Health policy in the field of prevention and the promotion of the diseases in Bulgaria - evaluation of the effectiveness

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Introduction

Prevention of disease is one of the main challenges to public health and the Bulgarian society in recent years. More and more are data that prove, that the main risk factors for public health are associated with harmful effects of the various components of the environment - physical and socio-economic, concern behavior and' s distorting style and way of life.

Experts, dealing with the problems of public health, should offer the public a new look to health of the population to rational use of limited resources in the health care system and achieve a greater degree of conservation of life and improve its quality. These approaches may not be provided by the traditional medical (clinical) interventions, due to their limited (an individual) range.

Development of practical approaches and methods of intervention, related to the prevention of disease, based on the concept of action on the basis of the study of preventable events through study of the risk and risk approach.

Preventable events shall be used as a measure of the problems encountered in human life under the influence of the various risk factors. This are events, *which would not have happened, if there are no strong exposure to a given factor or no deficiencies in standard measures health care interventions or curative care* . These events vary according to development of health care system and any modern country must be able to define. This type of event appear as health risk and economic burden of the health system, the social insurance funds and not in the last place for the patient. Must be taken into account that there are certain conditions, which are the common preventable or curable and therefore their careful study is of particular importance for the adoption of certain active health interventions.

The study of the risk[1] is to be defined by appropriate epidemiological approaches people with higher relative or attributive risk. Determination of the risk, its carefully defining, studying its impact on a given health phenomenon, is etc. **Risk approach**, which is directed to of differentiation on a specific population group with a common risk characteristics, among which is to be implemented appropriate health care interventions for reducing the prevalence and mortality or to increase the quality of life.

When we have to prevent the disease, the next step is to identify appropriate and feasible methods or to develop tactical strategies for achieving it. This allows for clear definition of the methods and the necessary resources for the implementation of the objectives. Theoretically defensible and developed **practical methods of conduct** aimed at public health are *prevention*[2] - pre morbid[3], primary[4], secondary[5] and tertiary[6]; and *the*

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[1] Salchev P., Textbook in social medicine, 2009

2 **Prevention** is the set of medical and non-medical events, which the public is taking to achieve better health and quality of life by isolating the risk factors, prevention of disease and reduce their effects (chronification or permanent incapacity and disability) and premature deaths.

[3] *Pre morbid prophylaxis* - aimed at initial stage of contact between risk factor and susceptible individual and applicable to the entire population or risk groups

[4] *Primary* prophylaxis- targeting specific causal relationships employed factors affecting in preclinical asymptomatic stage and applicable to the entire population selected groups of individuals or healthy persons

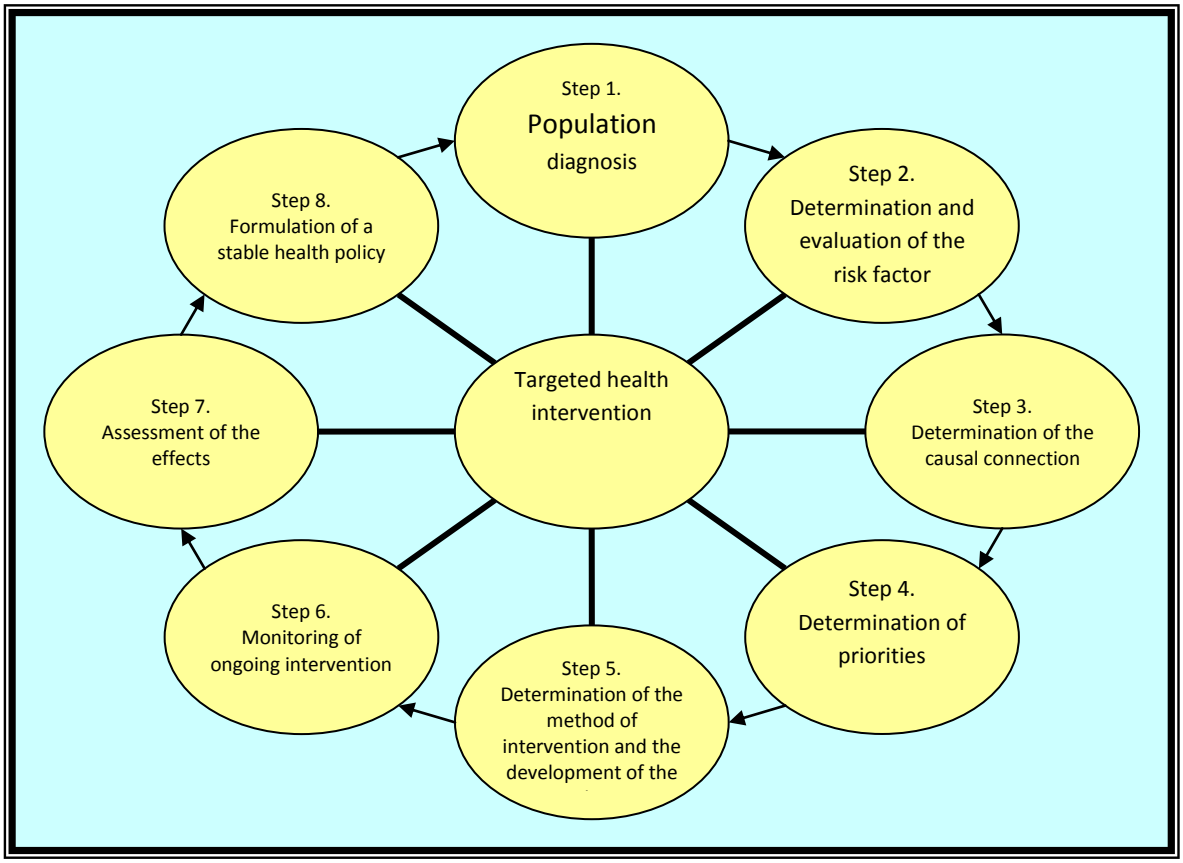
[5] *Secondary prophylaxis* - aimed at early stage of a clinically manifest disease and applicable only in patients;

[6] *Tertiary prevention* - aimed at late stage of the disease and applicable in patients.

promotion[7] of health, which differ on the site of the impact - healthy people and people at risk.

The main practical approach in determining the appropriate model for active health intervention of population level is connected with several consecutive steps (fig. 1):

Fig. 1. Practical approach to determining the model for the health intervention



Step 1. Construction of population diagnosis - is based on data from epidemiological studies by describing and quantitative determination of the characteristics of public health, among a particular population, depending on the time, place and individual characteristics of the persons included in this population.

Step 2. Determination and evaluation of the risk factor - an in-depth study of the etiology of the disease and the impact of one or a group risk factors on certain health phenomena in the population.

Step 3. Determining the causal relationship between studied sickness phenomenon and risk factor - used is analytical and experimental epidemiological studies.

Step 4. Determination of priorities - performed on the basis of measurement level of risk and quantitative determination of the effect of the elimination of the various risk factors affecting the population.

Step 5. Selection and determination of the appropriate method of health intervention - is based on knowledge of the impact of the various methods and target groups.

Step 6. Monitoring of ongoing intervention - a long period of evaluation of the various stages and the results achieved by developed an intervention plan.

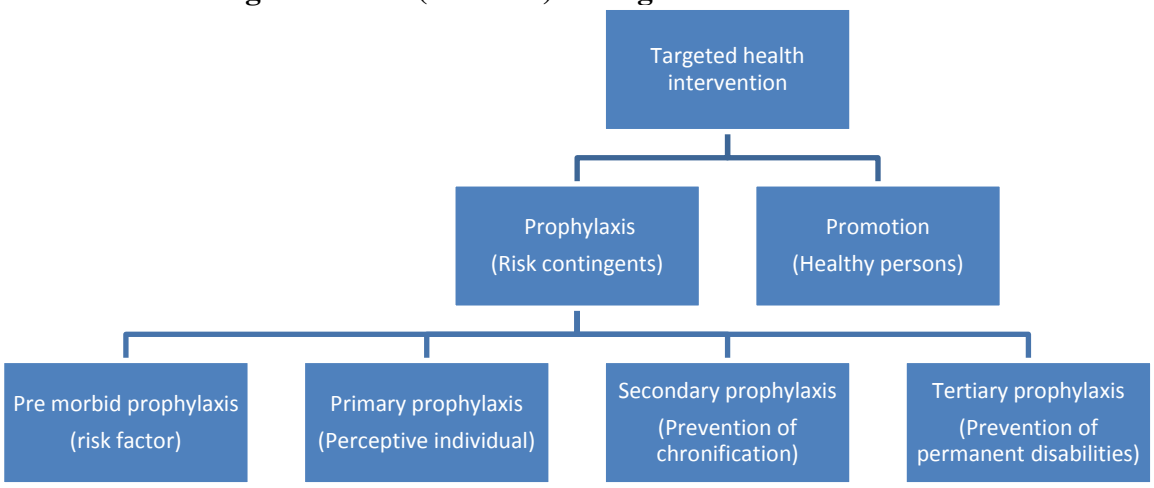
[7] Promotion of the health is an organised effort of the society for the training of the individual on the problems of personal health and the development of a public system for providing each individual standard of living, adequate to the maintenance and improvement of its health / C. Winslow, 1923/

Step 7. *Assessment of the effects* - is based on an assessment of the results of the measures of the intervention - efficiency, effectiveness, etc. Use methods of the various sciences, epidemiology, economics, sociology, etc.

Step 8. Formulation of stable health policy - on the basis of the achieved results and the evaluation of the effects are formulated certain priorities and objectives, stable over time, which apply as political decisions, related to the protection of public health - e.g. Introduction of-vaccination calendar.

Basic methods (models) of targeted health intervention are presented in the next figure.

Fig. 2. Models (methods) of targeted health intervention



EVALUATION OF PREVENTION PROGRAMS

The evaluation of prevention programs is an integral approach, and requires the participation of the scientific team of specialists, working in various areas of science.

Different are the objectives in the evaluation of prevention programs and they are related to the specific version of any of them. Under the given programs is an important assessment of the effects (the final result) - efficiency, while with other evaluation of the cost effectiveness.

The evaluation of prevention programs is a complex and difficult issue and requires training in many of the methods of social medicine and other sciences, which she used.

A summary evaluation of preventive program include:

1. *Evaluation of the implementation* - render an account the degree of implementation of the planned preventive activities and scope of the planned (target) population. Compare is carried out with pre-planned activities, and if it is established that there is gap in planned and carried out, the realization is low, and is not passed to the subsequent stages of evaluation.
2. *Assessment of the effects* - take into account is the degree of pre-planned objectives. Prior to the start of maintenance program must be previously defined criteria and indicators for the measurement, to allow for the evaluation of the effects. If the assessment has a gap or no cover of pre-defined indicators, then the program has not achieved effects and not go to the next level of evaluation.
3. *An assessment of the process* - are assessed in detail the successive steps of the program, the level of risk factors and changes in morbidity in time through the appropriate selected systems of monitoring and control. The objective is to determine the way in which

individual components of the program, integrated with the activity of the individual health care units and the activities of the Community achieve the objectives of the program.

4. *Evaluation of the effects* - this may have been accidentally notable consequences that are not scheduled in the program, but lead to notify changes in the social, psychological blow and other environment.

5. *Evaluation of the cost* - for the implementation of this evaluation are applied before everything economic methods as a cost-benefit, cost-efficiency, etc. , and gives information on the effectiveness of case means.

Major obstacles to effective policy in the field of prevention and promotion

When we analyze effectiveness of the state policy in the field of prevention and health promotion is to celebrate the following several components:

- Uncertainties and misunderstanding of the scientific terminology and the importance of the concepts, leading to insufficient knowledge and competence in consequence of the shortage in education. Conceptual apparatus in this area is to teach the scientific discipline "social medicine", which unfortunately lost its prestige and autonomy.
- Incomprehension of terminology leads to lack of sufficient knowledge of risk assessment, determination of the methods and the practical approaches in the field of prevention and health promotion - no developed and introduced practice methods of risk assessment in the field of health, as well as its management - risk management;
- Lack of competence in determining the priorities and planning of the action, as well as by state authorities, and by the interested parties in the society - patients, non-governmental organizations, professional organizations, funding bodies, etc.
- On the basis of insufficient clearly defined priorities - improper planning of resources dedicated to prevention and promotion of health.

If we look at development of scientific thinking and research in recent years in the field of prevention and health promotion will find additional evidence of inefficiency in the health policy in this area, namely, divergence of the priorities in Bulgaria, and of the leading countries. The philosophy includes the following elements:

1. Focusing on the health problems of the population as a whole;
2. Targeted action to eliminate the risk factors.
3. Support of the factors leading to better health of the population;
4. Encourage participation of the society and individual to define the problems and making decisions for persistent activities;
5. Support for an appropriate health, social and environmental policy;
6. Encourage participation of health professionals in health education and health support.

These elements redirected the overall philosophy of the priorities of health activities, namely:

FROM		**THE**
Ailing and disease	→	Healthy and health
Right to health	→	Responsibility for health
Health for the people	→	Health by people
Medical determinism and professional isolation of the medical specialists	→	Partnership and made cooperation (integrated approach).

Facts and analyzes

From the elements, and priorities, which are accepted in the world shows that our national health policy in the field of prevention and the promotion of health in a very small degree meets the them.

Table 1. Costs of the state of program budgeting (data from the website of MF)

PROGRAMS	2010	2011	Difference between 2011/2010	2012	Difference between 2012/2011
HEALTH CONTROL	19,779,307	19,890,200	101%	20,922,800	105%
PREVENTION OF NONCOMMUNICABLE DISEASES	11,511,180	11,102,900	96%	11,195,800	101%
DISEASE PREVENTION AND SURVEILLANCE OF COMMUNICABLE DISEASES	32,390,049	80,005,000	247%	59,220,400	74%
SECONDARY PROPHYLAXIS OF DISEASES	5,158,736	4,812,400	93%	0	0%
REDUCING DEMAND FOR DRUGS	1,600,302	1,896,000	118%	3,077,200	162%
OUTPATIENT CARE	5,625,554	6,593,300	117%	6,508,600	99%
HOSPITAL CARE	129,893,988	163,018,900	126%	183,995,500	113%
DISPENSARY	4,292,000	0	0%	0	0%
EMERGENCY MEDICAL CARE	76,958,042	71,804,500	93%	87,400,000	122%
TRANSPLANTATION OF ORGANS, TISSUES AND CELLS	2,499,781	2,499,800	100%	4,539,800	182%
ENSURE THE BLOOD AND BLOOD COMPONENTS	10,714,191	11,014,200	103%	13,450,000	122%
MEDICO-SOCIAL CARE FOR CHILDREN IN A DISADVANTAGED POSITION	31,765,085	32,265,100	102%	31,494,000	98%
EXPERTISE FOR DEGREE OF DISABILITY AND PERMANENT INCAPACITY	6,249,546	6,649,500	106%	7,454,000	112%
HEMODIALYSIS	38,733,281	69,883,300	180%	0	0%
OTHER HEALTH CARE	398,361	0	0%	0	0%
INTENSIVE TREATMENT	35,160,000	45,000,000	128%	0	0%
ACCESSIBLE AND QUALITY MEDICINES AND MEDICAL DEVICES	143,831,990	161,633,300	112%	16,126,600	10%
ADMINISTRATION	13,533,248	23,931,600	177%	22,800,300	95%
PROMOTION, PREVENTION AND CONTROL OF PUBLIC HEALTH	70,439,574	0	0%	0	0%
TOTAL:	570,094,641	712,000,000	125%	468,185,000	66%
% OF FUNDS ALLOCATED FOR DISEASE PREVENTION AND PROMOTION	24.43%	16.26%		19.51%	

Source: MOF, Salchev

The data presented in table. 1) shows that for the prevention and promotion of health in software budgeting of the IB are separated between 19.51 % / 2012/ and 24.43 % / 2010/ and the costs of promotion, prevention and control of public health in the last two years are reduced to zero for secondary prophylaxis for 2012 funds are 0 BGN. It is this indicates that there are inefficiencies in the determination of priorities and detention of the medical necessitarianism in the determination of the state policy. More and more in the policy shall be seen guidance to resolve the issues, related to the disease and ailing man, as well as of certain systems, although proclaimed than all the politicians of the transition commitment with the problems of prevention and health promotion.

Another interesting fact is allocation of resources in outpatient medical care in the various directions presented in the following table 2

Table 2. Distribution of types of payments in the PHC

Year	2007	2008	2010	2012
Prophylactic examinations - total	**19.15%**	**20.02%**	**21.29%**	**17.57%**
in this number:				
Prophylactic examinations for persons from 0 to 1.	11.03%	11.78%	12.72%	15.19%
Prophylactic examinations for persons from 1 to 2.	3.69%	3.92%	4.24%	5.58%
Prophylactic examinations for persons from 2 to 7.	8.71%	9.07%	9.72%	13.38%
Prophylactic examinations for persons from 7 to 18.	18.39%	17.92%	18.33%	14.47%
Prophylactic examinations of persons over 18.	51.30%	58.44%	54.99%	51.38%
Vaccination of persons from 0 to 18.	1.53%	1.51%	1.68%	2.39%
Vaccination of persons over 18.	N/A	N/A	NA/	0.57%
Activities of program "Maternal health"	0.03%	0.03%	0.04%	0.03%
Activities of program "Child health"	10.13%	9.96%	10.12%	14.98%
Per capita payment	**57.02%**	**55.55%**	**63.11%**	**46.04%**
in this number:				
Persons from 0 to 18 years	21.65%	21.01%	20.82%	21.41%
Persons from 18 to 65 years	47.74%	49.70%	55.07%	52.94%
Persons over 65 years	24.12%	23.95%	24.11%	25.65%
Accidental visits of the compulsory health insured people from other health areas	0.12%	0.12%	0.13%	0.08%
Adverse conditions	1.77%	2.84%	2.91%	2.63%
Payment for the examinations for uninsured persons	10.25%	9.98%	10.84%	0.00%
Payment for the provision of access to medical assistance outside their published work schedule of compulsory health insured people pursuant to Ordinance No. 40 of 2004				0.36%
Activities in dispensary monitoring				15.34%
Total	100%	100%	100%	100.00%

Source: NHIF, Salchev

From the data in the table shows that there is reduction of payments for prophylactic examinations of 19.15 % /2007 / up to 17.57 % / 2012/ of the total amount of payments. Payment for program "Maternal health care" is retained in the same boundaries, and the

program "Child health" there is an increase of almost 5 %. As is shown by the table has added new expense - activity in dispensary monitoring, whose title is 15.34 % of the total costs. This redistribution of costs is the expense of per capita payments, the relative share of 63.11 % /2010 / has decreased by almost 17% to 46.04 % / 2012/ In careful analysis of the documents and the data must be answered to the question, whether this has improved the overall activity in the field of prevention and the promotion of the health of the population in Bulgaria. The answer is NO, because simply we redirect the payment of the principle of "per capita" to payment for "activity". Unfortunately to be reported, that he just paid for a review, and although it is called prophylactic. And again the issue of medical determinism and fogging/revamping of typical clinical thinking behind slogan prevention and promotion.

The study of the technical effectiveness of preventive activity in the GP's in regions[8] proved to be that, for the country the average efficiency is 47.68 %.

Table 3. Descriptive statistics of the pure technical efficiency of prophylaxis

	TE_{VRS}
Mean	47,68%
SD	28,02%
Median	35,56%
Min	19,96%
Max	100,00%
Efficiency (100%)	**17,86%**
Efficiency (<100%)	**82,14%**

The technical efficiency of the prevention of regions is presented in the following table 4.

[8] See "Primary health care - facts and analyzes" by P. Salchev and all, 2011.

Table 4. Technical efficiency of the prevention of regions.

Регион/Region	TE_{VRS}	Регион/Region	TE_{VRS}
Благоевград/Blagoevgrad	30,96%	Плевен/Pleven	24,73%
Бургас/Burgas	34,14%	Пловдив/Plovdiv	75,86%
Варна/Varna	41,44%	Разград/Razgrad	100,00%
Велико Търново/ Veliko Tanovo	25,08%	Русе/Ruse	28,74%
Видин/Vidin	100,00%	СилистраSilistra	100,00%
Враца/Vratsa	26,18%	Сливен/Sliven	29,80%
Габрово/Gabrovo	40,43%	Смолян/Smolyan	65,55%
Добрич/Dobrich	29,04%	София/Sofia region	100,00%
Кърджали/Kardjali	56,94%	София (столица)/Sofia (capital)	22,29%
Кюстендил/Kyustendil	37,48%	Стара Загора/Stara Zagora	27,19%
Ловеч/Lovech	36,98%	Търговище/Targovishte	100,00%
Монтана/Montana	39,07%	Хасково/Haskovo	19,96%
Пазарджик/Pazardjik	30,24%	Шумен/Shumen	26,40%
Перник/Pernik	30,75%	Ямбол/Yambol	55,93%

Purely technical effective regions are 5 and represent 17.86 % of the total. More than half regions (17) are distinguished with a relatively low efficiency below 39 %.

Another interesting fact is mixing of the prevention and dispensary activities in one Ordinance of the Ministry of Health - Ordinance No. 39 of 2004[9] Here it should be noted that the concept and the policy in the field of the prevention is mixed completely with that of long term health care. It is still in our country can not be seen, which is residue from the old thinking that dispensary is related to long term health care to the population and population groups. This ordinance does not determine what is disease prevention, only which it shall be carried out by prophylactic examinations - a clinical approach to policy. Here it should be noted and the Appendix to this ordinance in 2011.[10] In this document is defined, that health establishments can carry out screening as a method of disease prevention. Here is the moment to be noted that the activities of health care establishments is to treat, and not to carry out prophylaxis. In the law for tissue establishments they are defined as such, which detect, and treat disease, but are not involved in preventive and promotion activities. In the second place, it should be noted that nowhere in the scientific literature is not noted that screening[11][12] is a prophylactic method, as specified in $ 2 article 20 in the above mentioned ordinance.

The examples are in confirmation the claim that there is misunderstanding and mixing in conceptual apparatus, even at the highest administrative level.

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[9] Ordinance No. 39 of the MoH for preventive examinations and dispensary /State Gazette N. 106 of 2004./

[10] ORDINANCE AMENDING THE ORDINANCE No. 39 of 2004. FOR PROPHILAXYS EXAMINATION AND DISPENSARY *Prom. State Gazette. N 58 of 29 July 2011.*

[11] **Screening** (from eng . *Screening*: Screening, selection) is a systematic, research method in the field of medicine, whose goal is the pre-selection by using the most common classification in pre-selected area of research (samples or individuals). The preliminary selection or stratification of the sample is used for the recruitment of objects, which are carriers of certain signs and will later be subjected to the particular study

[12] **Screening**, in medicine, is a strategy used in a population to detect a disease in individuals participating without signs or symptoms of that disease

What can be done to increase the efficiency?

It is perception of the fundamental principles[13], related to prevention and the promotion (Tannahile [14]) of the health in the development of a robust policy in Bulgaria, namely:

- establishing policies, strengthening health - or in other words *health in all policies*.
- creation of a suitable living environment, cover health;
- strengthening of public participation in health activities - to enhance public participation in health activities is planned process of intensification of the society for the identification and resolution of significant health problems through the use of the public structures, and resources in a manner consistent with the public interests and traditions and the creation of models of social support
- strengthening of personal responsibility and the development of personal skills, knowledge and opportunities for the strengthening of individual and public health;
- reorientation of health service to promotion of health, made co-operation and partnership to achieve better health.
- development of social responsibility for the health;
- an increase in investment in health.
- expansion of the partnership for health;
- increase the opportunities of the individual and society.
- ensure development of the infrastructure for the promotion of health.

It is the complete re lookout of curricula and programs for the training of organize and bachelor in the field of medicine with a view to introducing and their consolidation of new knowledge and skills related to prevention and health promotion. Lack of interrelated training units and concepts between clinical disciplines, epidemiology and preventive medicines leads to the introduction of the clinical trial determinism in this area.

The analysis and evaluation of existing programs require participation of multi professional teams with the aim of their adaptation to the modern requirements in this direction. That which is observed in recent years is the creation of many programs of medical professionals with clinical specializations, which do not wish to collaborate with specialists in the field of social medicine - and again clinical determinism and inefficiency of programs.

The reordering of priorities in the overall health policy and uniting the many programs and national strategies in different areas, which often reiterated their the same approaches, and this leads to dispersion of the resources in the system.

It is more and more in this area to be drawn into non-governmental organizations, which currently are consumers of health services and products, and not their promoters and founders - active civic participation.

[13] Ottawa charter, the declaration of Jakarta, Indonesia (1997)
[14] Tannahile A. what is health promotion? Health education Journal, 1985, 44