

# NATIONAL INSTITUTE OF PUBLIC HEALTH, PRAGUE, CZECH REPUBLIC, IN 1995-2000

J. Kříž

Director

National Institute of Public Health

## SUMMARY

The National Institute of Public Health in Prague is the prominent institution in the Czech Republic responsible for public health and disease prevention. According to a conceptual document, approved by the Minister of Health in 1994, the main areas of function in the years 1995-2000 will be:

1. Science and research in preventive disciplines, especially in hygiene, epidemiology and microbiology, surveillance and monitoring of diseases and their determinants.
  2. Professional expert activities for the national health surveillance, for state administration, and for the general public.
  3. Reference activities and participation in accreditative procedures.
  4. Collaboration in development, implementation, and evaluation of the National Health Program.
  5. Participation in postgraduate education in the fields of health protection and promotion, hygiene, epidemiology and microbiology.
- The function of the Institute will continue its 70-year old tradition with strong national and international reputation.

*Key words:* public health, current trends, health promotion

Address for correspondence: J. Kříž, National Institute of Public Health, Šrobárova 48, 100 42 Prague 10, Czech Republic

## INTRODUCTION

Since its foundation in 1925, the National Institute of Public Health (the Institute) was the prominent institution responsible for public health. Its activities included disease prevention (with emphasis on infectious diseases), vaccine manufacturing, nutrition, and other important public health matters. As a result, the Institute became well recognized both at home and abroad. The Institute continues function in the spirit of its 70-year long tradition, but in addition has gained a number of new functions.

To conceptualize future development, leading experts from the Institute developed a proposal for activities and perspectives of the Institute in the years 1995-2000. This proposal was approved by the Minister of Health. The basis for the proposal is an evaluation of trends and determinants of public health in the Czech Republic. The assumption is that the same diseases that influenced health and quality of life in the first half of this decade will continue to do so in the second half as well. Chronic non-infectious diseases (such as cardiovascular diseases, tumors, metabolic disorders, and mental and behavioral problems) will predominate and their prevention, however effective, will not yet lead to a dramatic decrease in prevalence.

There will continue to be problems in the category of infectious diseases as well, where no specific preventive measures will be available against some diseases and repressive measures will not lead to their elimination. Such diseases include respiratory tract infections, gastrointestinal infections, and sexually transmitted diseases. During the establishment of prognosis for infectious disease incidence, it will be necessary to evaluate the changes in characteristics of microorganisms, which may arise through mutations or through new environmental conditions in their natural habitat (e. g. changes in human immunity).

Modern life will continue to be accompanied by various noxious factors, by presence of toxic substances acting in concert with work and leisure environment, and by behavioral risks.

Great effort will be required in the years 1995-2000 to suppress the main determinants of disease and death, which represent significant economical and ethical problems to the society. Therefore, development and implementation of positive changes in life and behavior, and decrease of health risks from the environment must be addressed. It will be necessary to maintain and expand a system of prevention and monitoring of infectious disease incidence, their causative agents, and other wide spread occurring alterations of health.

## TRENDS IN DEVELOPMENT

There has been a shift in the priorities of the Institute from the previous technocratic emphasis toward the study of methods and conditions leading to positive changes in risk behaviors of the population both at work and in private lives. Behavioral approaches will be targeted to increase resistance and passive hygienic methods will be replaced by more active methods for improving public health. The Institute will no longer react to public health problems after they happen, but will instead take a proactive role in forecasting and addressing them.

The demands for adherence to strict quality control and quality assurance (QC/QA), for exact and effective analytical processes (e. g. risk evaluation), for introduction of preventive measures, and for monitoring and evaluation of their effectiveness will sharply increase in the upcoming years 1995-2000. The requirements for postgraduate training in preventive areas and certain strategic areas of public health will expand as well.

The Institute is expecting to return among the leading institutions in the world with a strong professional and economical competence. As such, it will be able to support less developed countries, cooperate in international research projects, and thus contribute to European and world integration in the area of public health.

## APPROACHES TO INSTITUTE'S GOALS

The Institute will fulfill its goal of improving public health with the following approaches:

- studying the epidemiology of massively occurring phenomena, including chronic alterations of health,
- strengthening of information sciences and biostatistics,
- using multifactorial approaches and interdisciplinary teamwork in problem solving,
- focusing research on priority problems influencing public health,
- changing the emphasis from activities without direct bearing on health to new prospective activities such as development of molecular biology, neurobehavioral and psychophysiological methods, support of intervention programs and epidemiological studies.

## ACTIVITIES OF THE INSTITUTE

The activities of the Institute are based on two basic components of preventive health policy: protection of health and its promotion.

### 1. Protection of Health

The Institute functions as an expert for the state administration in the following areas:

- reference function (i. e. development, verification, and implementation of new methods and diagnostic preparations, including collection and study of information about a given specialized area),
- monitoring of important environmental factors and their influence on population health,
- monitoring and control of the incidence of infectious diseases, including of reportable ones,
- monitoring of significant health-related factors in the work environment,
- monitoring of the immunological profile of the population,
- standardization of lab methods, quality control of lab procedures, and reproducibility of lab results,
- development, implementation and maintenance of databases,
- compilation of background information for the establishment of standards and regulations, and their integration with EU guidelines,
- compilation of materials necessary for the function of the Ministry of Health and other administrative agencies,
- specific work for the administration or for physical and/or juridical personae requiring expertise in the public health sector,
- compilation of information about supranational legislative documents and their alignment with national legislation.

**Table 1.** Scientific and other publications in 1992–1994

Field	1992	1993	1994	Total
Microbiology, parasitology, medical entomology, resistance to antibiotics	35	36	63	134
Epidemiology, immunology, serology, vaccination	32	85	125	242
Industrial hygiene, occupational medicine, toxicology, effects of radiation	29	89	68	186
Environmental health	11	29	65	105
Nutrition, food protection	8	34	33	75
Health promotion, behavioral medicine, national health	4	10	29	43
Others (collaboration in clinical research etc.)	9	11	10	30
Total	128	354	393	815

### 2. Promotion of Health

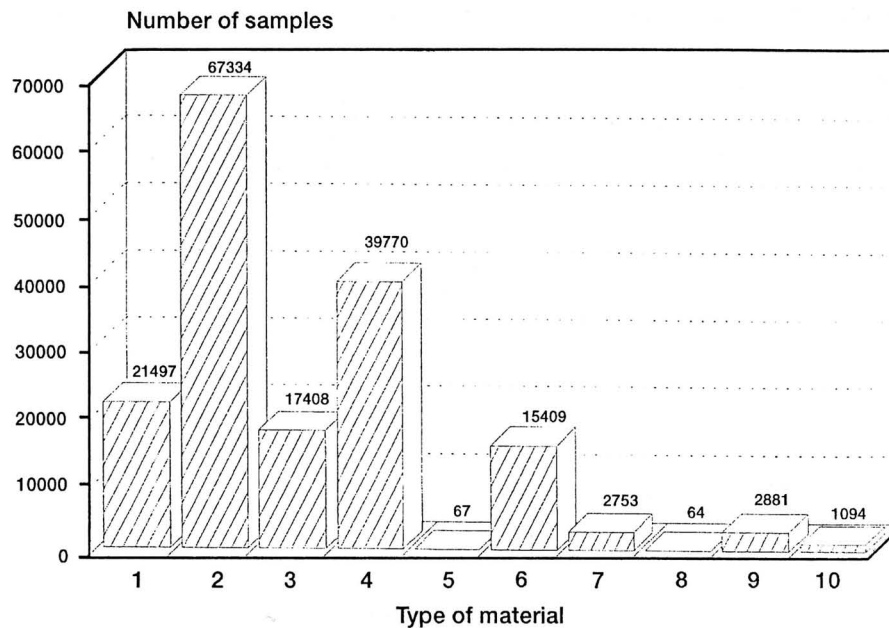
These priorities represent an important new area developed from the function of individuals and society in the fulfillment of goals established by the health policy:

- development and implementation of programs promoting health and prevention of disease (including vaccination strategies), based on the application of results from monitoring relationships between health and environment,
- epidemiology of selected chronic non-infectious and metabolic diseases and epidemiology of long-term effects of infectious diseases,
- participation in prevention of drug dependency and intoxication,
- nutritional epidemiology,
- participation in graduate and postgraduate education in public health fields,
- communication with the public about health protection and promotion,
- preparation of materials for development and evaluation of the National Health Program.

### 3. Central and Coordinating Functions of the Institute

Institute:

- serves as the main scientific base for the Ministry of Health in the public health field. Research is an integral component of its activities and serves as a prerequisite for high quality of its reference, expert, and accreditative functions,
  - directs or coordinates permanent or ad hoc national investigations, inquiries, and reports in areas of epidemiology, nutrition, and occurrence of important health-related risk factors. Subsequently analyses the data with respect to public health,
  - directs and participates in monitoring of environment in relation to the health status of the population. The results serve as a basis for formulation of rational and effective public health and ecological policies on both governmental and industrial level,
  - serves as a national reference center for data collection in the areas of public health and medical microbiology. (Fig. 1).
  - will serve as a center of postgraduate education in public health fields. This function will be carried out in conjunction with the 3rd Medical Faculty at Charles University in Prague and other universities and ministries,
  - functions as an external accreditation center within the Czech Institute for Accreditation,
  - coordinates those international activities in the area of public health, where the partner is the state,
  - studies the effectivity of safeguards adopted for protection and promotion of health,
  - functions as a central informational database for other public health organizations and for the Ministry of Health.
- The following areas are necessary to support the protection and promotion of health as seen above:
- scientific, research and educational activities, and international cooperation therein,
  - field surveillance of health status of the population in collaboration with health-related and other organizations,
  - expert function for health-related and other organizations,
  - development and maintenance of QA/QC systems,
  - implementation of new scientific information systems and their linkage to other international networks,
  - communication with professional and general population (Table 1),
  - inclusion of the Institute in the system of graduate and postgraduate education,
  - application of modern methods of management.



**Fig. 1.** Activities of the national reference laboratories of the institute in 1994. The Institute contains 50 National Reference Laboratories. The types of tests and examinations are denoted by numbers:  
 1 – blood and blood-derived products, 2 – blood sera, 3 – other biological materials, 4 – microbiological strains, 5 – physiological indicators, 6 – health safety of products, 7 – environmental samples, 8 – cosmetics, 9 – goods of everyday use, 10 – chemicals.

The Institute is the analogue of Central health institutions with similar roles in other developed countries (e. g. Germany, The Netherlands, Finland, France, Austria, USA, etc.). The ambition for the Institute is to fully develop all functions characteristic of such institutions.

## COLLABORATIONS

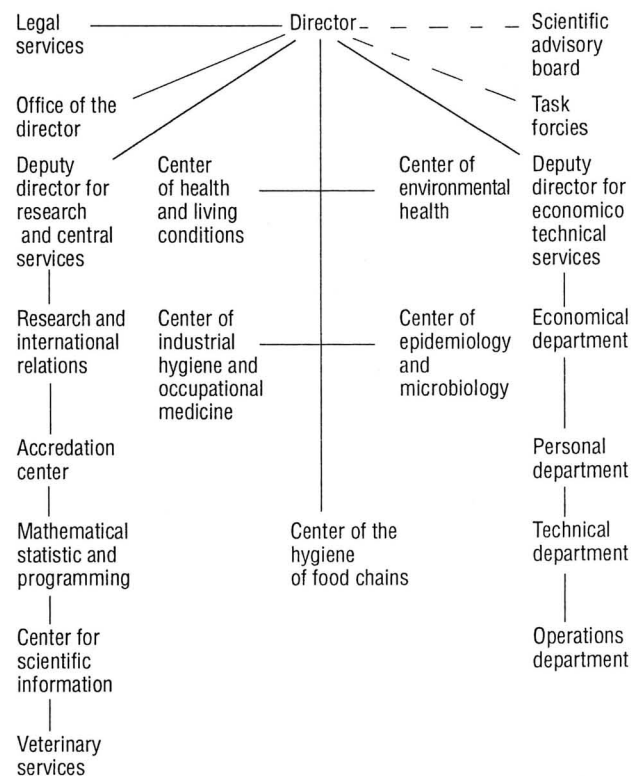
The Institute collaborates with all public health institutions in the Czech Republic during integration of tasks of nationwide importance and also in matters of routine expert function. The Institute also collaborates with universities, research institutions, and health care facilities. Finally, contacts with non-governmental organizations active in public health are gaining on importance.

The Institute maintains a broad spectrum of collaborations with international organizations and institutions in the field of public health. It participates in research projects and professional societies, and guarantees specific activities (WHO Collaborating Centers). In 1993, these included 18 international projects and five Collaborating Centers.

## ORGANIZATION AND STRUCTURE

The Institute is an organizational and functional unit supporting and promoting health. It consists of research centers and support departments. There are five research centers (Fig. 2):

- Center of Epidemiology and Microbiology
- Center of Health and Living Conditions
- Center of Environmental Health
- Center of Industrial Hygiene and Occupational Health
- Center for the Hygiene of Food Chains



**Fig. 2.** Organizational chart.

The support departments (scientific and technical information, mathematical statistics and programming, veterinary services) provide services to all five research centers.

Received July 11, 1995