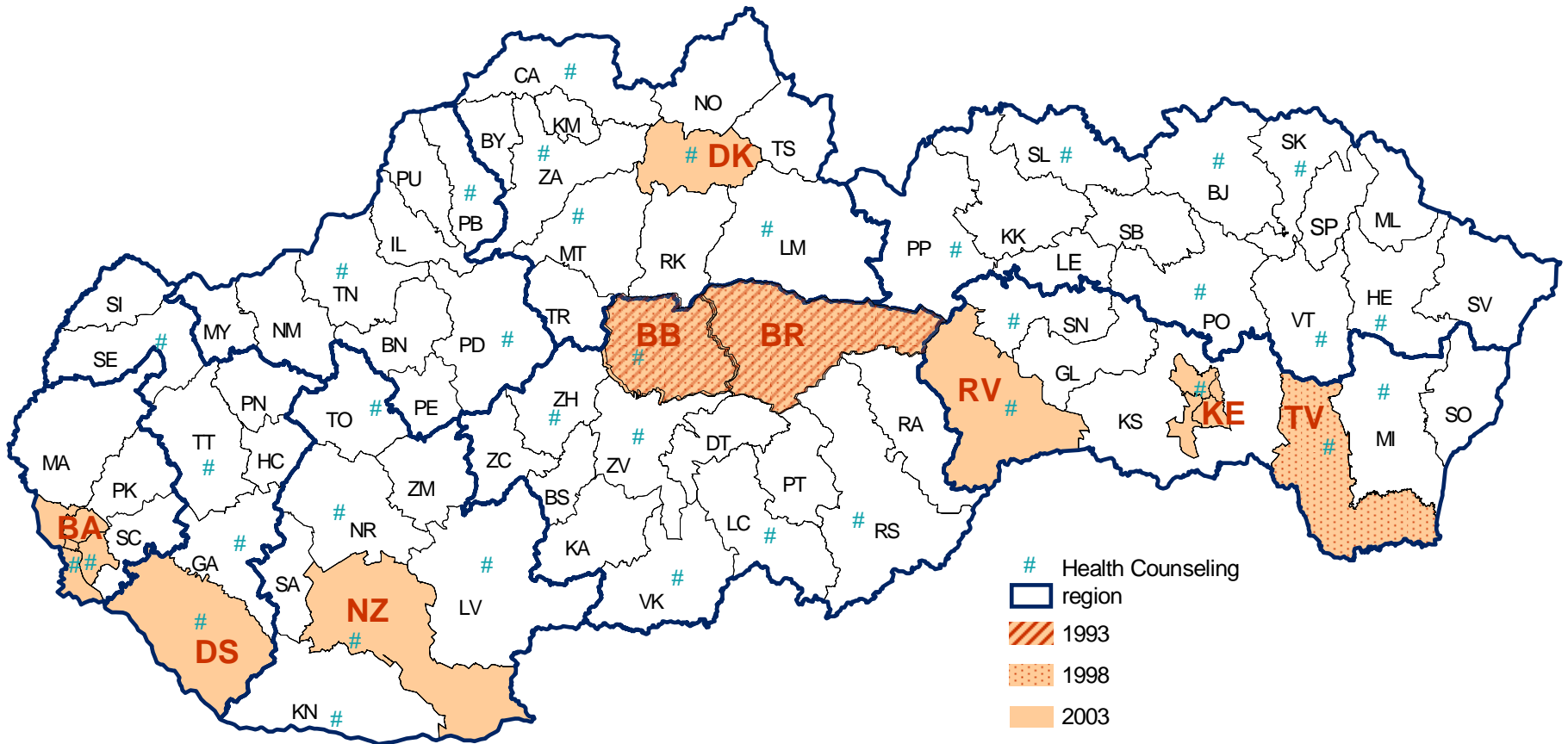
1993

- Slovakia was accepted as the member of CINDI network
- CINDI Programme became the basis of population strategy for prevention of NCD in Slovakia

Projects within CINDI Programme in Slovakia

- Slovakia without tobacco
- Primary prevention of Hypertension
- Primary prevention in children from families with hospitalized family members for brain stroke
- Healthy Kindergarten and Healthy Children in Healthy Families
- Individual and group intervention in **Health Counselling Centres**

Network of Health Counselling Centres in Slovakia



Services in health counselling centres

- Education of the clients about their health lifestyle on basis of their risk profile
- Measurement of: Blood pressure, weight, height, waist, hip, fat proportion, and TCH, TG, glucose, HDL cholesterol by Reflotron.
- The Heart health test software is used to determine the individual and familiar cardiovascular diseases risk factors.

Content of activities Health counselling centres

- Recommendations and consultations for
- physical activity
- healthy nutrition
- non-pharmacological treatment of hypertension
- stop smoking
- psycho-social stress
- healthy gravidity

Place of Intervention activities

Individual and group intervention

- In Health Counselling Centres
- „mobile unit“ activities at:
 - workplaces
 - schools
 - municipalities
 - exhibitions
 - sports events ...
- during 13 years more than **400 000** clients visited the HCC, from which **134 593** clients were examined on RF.

Population strategy – other activities

- Education through mass media -
 - TV, radio, newspaper,
 - regularly on the regional level
 - occasionally on the national level, (world days,...)
- National campaigns
 - Quit and Win (from 1994)
 - Challenge your heart to move (from 2005)
 - Do you know, what means 120/80 ? (from 2002)
 - Do you know your own blood pressure?

Aim

To evaluate effectiveness of population strategy
by

- Evaluation of risk factors prevalence and mean values (TCh, BMI, BP, smoking and other RF)
- Evaluation on RF decreasing in individuals – clients of Health Counselling Centres after application of non-pharmacological approaches

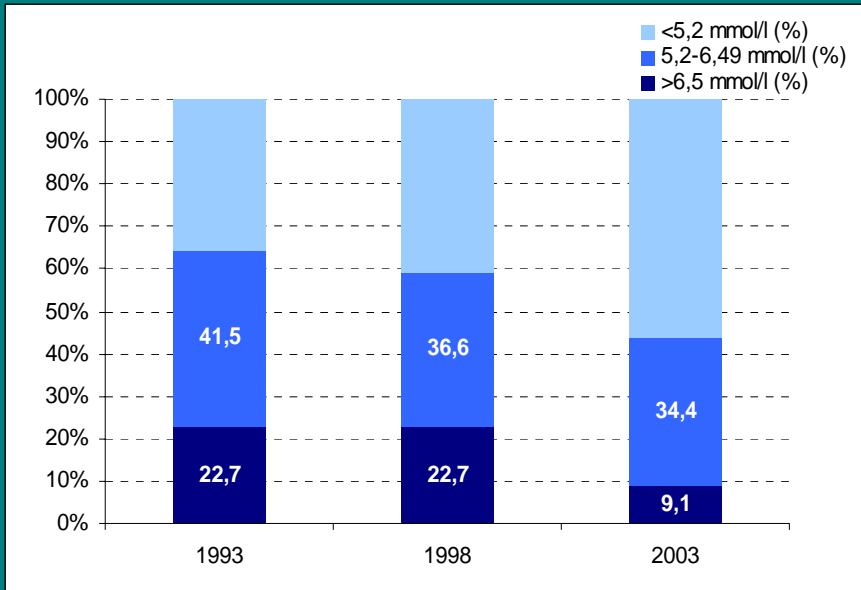
Monitoring evidence - CINDI surveys in Slovakia

■ Risk factor surveys

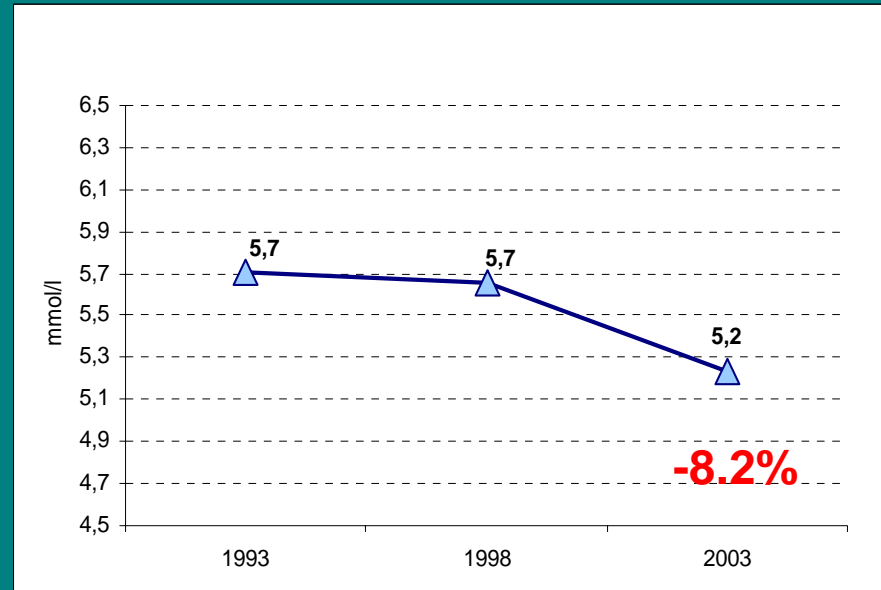
■ Model areas

- 1993 2 districts BB BR
- 1998 3 districts BB BR TV
- 2003 9 districts
BB, BR, TV, BA, DK, DS, KE, NZ, RV
- Representative random sample by uniform methods from the Register of inhabitants and uniform examination

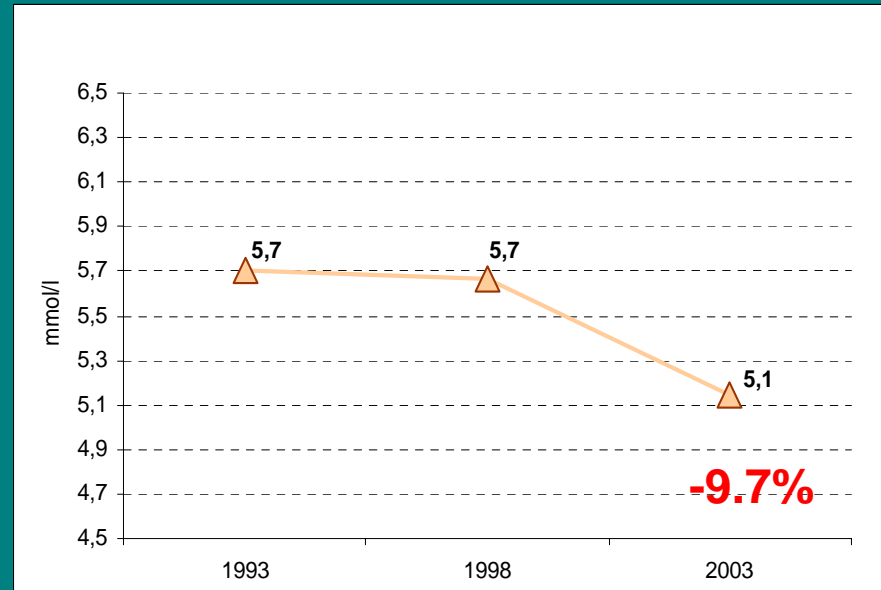
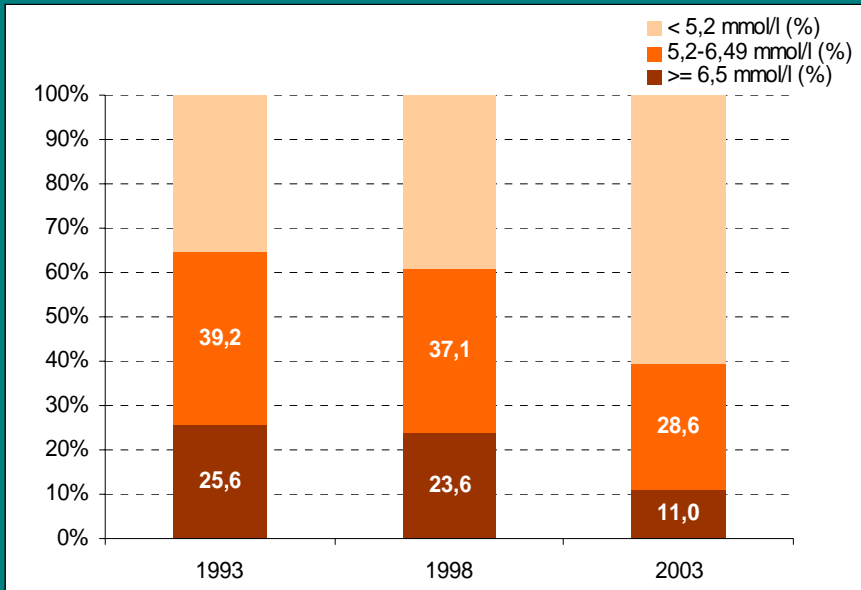
Males Prevalence



Mean



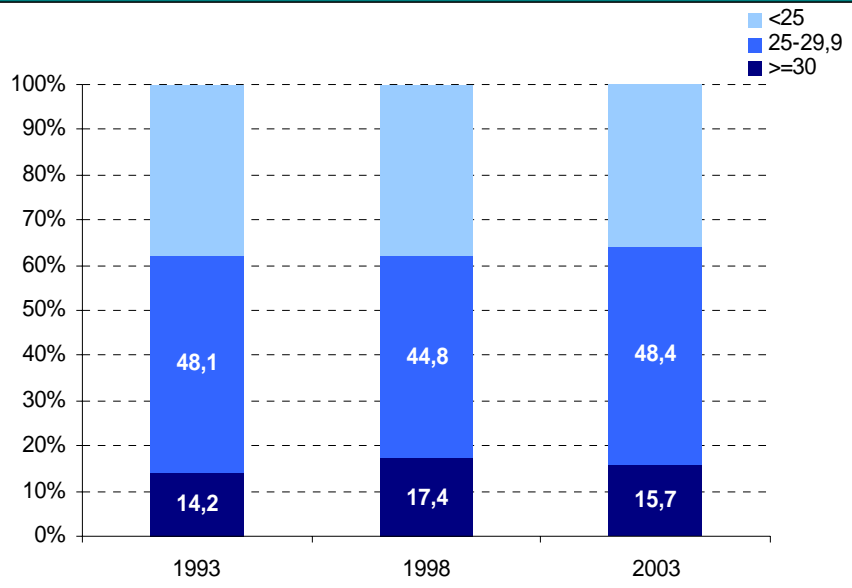
Females



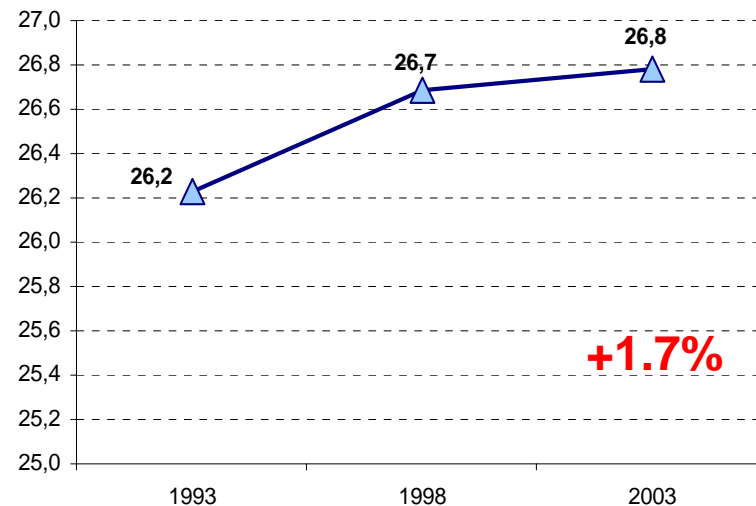
Results: BMI 25-64 years

1993-2003

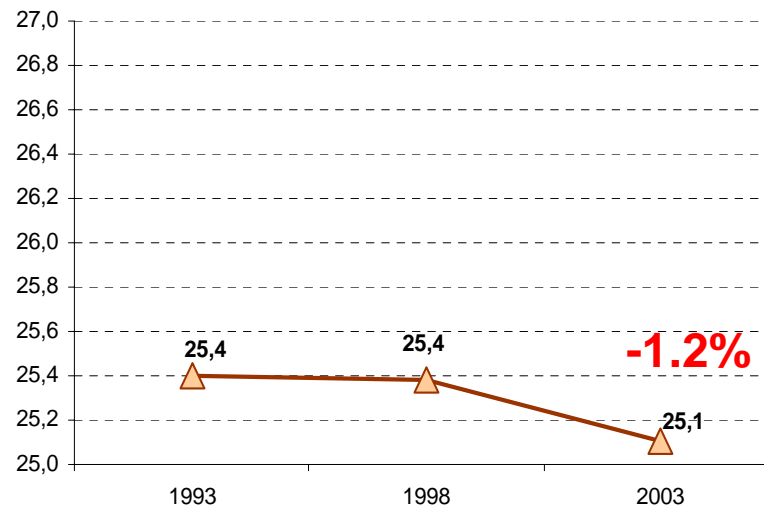
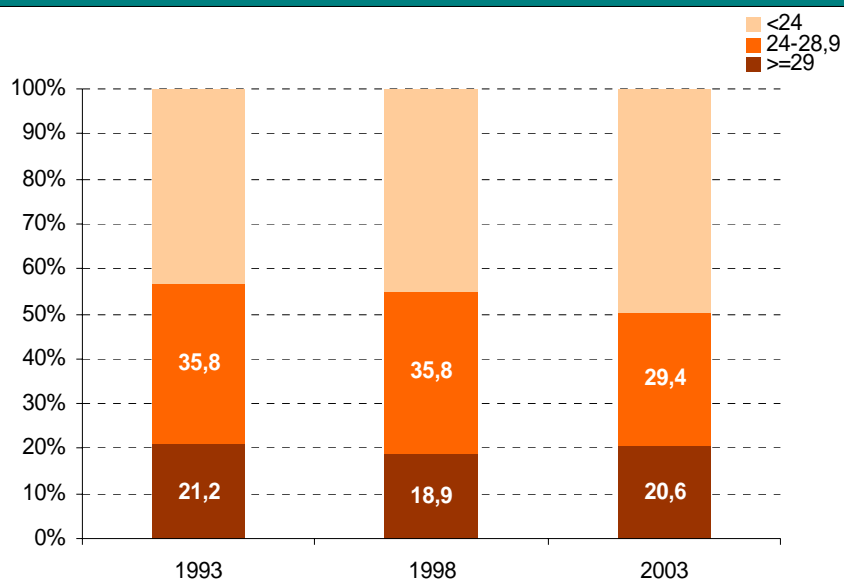
Males Prevalence



Mean



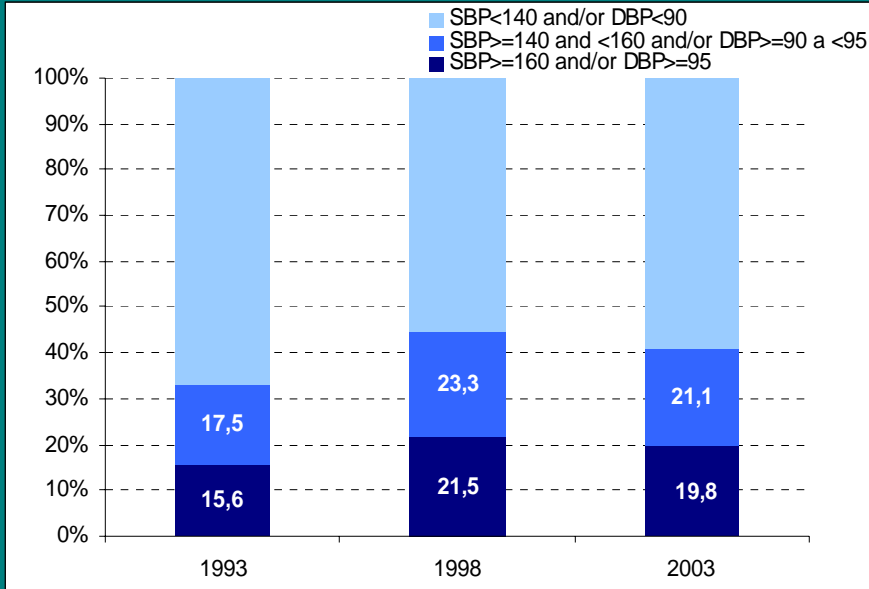
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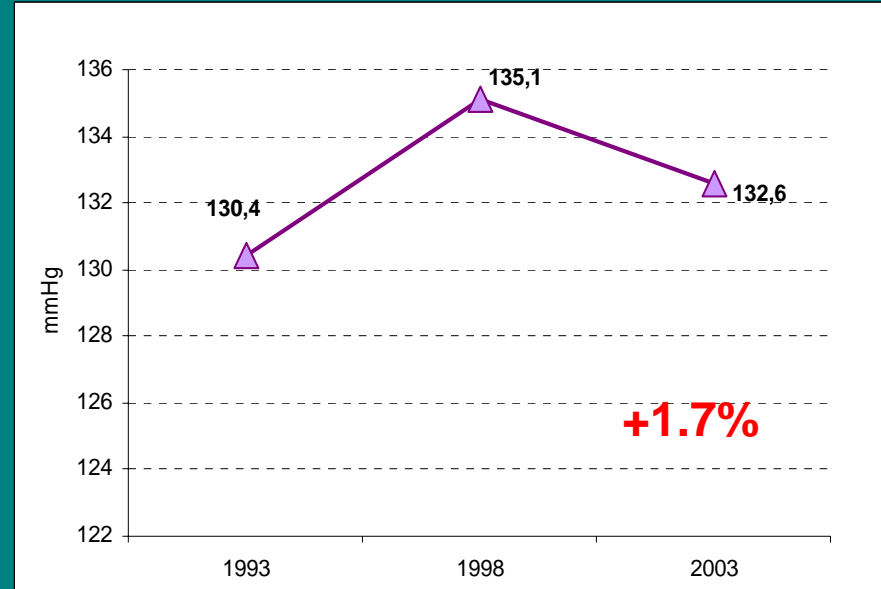
Results: Hypertension 25-64 years

1993-2003

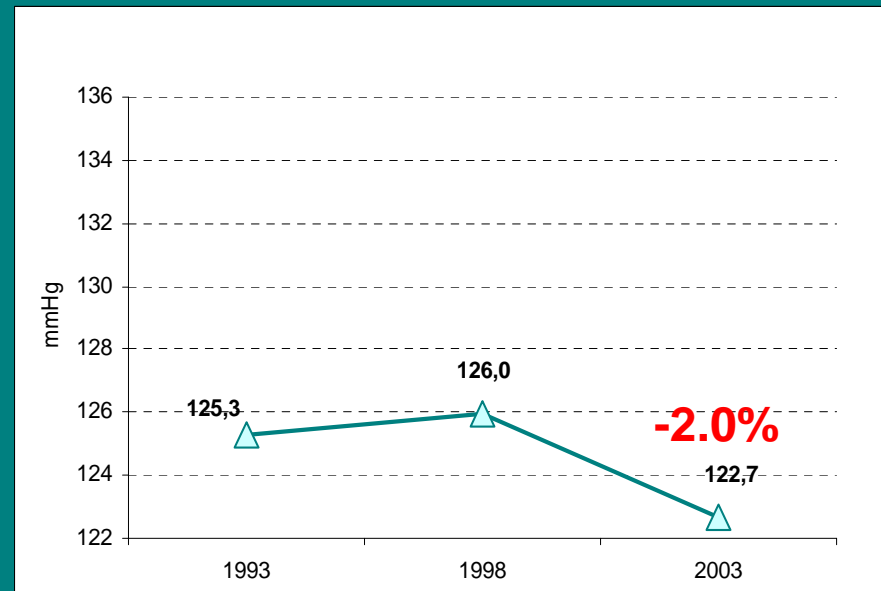
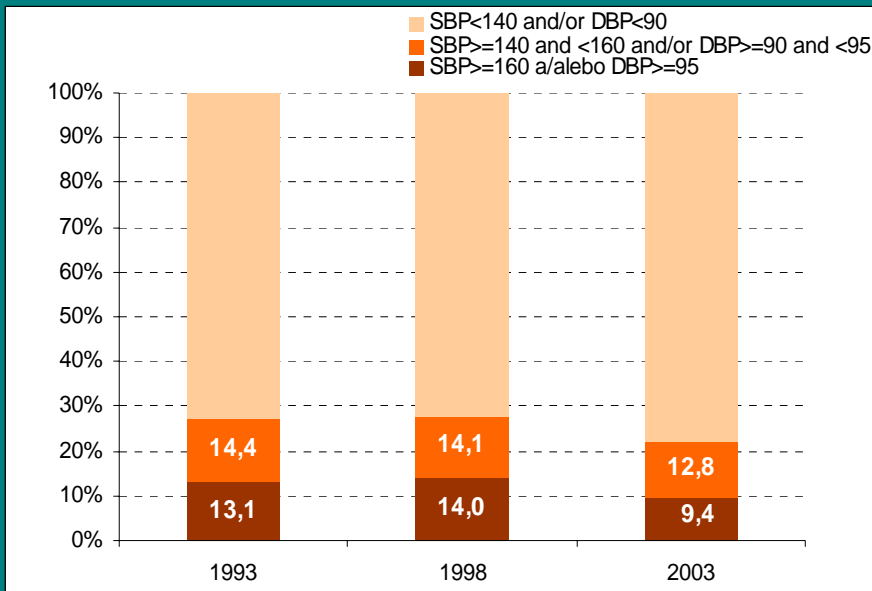
Males Prevalence



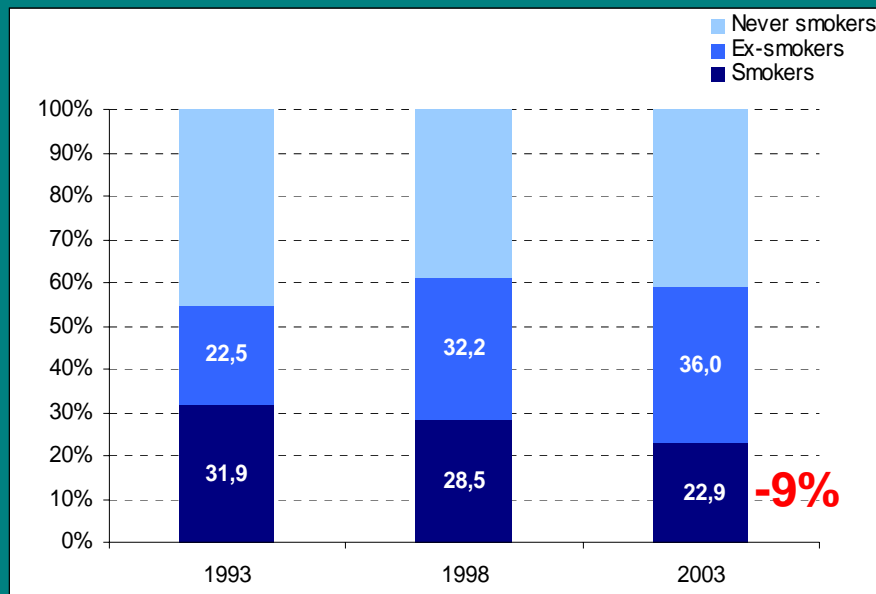
Mean



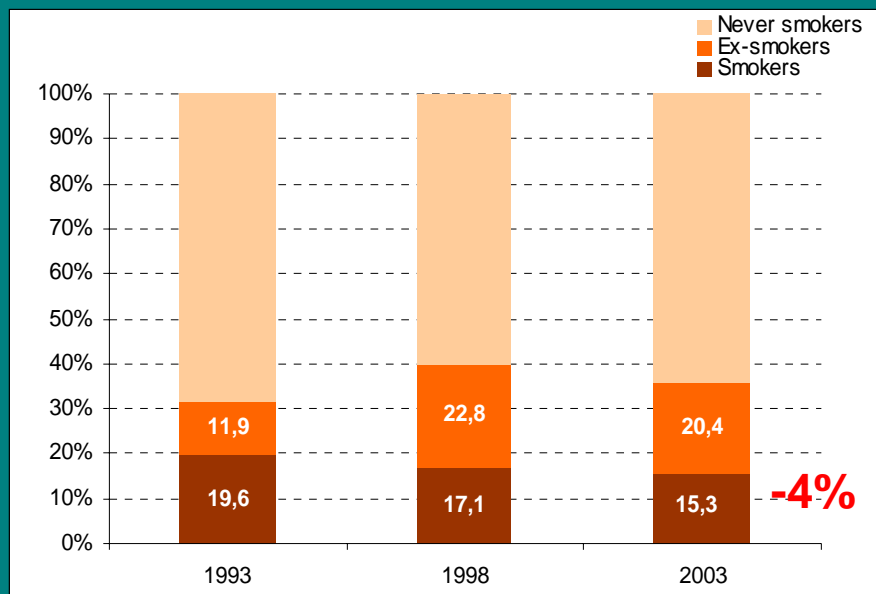
Females



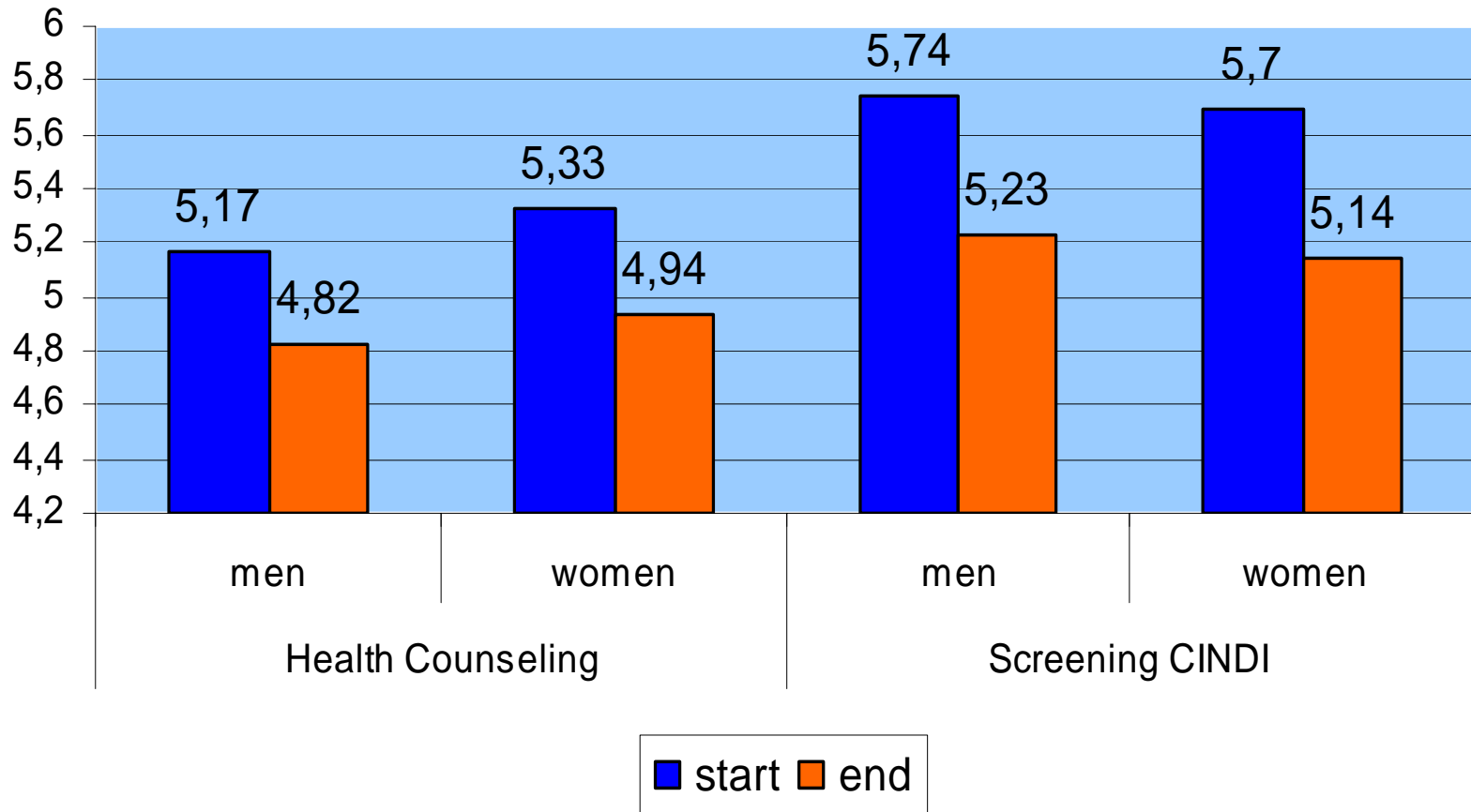
Males



Females

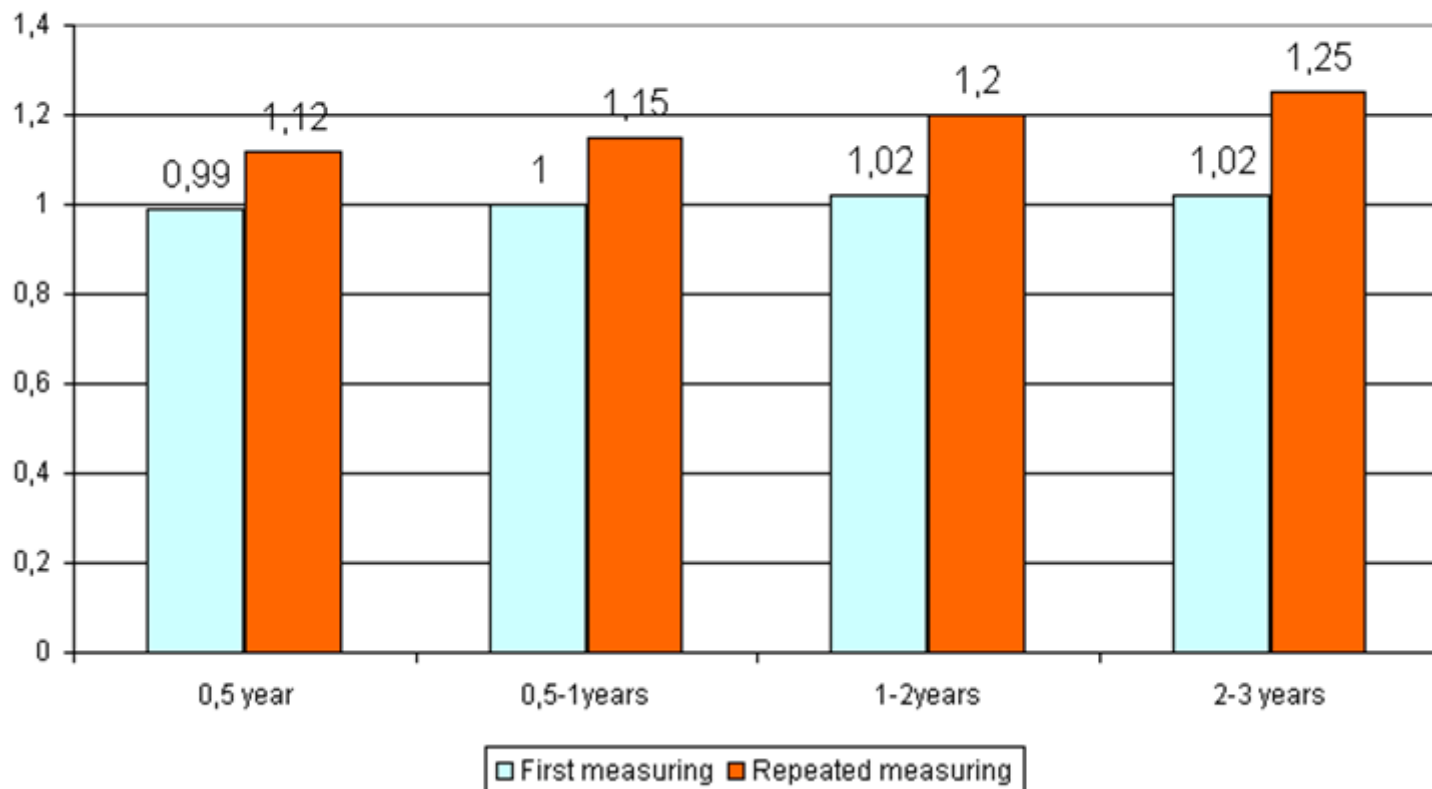


Results of individual intervention
Decrease of mean TCh
in clients of HCC and in CINDI screening



Increase of mean HDL cholesterol with duration of preventive measures application

Trend in HDL-cholesterol levels, HC in Slovakia 1993-2003 in units -mmol/l



Conclusion

The significant decrease of the most risk factors was find out in Slovak population during studied years.

1. Prevalence of smokers decreased
2. The mean values of TCH decreased
3. No changes was detected in prevalence overweight and obese individuals
4. Negative results concerning elevated blood pressure and hypertension was detected. It requires a complex solution in cooperation of intervention, primary prevention and treatment.

Conclusion

- Data analyses of individuals – client of HCC showed decrease of TCh and increase of HDL cholesterol. It is evidence that non-pharmacological treatment is working.
- All activities provided within population strategy contributed to positive changes in lifestyle of Slovak population and also positive changes in health indicators .