Countrywide Integrated Noncommunicable Disease Intervention (CINDI) Programme in Bulgaria

Introduction

Countrywide Integrated Noncommunicable Disease Intervention (CINDI) Bulgaria is a WHO coordinated initiative that aims at preventing major non-communicable diseases. The program combines activities for disease prevention and health promotion, in line with the new public health achievements of medicine. The program targets population of working age (25-64), including groups at high risk for certain diseases. In 2004 the child component of the program was introduced – "Healthy Children in Healthy Families".

Implementation of the Practice

- The objective of the program is to improve health by reducing mortality and morbidity from the major non-communicable diseases (cardiovascular, cancer, chronic respiratory diseases and others) through integrated collaborative interventions that prevent disease and promote health.
- CINDI also aims to reduce the risk of non-communicable diseases by reducing common risk factors, such as smoking, alcohol abuse, physical inactivity and unhealthy nutrition.
- Health education of the population to control the main risk factors for NCDs and health
- Capacity-building among medical specialists and program partners
- Participation of communities and institutions in program activities
- Development of guiding principles and guidelines of good practice for the professionals and partners
- Extensive IEC- campaigns, television and radio shows, publications in newspapers; conferences, lectures, seminars, consultations; health education materials, etc.
- Health education activities in CINDI zones were also directed to specific groups - ethnic minorities and disabled people. For example, for blind and people with residual vision, clubs with an exercise bike, treadmill, and steppe were provided, whereas for people with chronic non-communicable conditions support groups were developed. Free medical examinations, consultations and training on healthy nutrition, physical activity, hygiene, etc. are also provided.
- The management of the program is carried out at the central and local level. There are Programme councils, working groups on issues, public health coalitions. The program is implemented at the local level and relies on local funding from the Ministry of Health. Also, the municipal council provides funds annually and further sources of funding are also used (communities, NGOs).
- On the national level the program was funded by the Ministry of Health and on the local level - by different communities and NGOs.
- The key stakeholders are:
    - Ministry of Health
    - Working-age population and children
    - Other partners involved are:
        - Municipality and the Municipal Council; Regional Health Inspections, Regional Health Insurance Fund, hospitals, medical and diagnostic consultative centres, dispensaries,

media, NGOs, schools and kindergartens, companies, unions, clubs, youth homes, pharmaceutical companies, police, traders, manufacturers etc.

Result:

The conducted monitoring demonstrated positive change in the population's behaviour on health for the 10-year program period established by the reduced levels of hypertension and cholesterol, the increased number of people with normal weight and the observed positive changes in nutrition. Overall, the mortality rates from major NCDs have decreased.

Main positive changes at a population level were:

- Decreased number of individuals who are carriers of two, three and four health risks (smoking, high cholesterol, hypertension, obesity, etc.)
- Decreased proportion of men with hypertension (by 6.2) as well as women (by 10)
- Reduced by 0.2 mmol/l the average levels of cholesterol, population levels of triglycerides - below 1.7 mmol/l
- Increased proportion of people with normal weight, slightly increased share of these with obesity, lower number of overweight individuals
- Positive changes in nutrition: almost every second individual consumes fish and chicken twice a week; reduced consumption of salt; increased consumption of fresh fruits and vegetables
- Smoking among men has decreased
- Alcohol abuse levels have reduced for men
- Overall, mortality rates from major diseases have reduced

Lessons Learnt

CINDI has proven an effective international model program for the prevention of chronic non-communicable diseases. The program combines activities for disease prevention and health promotion in line with the public health achievements of medicine. CINDI-Bulgaria managed to achieve positive results in the zones, with positive changes in the risk factors of health, with changes in the indicators of the health status of the population, which appear to be significantly higher results than the funds invested in the program

Conclusion

The program was funded by the municipalities and the activities are carried out by teams of CINDI, with the support of many partner institutions and organizations, both at the central and local levels. The population actively participated in the activities and results demonstrated a positive change in population's health behaviour.

Further Readings:

Movsisyan, N. K., Vinciguerra, M., Medina-Inojosa, J. R., & Lopez-Jimenez, F. (2020). Cardiovascular Diseases in Central and Eastern Europe: A Call for More Surveillance and Evidence-Based Health Promotion. Annals of global health, 86(1).