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An Outlook on the Present Circumstances and New Objectives of Public Health in the Countries of Central and Eastern Europe

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Abstract

Health promotion and disease preventive activities were mostly limited to research projects and the predominance of clinical approaches in the health system made public health profession of low profile and prestige in the Countries of Central and Eastern Europe(CCEE). The collapse of socialist governments raised the need to reassess health problems and the approaches to those of high alcohol consumption, abuse of smoking, unhealthy nutrition along too rapid economic growth.

Seven major objectives for the development of new public health are discussed in this paper: the essential objectives for new public health development in CCEE might be condensed as follows:

- a. development of a national health policy
- b. maintenance and further development of health reporting and monitoring systems
- c. restructuring of health systems in total-placing emphasis on health promotion
- d. disease prevention, consequently on international and multidisciplinary collaboration
- e. restructuring of health care system itself through decentralization, improved management and priority given to primary health care
- f. training and retraining programs of health professionals for new public health
- g. enhancing international collaboration through partnership programs

These ways should now be considered in education of public health in developing countries.

Key Words: risk factor, WHO, public health, international and multidisciplinary cooperation, research and training in public health.

I. Introduction

Life expectancy, especially in females has been gradually prolonging and Age adjusted death rate and health status have been gradually improved in CCEE which took place until the early seventies, has taken a reverse trend as from the early 90's. This is clearly shown by the

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rate of mortality caused by cardiovascular diseases which was around 500/100,000 of population throughout Europe and this after the seventies has taken completely opposite trends: decreasing in the countries of Western and increasing in Eastern Europe. Thus after two decades the rate in the latter countries were about 2.5 times as much as that in the former. There is no definite explanation for such unfortunate health trends in the CCEE; however, some assumptions can be made. The organization of the health care system, that was too much centralized and medicalized, hospital-based and physician-centered, and rigid run from the top did not leave much space for people's participation in their health matters. Social factors damaging health were neglected and environmental hazard poorly controlled. The absence of health policy did not motivate people for involvement in and responsibility for other health sectors.

Considering public health as "the Science and art of preventing disease, prolonging life and promoting health through the organized efforts of society" (definition adapted by the World Health Organization) there is a long way to go for the countries of Central and Eastern Europe (CCEE)^{1,11}

1. Especially in the CCEE, regardless their seemingly well developed system of health services, the health status of people continued to be worsening².
2. In the CCEE the number of physicians per population (around 40/10,000) and beds in the hospitals (around 120/10,000) actually ranked close to the top in the World.
3. The major final task of this paper which is defining essential objectives for public health development in CCEE there is a need to overview briefly the public health situation in these countries, the primary purpose of those which is to analyze how these problems were tackled by the former system, and to give some recommendations on how these problems might be tackled as an integral part of a country's overall development.

II. Method

1. Objective Countries

Countries which became the object of this investigation are Central Europe such as Poland, Hungary, Czech Republic and Slovakia and Eastern Europe such as, Lithuania, Croatia, Albania, Russian Federation and Latvia etc. (Fig.1) But, there are a lot of ambiguities in this concept of Central Europe and Eastern Europe, those countries are called "CCEE" together.

The reason which these countries were selected is because that materials were precisely prepared during from 70' to 90'. Furthermore, there were interesting problems because of marked variation on public health situation.

Recently, information on public health situation is obtained easily by way of Internet Transmission to WHO web sites.^{1,11}

2. Health Situation Analysis

The health situation of the population can be described in many ways with many indicators, such as morbidity, disability, mortality, social and environmental hazards, use of health



Fig.1 Map of Central and Eastern Europe (CEE)

services, self perception of health, etc. However, due to biases in type of data international comparisons might be done most reliably by using mortality data.

III. Result.

1. Infant mortality of the populations residing around the Baltic Sea is demonstrated here. The trends of total mortality and cardiovascular disease mortality are given in broader European perspectives^{2,3,11}. as taken from the data presented in Fig.2

During the last decade there was a slight increase in life expectancy in all three Baltic countries, Poland and Russia as same as in all Nordic countries and Germany. However, if the average life expectancy in the countries on the South-East coast of the Baltic Sea is compared to that of the countries on the North-West coast, a large difference is evident. The infant mortality demonstrated in Fig.3, in the countries on the South-East coast of Baltic Sea, is almost twice as high compared to the Nordic countries and Germany, although a decline is apparent.

Assessing the health status in the CCEE and the Western as well as in the Nordic part of Europe by the level of total mortality (Fig.4) a very illustrative indicator of inequities in health exists in the trend of the mortality rate caused by cardiovascular diseases (Fig.5). Twenty years ago the cardiovascular disease mortality was during the same range throughout Europe, amounting around 500 deaths per 100.000 of population (age standardized by average European population). However, in the CCEE there has been a sharp increase in cardiovascular mortality in the last two decades while a remarkable decline was registered in the rest of Europe.

Those diverging trends have resulted in the fact that cardiovascular mortality in the CCEE these days is almost twice higher compared to the Western and Nordic parts of Europe.¹

The infant mortality, in the countries on the South-East coast of Baltic Sea, is almost twice as high compared to the Nordic countries and Germany as demonstrated in Fig.3.

2. Risk Assessment

It is obvious that the description of health situation by the indicators presented above has many limitations. There, of course, are many other problems. However, considering that cardiovascular causes of death in the CCEE constitute on average between 50%-60% of all deaths, while other causes of death, cancers-between 15-20%, and external causes of death (where alcohol is number one of predisposing factor) between 10-13%, it is quite justified to look at the causes of ill-health defined by the above conditions. There are also other reasons why the type of analysis presented above is limited to the conditions described and take cardiovascular pathology as indicator for the CCEE populations. According to the analysis done by WHO, using its HFA database [2], up to 60% of changes in life expectancy are caused by changes in cardiovascular mortality. It is quite reasonable to look at the risk profile of CCEE populations by the use of conventional cardiovascular risk factors. Those risk factors

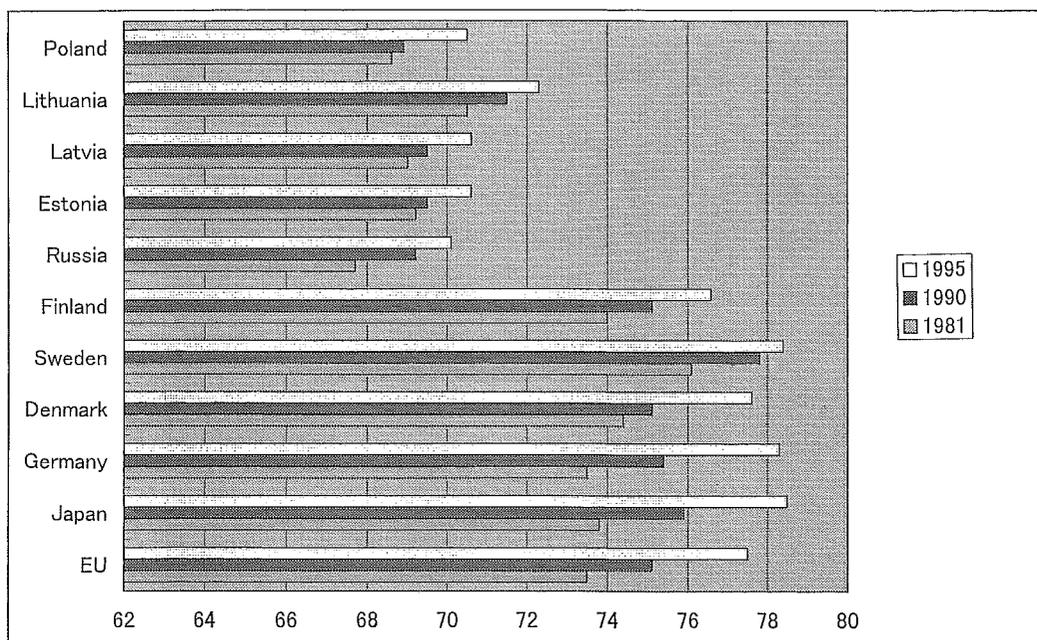


Fig.2 Life expectancy at birth in CCEE and other countries (average of both sex)

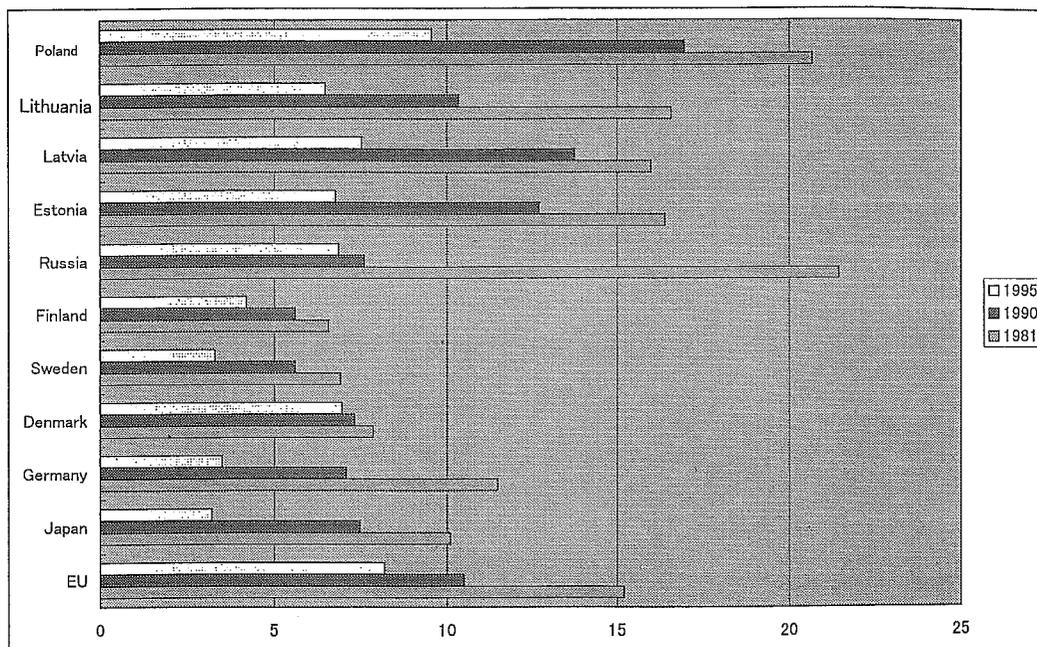


Fig.3 Infant mortality in CCEE and other countries

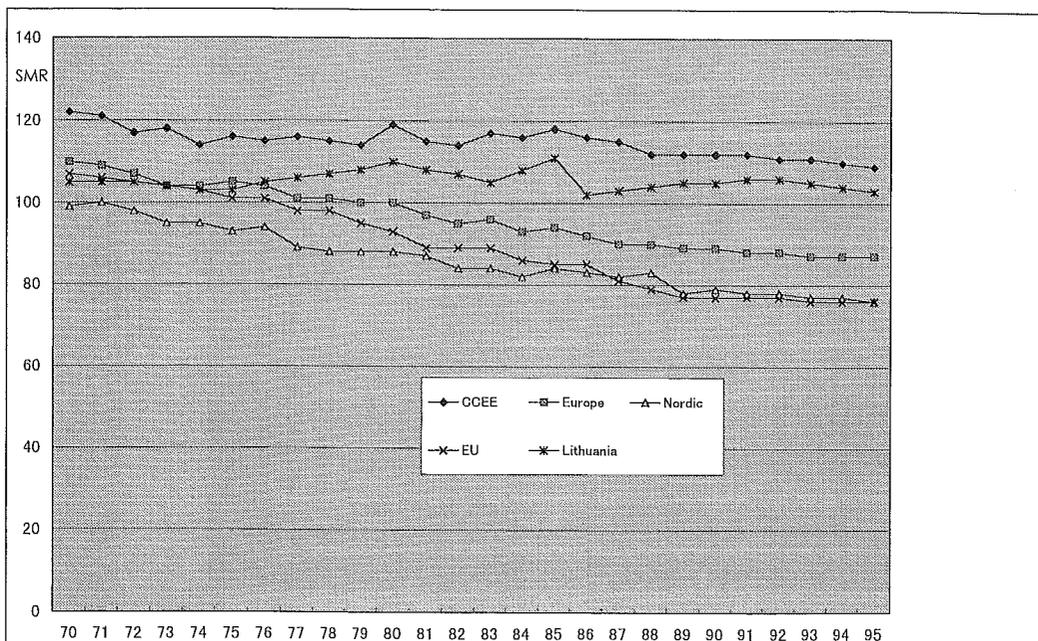


Fig.4 Trends of all-cause mortality in Europe

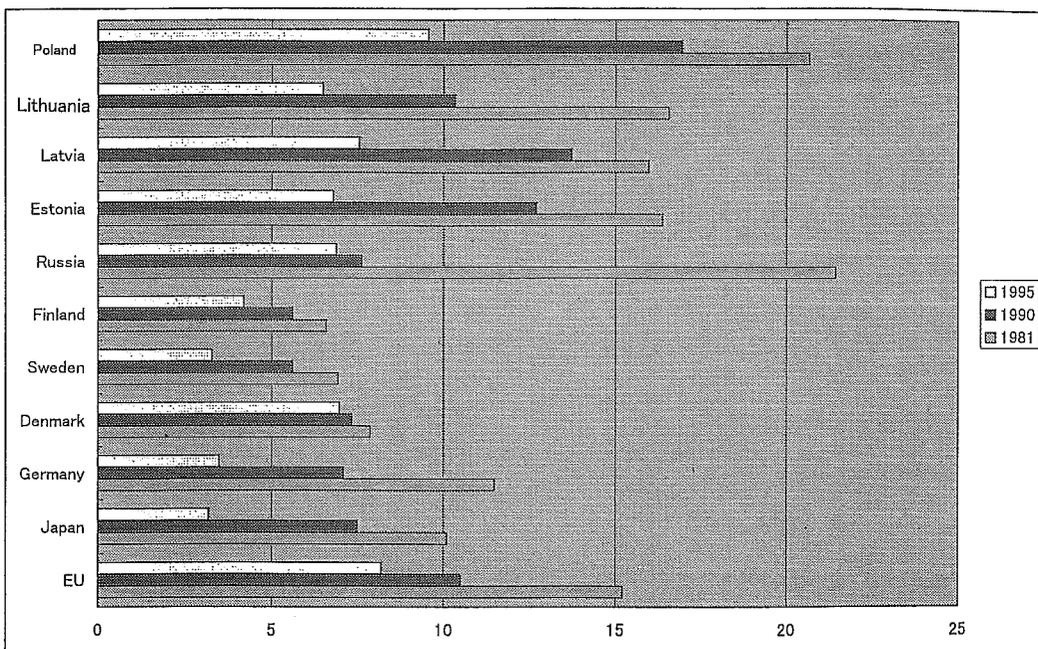


Fig.5 Trends of cardiovascular mortality in Europe

Tab.1 Risk Factors prevalence in Hungary

Risk factors	male	females
Hypertension	25%	25%
Hypercholesterolemia	20%	10%
Overweight	50%	70%
Smoking	50%	5%
Physical inactivity	50%	70%
Daily energy from fat	49%	47%

Tab.2 Risk factor levels in male population of selected CCEE and Western European countries.

Risk factors	Systolic blood pressure	Diastolic blood pressure	Cholesterol	BMI	Smoking
Czech Rep.	135	85	6.3	27.1	48.4
Hungary	137	87	5.7	26.1	49.2
Lithuania	134	88	5.9	27.5	41.7
Poland	140	89	5.5	26.4	59.9
Russian Rep.	134	89	6.3	25.7	49.3
Belgium	126	79	6.1	26.4	51.8
Germany	128	82	5.7	26.2	38.2
Iceland	123	81	6.1	25.4	51.2
Switzerland	131	80	5.5	26.8	43.7

might give important insight into the risk situation. The data presented in Tab.1 are cumulative for the age between 25 and 64 ranging 25-64 in Hungary and are taken from Kaunas-Rotterdam Intervention Study (KRIS), Multiple Factor Community Trial (MRFICT), Integrated Program for Community Health in Non communicable Diseases (INTERHEALTH) or CINDI and MONICA.

In order to compare the risk factor situation in different settings the average values of blood pressure, cholesterol, body mass and smoking habits from selected countries in CE and Western European participating in MONICA project are given in Tab.2⁵

It is evident from the data presented that risk factors are higher in the CCEE populations. It is also clear that in a situation like in Lithuania where at least one out of six risk factors is present in more than 90% of the people the most effective approach to control this situation might be a campaign with public health approach. The same applies for environmental pollution which is very high in CCEE, over consumption of alcohol and a number of social factors.

3. Inequities in Health

Although constitutionally all citizens in the CCEE had equal rights to receive health promotion and health care, unfortunately, this declarative right was not achieved in real life.

First of all, this was reflected in the organization of health care. One of the inequities has been implemented in the system from the very beginning-the high ranked party and governmental offices were served in specifically developed and high standard (as compared to ordinary ones) health services which were completely separated from the overall health care system.

To consider any kind of inequities in the socialist society was a too hot issue to address. Therefore, very few scientific information demonstrating the existence of health inequities in that type of society was available. Nevertheless, some research projects designed for quite another purpose were able to collect some information giving some insight into the issue of inequities in health. workers resulted in a substantially higher risk of prematurely dying from cancer ($p < 0.05$), cardiovascular diseases ($p < 0.01$) and all causes of death ($p < 0.01$).

In the study performed by the Central Statistical Office the socioeconomic inequalities in health in Budapest was studied in the Hungarian population.⁶

4. Past Experiences of Public Health in CCEE

The traditional public health concept and the structures developed within that concept in the CCEE, referring to water sanitation, food safety, immunization programs, control of occupational and environmental hazards, maternal and child health, school health programs, etc. Firstly, since making diagnosis was considered as natural professional duty of medical personnel, the solution of all problems related to health and even responsibility for the health of the entire community were assigned to medical personnel. As a consequence, the health sector worked increasingly in isolation since no involvement of other sectors was justified enough. Secondly, all the reasons taken together led to a priority given to hospital based health care. This meant, that the largest share of the resources allocated by the governments for health care was used to cover hospital expenses. Regardless declared priority of health as a major social task in CCEE the health systems in these countries were clearly under financed. Receiving 3-4% of GNP and estimating the real GNP in these countries in comparison to Western Europe, the health budget was very thin. Those involved in public health practice were mostly trained by the "Russian Model of Hygienists". One of the most serious constraints to have contemporary and up-to-date training was the isolation of the CCEE after the Second World War. This meant that new developments and new concepts in public health reached to the people in CCEE in a very limited way. Only a few talented researchers and practitioners were able to receive an internationally accepted education in epidemiology, biostatistics, occupational and environmental health, organization of community health programs, etc. First of all the health reporting system which had been functioning quite effectively. Mortality statistics in the CCEE was reliable enough as it was based on the functioning of health care establishments. Unfortunately, the health statistics information on a national level or even on larger regional level was not accessible neither to researchers nor to the public in some CCEE (this concerns all the countries in the former Soviet Union). Therefore, even health planners and public health organizers made decisions often based on assumptions rather

than on a hard scientific information.

Some research centers were active in population-based research and consequently various aspects of public health should be mentioned. They had the possibility to collaborate with the World Health Organization. Also they showed with their counterparts in the Western countries. This also means that around these centers, although very limited in number, there is a receptive and mature atmosphere for new ideas and concepts in public health. With some local and, international help these centers might immediately embark on partnership in health programs, and may become stimulating focal points for national health development.

5. Essential Objectives for New Public Health

It is difficult to expect a proper and rapid new public health development without a national, regional and even local health policy. Because new public health may require defining health priorities, allocation of resources according to priorities, and the mobilization of the entire society should be more actively involved into health matters. The health sector itself should also be reorganized in order to face the new requirements of modern health care.

The management of the system should be decentralized and priority should be given to primary health care. This means that there is an urgent need to start intensive training programs in public health in CCEE. The essential objectives for new public health development in CCEE are discussed in more details below.

Objective 1-Health policy development, recent days only three countries of CCEE (Hungary, Lithuania, Poland) made a considerable effort to formulate their national health policies at least in the situation that background documents for health policy development were drafted and discussed nation-wide. The plans for further steps in health policy development and preparing national health programs were made at the highest political level. It is essential that all CCEE initiate this policy formulation process as soon as possible. The issue of equity in health should always be kept on the political agenda.

Objective 2-Maintenance and further development of health reporting and monitoring system.

All possible efforts should be made to keep these systems operational, to update them to the international standards and to make them accessible to all those who may be concerned with public health. International cooperation would be most helpful here.

Objective 3-Reorganization of an overall health system. The major issue here is placing the emphasis on health promotion and disease prevention. As many social, economic, environmental, community organization factors have a decisive role, the crucial approach in reaching this objective would be the development of intersectoral and multidisciplinary collaboration for health. More responsibility for health should also be foreseen at the individual and group level. Therefore, health education activities involving the younger population will become of the utmost importance.

Objective 4-Reorganization of health care system.

Decentralization including improved management, introduction of health insurance schemes and priority to primary health care. Decentralization and health insurance do not necessarily mean privatization, as it was misunderstood in some CCEE. In the Czech Rep. privatization is planned to be organized using nonprivatized settings, like research institutions, teaching hospitals consulting centers, etc. [7].

Referring to the priority for primary health care development in some more extent,' several problems may arise since in CCEE the profession of general practice or family medicine has not existed. Considerable changes in medical training curricula and international assistance are needed as already adopted in Hungary and Lithuania^{9,10}

Some applies for many other health professions as indicated below..
objective 5-Training and retraining programs of health professionals.

There are requirements for new or enhanced roles for doctors (and other health professionals) in response to emerging or refractory social problems [8]. As far as public health is concerned the international assistance is required for training the professionals in health planning, health economy, social science, nutrition, health education, community health, program organization, health monitoring and evaluation, etc. The establishment of links between CCEE and Western Universities and public health schools is a priority. The cooperation should be considered as most effective approach to support professional education in CCEE. Recently, researchers, managers and practitioners receiving proper training in the Western institutions and western professionals are coming to CCEE as consultants and collaborators.

Specifically designed training programs should be prepared and resources for them ought to be identified.

Objective 6-Research and development supporting system.

This is an essential component' of public health development. As far as public health itself is concerned the priority should be given to applied research projects and programs which are oriented to a very pragmatic purpose to introduce sound and scientifically based changes into the system. However, the present situation in the CCEE should be analyzed very carefully by more fundamentally oriented researchers With the superb opportunity to start research projects to answer important questions which are not possible to investigate in a western society (high levels or environmental pollution, systems in transition which are motivated for rapid change, etc.).

objective 7-International cooperation.

Instead of talking about assistance from the west to the east it is much more important and justified to plan realistic partnership projects and programs in many areas of public health. The developed countries and international organizations might consider this type of partnership as an investment into the future.

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