CINDI / Countrywide Integrated Non-Communicable Disease Intervention Bulgaria

Title in original language:

СИНДИ /Интервенционна програма за интегрирана профилактика на хронични незаразни болести

Which 'life stage' for CVDs prevention targets the intervention?

Adulthood - The life stage targeted is population of working age (25-64), including groups at high risk for certain diseases, CINDI programmes also involves a child component, which includes students (14-18), teachers, and parents.

Short description of the intervention:

The aim of CINDI program is to improve health by reducing mortality and morbidity from the major non-communicable diseases through integrated collaborative interventions that prevent diseases and promote health.
Target group - population of working age (25-64), including groups at high risk for certain diseases; Target group of child component of the program - students (14-18), teachers, and parents.
CINDI Bulgaria is a national program with 9 demonstration zones and corresponds to the national health policy. CINDI approves disease prevention through the existing health structure, with the active participation of the society and individuals. There are specific goals and objectives, based on accurate epidemiological framework, which is constantly monitored. Bulgaria is included in the CINDI Program in 1985 under the collaboration of the Ministry of Health and WHO within 5 zones. However, after the conduction of a survey in the 5 demonstration zones, the activities are suspended because of the socio-political changes within the country. Ten years later, in 1995, Ministry of Health Bulgaria joins again the CINDI network. In the period of 1996 - 1998 the program starts in 8 demonstration zones with total population of about 700 000 individuals. Intervention measures for health promotion and risk factors reduction for the most common chronic non-communicable diseases developed in zones after 2000. For the period 2000 - 2010 there were conducted 4 monitoring, assessing behaviour change of the population's health. A database was developed. Monitoring showed positive changes on population level since the start of the programme. In 2004 the child component of the program was introduced – "Healthy Children in Healthy Families". It was implemented in 7 zones and is also currently operating on a local level.

Was the design of the intervention appropriate and built upon relevant data, theory, context, evidence, previous practice including pilot studies?

Yes. There have been used the Cindy Protocol and the experience of countries participating in the network program. Before its launching pilot studies were conducted in the demonstration zones on the basis of which priorities and future actions were identified.

Did the design thoroughly describe the practice in terms of purpose, SMART objectives, methods?

Yes. Objectives, tasks and activities under the program are scheduled in details. Target groups, places of intervention, management of the program and its funding have been defined.

To which type of interventions does your example of good practice belong to?

CINDI includes more than 30 countries in Europe and Canada, including Bulgaria. For each country, the program is of national importance, as is realized in demonstration zones, and for the development is responsible the relevant Ministry of Health.

How is this example of good practice funded?

On national level the program is funded by the Ministry of Health. On local level – by Community and NGO.

What is/was the level of implementation of your example of good practice?

On national level - Ministry of Health and NCPHA. On local level – Community, Regional health inspections.

What are the main aim and the main objectives of your example of good practice?

The main objective of CINDI is to improve health by reducing mortality and morbidity from major non-communicable diseases (cardiovascular, cancer, injuries, chronic respiratory diseases and others) through integrated collaborative interventions that prevent diseases and promote health. CINDI aims to reduce the risk of non-communicable diseases by reducing common risk factors, such as smoking, alcohol abuse, physical inactivity and unhealthy nutrition.

Please give a description of the problem the good practice example wants to tackle:

Chronic non-communicable diseases in Bulgaria are responsible for over 80% of all deaths. The main cause of NCD is the diseases of the circulatory system - 67.5%, followed by malignant neoplasms with 16.4% and others. These diseases are the result of common risk factors - smoking, alcohol abuse, unhealthy nutrition and low physical activity. Within CINDI program, numerous educational and training activities on a population and local level have been done with the aim to reduce the level of the main risk factors for the occurrence of chronic non-communicable diseases.

Is your example of good practice embedded in a broader national/regional/ local policy or action plan?

Yes, CINDI is part of national and regional health policy.

Implementation of your example of good practice is/was:

Continuous (integrated in the system)

Target group(s):

Target group - population of working age (25-64), including groups at high risk for certain diseases; Target group of child component of the program - students (14-18), teachers, and parents.

During implementation, did specific actions were taken to address the equity dimensions?

Yes. The target groups for interventions under the program are: population at the working age (25-64 years), incl. groups at high risk for certain diseases, unorganized population, children and students at the age of 14-18 years. Through media and other mass information media, and organized meetings with various institutions and organizations involved in the program, awareness of the population about goals, objectives, participants, etc. under the program was created.

In design, did relevant dimensions of equity were adequately taken into consideration and targeted?

Yes. The evaluation of the program is based on monitoring data, which includes mandatory evaluation indicators (age-sex composition of the population, level of education, factors associated with lifestyle; biological risk factors,

etc.); recommended (marital status, occupation, etc.); selective (diet of the population; environmental factors - home, work, family, etc.).

Which vulnerable social groups were targeted?

Ethnic minorities and disabled people. Health education activities in CINDI zones are directed to specific groups (ethnic minorities). They are free medical examinations, consultations and trainings on healthy nutrition, physical activity, hygiene, etc. Special emphasis is given to disabled people. For blind people and people with residual vision are provided clubs with exercise bike, treadmill and steppe. Information-consultative health centre for health education activities was created. There are also support groups for people with chronic non-communicable diseases and others.

Did the intervention have a comprehensive approach to health promotion addressing all relevant determinants and using different strategies?

Yes. The main strategies of the program are directed to: health education of the population to control the main risk factors for NCDs and health; building capacity among medical specialists and program partners; participation of communities and institutions in program activities; development of guiding principles and guidelines of good practice of the professionals and partners, and information materials to the population, etc.

Was an effective partnership in place?

Yes. The program involves many partners - 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.

Was the intervention aligned with a policy plan at the local, national, institutional and international level?

The program activities are consistent with national health policy, but also with the policy of CINDI programme.

Was the intervention implemented equitably, i.e. proportional to needs?

Yes, so far as it was possible, given the financial resources that was available to the program.

Were potential burdens, including harm, of the intervention for the target population addressed?

Yes. Population and institutions involved in the program as well as organizations were informed on the objectives, tasks and activities set out therein.

Were the intervention's objectives and strategy transparent to the target population and stakeholders involved?

Yes. There have been actively used the media and other mass information media, and also a number of meetings were organized with various institutions and organizations dealing with issues of public health.

Did the evaluation results achieve the stated goals and objectives?

Yes. The conducted four monitorings established positive changes in population's behaviour on health.

Did the intervention a defined and appropriate evaluation framework assessing structure, processes and outcomes?

Yes. To monitor the process of implementation of the program activities and their effectiveness it has been used a Manual for monitoring and evaluation of the results developed by WHO experts to the countries participating in CINDI programme. The collection of all data is carried out by standardized procedures described in particular documents

Did the intervention have any information /monitoring systems in place to regularly deliver data aligned with evaluation and reporting needs?

Four monitorings have been conducted to assess the process of changing the population's behaviour on health - 2000, 2002, 2004 and 2007. There is also a database. Reports that identify priority areas and future intervention activities are prepared, too.

Who did the evaluation?

An internal party (representatives of the intervention, own organisation).

Specifically, what has been measured / evaluated?

Process evaluation: Four monitoring procedures were implemented with the aim to evaluate behaviour change of population's health – in 2000, 2002, 2004, and 2007. A database was developed. The results from the monitoring demonstrated positive changes on a national level.
Evaluation of the impacts/effects/outcome (please describe the design): The evaluation of the activities and the results from the implementation of the program are carried out on the basis of data monitoring on the lifestyle and the level of risk factors. The components of the evaluation include: relevance, adaptability, degree of performance, efficiency, productivity of research, impact.

What are the main results/conclusions/recommendations from the evaluation?

For the 10-year program period, the main positive changes at a population level are:

- It has decreased the number of individuals who are carriers of two, three and four health risk: smoking, high cholesterol, hypertension, obesity;
- It has decreased by 6.2 points the proportion of men with hypertension, and 10 points - in women;
- It has reduced by 0.2 mmol/l the average 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, reduced the proportion of overweight individuals;
- There are 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;
- Physical activity is increased but not yet sufficient to achieve a preventive effect;
- Smoking among men has decreased by 10 points, among women - increased by 3 points (a fact specific to the countries in Europe).
- Alcohol abuse is reduced by 4 points for men, for women - unchanged;
- Mortality rates from major diseases, the objective of the program, have reduced.

Is the evaluation report available, preferably in English or at least an English summary?

Vasilevski, N., G. Tzolova, P. Dimitrov, A. Manolova. Surveillance of risk factors for non-communicable diseases among population aged 25-64 within the zones of CINDI Program – Bulgaria`2007. Bulgarian Journal of Public

Health, Vol II, № 3, 2010, page 1-34. It is available free on the website of National Centre of Public Health and Analyses (http://ncpha.government.bg).

Was there a follow-up or is any follow-up evaluation planned in the future?

The changes in Bulgaria in recent years have closed down a number of prevention programs in 2010, including CINDI, despite the positive results that CINDI has achieved. But, however, the experience of CINDI was used to create the National Program for Prevention of Chronic Non-communicable Diseases 2014 - 2020.

Who implemented the intervention?

The implementation of the programme is done on a central and local level. A team (the National Centre of Public health and Analyses) is responsible for its implementation, guided by the programmes's director. On a local level, the activities are implemented by local coordinators (individuals from the National Health Inspectorates), programme boards and working groups, in which medical and non-medical experts are involved.

What core activities are/have been implemented?

Huge education and training activities at a population and high-risk level are done annually: campaigns; world theme days and holidays, focused on changing the behaviour of population health; TV and radio shows; publications in newspapers; conferences, lectures, seminars, trainings, consultations; health education materials, etc.

Was the intervention designed and implemented in consultation with the target population?

Yes. Surveys have been periodically conducted among the population to assess the implemented program activities. Through the media the program and its achievements have been promoted before each survey the populations are acquainted with its objectives and design, etc.

Did the intervention achieve meaningful participation among the intended target population?

Yes, the population in the demonstration areas is actively involved in conducted events under the program.

Did the intervention develop strengths, resources and autonomy in the target population(s)?

To the possible extent, given the socio-economic situation of the country over the recent years.

Was the target population/s defined on the basis of needs assessment including strengths and other characteristics?

Yes. Both for the population of 25-64 years, given the incidence of NCDs in the country, and students of 14-18 years, when risk factors for these diseases were formed.

Was the engagement of intermediaries/multipliers used to promote the meaningful participation of the target population?

The program has multiple partners, but mainly the activities are realized by teams in CINDI demonstration zones.

Is the continuation of the intervention ensured through institutional ownership that guarantees funding and human resources and/or mainstreamed?

Yes. The program is funded by the municipalities and the activities are carried out by teams of CINDI, together with their partners.

Is there a broad support for the intervention amongst those who implement it?

Yes. Program activities are carried out with the support of many institutions and organizations, both at central and local level.

Is there a broad support for the intervention amongst the intended target populations?

Yes. The population actively participates in program activities and results of the studies show a positive change in population's behaviour on health.

Did the intervention include an adequate estimation of the human resources, material and budget requirements in clear relation with committed tasks?

Yes. Programme councils are established to plan, organize and report the resources (human and financial) necessary for the program activities.

Were sources of funding specified in regards to stability and commitment?

Yes. The program is implemented at the local level and relies on local funding during the first years of support from the Ministry of Health. The municipal council provides funds annually by presented preliminary cost assessments. Other sources of funding are also used.

Were organisational structures clearly defined and described?

The management is carried out at central and local level, with clearly defined responsibilities and tasks. There are Programs councils, working groups on issues, Public health coalitions.

Is the potential impact on the population targeted assessed (if scaled up) ?

The program has set clear goals for the prevention of NCDs and risk factors leading to their occurrence as well as a deadline for achieving them.

Are there specific knowledge transfer strategies in place (evidence into practice)?

There have been used various methods and approaches to increase the knowledge of the population, using good practices implemented and generating results in the other countries participating in the program.

Is there available an analysis of requirements for eventual scaling up such as foreseen barriers and facilitators?

The evaluation of the program is based on monitoring data. The components of the evaluation include: relevance, adaptability, level of performance, effectiveness, research productivity, impact, efficiency (comparison of resources invested (inputs) - financial, human, etc. with the results obtained)

What were, in your opinion, the pre-conditions for success? Were there any facilitating factors?

The results are due to the policy of the program and the numerous professionally conducted intervention measures within CINDI zones. The success of the program is linked with the great efforts of the National Centre of Public Health and Analyses, the Regional Health Inspections and the structures of the program, the participation of

municipalities, public health coalitions, NGOs and others, and also the support of the Ministry of Health, i.e. the engagement and collaboration of many partners.

What were, in your opinion, the main lessons to be learned?

CINDI has proven effective international model programme for the prevention of chronic non-communicable diseases. The program combines activities for disease prevention and health promotion, in line with the new 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 programme.

References to the most important articles or reports on the intervention

- Vasilevski, N., G. Tzolova, P. Dimitrov, A. Manolova. Surveillance of risk factors for non-communicable diseases among population aged 25-64 within the zones of CINDI Program – Bulgaria`2007. Bulgarian Journal of Public Health, Vol II, № 3, 2010, page 1-34. (http://ncpha.government.bg/files/Broi_3_2010_GurnalOZ.pdf)
- Tzolova, G., N.Vasilevski, P.Dimitrov, A. Manolova. Surveillance of risk factors for non-communicable diseases among children aged 14-18 years within the zones of CINDI program – Bulgaria '2008. Bulgarian Journal of Public Health, Vol 2, № 3, 2010, page 35-59. (http://ncpha.government.bg/files/Broi_3_2010_GurnalOZ.pdf)
- Staykova J., G. Tsolova, R. Chilingirova. Study of health risk factors among the pupils aged 14-18 in municipality of Kardzhali, Republic of Bulgaria. 5th Balkan Congress of History and Ethics of Medicine, Istanbul, 11 to 15 October 2011. (http://www.teth.org.tr/Files/etkinlikler/Balkan_program.pdf)
- Tzolova, G., M. Nikolova. Analysis of the survey data for carriage of risk factors for health among children aged 14-18 years - program "Healthy children in healthy families", municipality of Ruse, RHI, 2013.
- Dimitrov, P., G. Tzolova, A. Manolova E. Teolova, A. Koteva. Overcoming health inequalities in the municipality of Lovech - Bulgaria through promotion of health throughout life. S., 2014.

Other relevant documents:

- Manolova, A., G. Tzolova, P. Dimitrov, E. Teolova. Department of medical professionals from health clinics and schools. NCPHA, 2013.
- Tzolova, G., A. Manolova, P. Dimitrov. Health promotion in schools. Departments. NCPHA, 2013.
- Tzolova, G., A. Manolova, P. Dimitrov. Knowledge, skills and attitudes of students for a healthy lifestyle. Pediatrics, Supplementum for GP 1, 2013.
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- Tzolova, G., A. Manolova, P. Dimitrov, K. Evstatieva. Alcohol consumption among students 14-18 years Practical Pediatrics, 7, 2014.

Contact details of person who may be contacted for further information

Assoc. Prof. Galya Tsolova
Tel.no. (359 2) 8056201
E-mail: gal@ncpha.government.bg

Prof. Plamen Dimitrov
Tel.no. (359 2) 8056420
e-mail: p.dimitrov@ncpha.government.bg