

National Institute of
Public Health



Annual Report

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Winter view of the National Institute of Public Health

Note:

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1. POSITION AND TASKS OF THE NATIONAL INSTITUTE OF PUBLIC HEALTH IN PUBLIC HEALTH PROTECTION AND PROMOTION, INTERANTIONAL COOPERATION



*Director of the Institute: Jaroslav Volf, MD, PhD
Working team: 592 members (total calculated for 2006)*

Based on Act No. 258/2000 on public health protection, Article 86, as last amended, the National Institute of Public Health (NIPH) was established as a public health facility. NIPH is a contributory organization of the Ministry of Health of the Czech Republic. This legal decision entered into force as of January 1, 2003 and started a new era of the history of the Institute that is engaged in health protection and promotion. Despite various organizational and ideational changes in the long-term development of the Institute, the public health professionals continued their high-quality and purposive activities to the benefit of the population of the Czech Republic. Jaroslav Volf, MD, PhD has been the director of the Institute since January 1, 2003.

One of the important missions of NIPH is the preparation of background information for national health policies. In 2006, the NIPH professionals were involved not only in traditional cooperation with the Ministry of Health of the Czech Republic on the preparation of national legislation but also, in a substantially enlarged number of 19, in the creation of specific regulations of the European Union (EU) of relevance to health protection and promotion. In many cases, they were able to make changes to the wording of the binding EU regulations, e.g. those directly related to public health and other regulations in force in the Czech Republic. Nevertheless, the experience gained by the NIPH professionals shows that further lessons are to be learned from the older EU member states to make our diplomacy more effective in asserting our positions to the benefit of the Czech population.

NIPH was established for the purposes of health protection and promotion. To meet these goals, NIPH provides methodical guidance and reference services. It hosts a number of reference centres and reference laboratories providing laboratory and evaluating activities related to health promotion. In 2006, some NIPH reference laboratories were granted the status of the National Reference Laboratory as reflected in EU regulations, others, due to their nature, remain the methodical basis for public health services provided independently by the EU member states. Although the mentioned steps seem to have made the system somewhat chaotic, the long-term tradition of reference activities in the field of public health protection can be relied upon and the expected changes signalled by the developments in EU legislation thus do not pose a direct risk of the absence of expert knowledge in the entrusted area of public health protection.

A part of NIPH activities of increasing importance is the monitoring of and research into relations between health and living conditions. After the political changes in 1989, a great challenge for these activities was the organization of long-term monitoring programmes that even in 2006 brought about a wide range

of interesting results in various fields, from epidemiology to e.g. environmental impact detection. The results generated in cooperation with other public health institutes and regional public health stations are invaluable for the preparation of the science-based legislation regulating various areas of our life. Increasing is also the proportion of activities aimed at the submission of different public health data to WHO and EU. The monitoring is therefore an inseparable part of NIPH activities.

Research is the background of NIPH activities, although the administrative load to all NIPH professionals is always increasing. Positive is the fact that NIPH has been involved in a wide range of international research projects. In the field of health protection and promotion where the research projects are often costly, the emphasis on sharing the knowledge with other research teams seems to be very reasonable. It makes it possible for NIPH to use the most advanced technologies that are not available in the Czech Republic as well as the know-how generated by a definitely higher number of experts than that available at NIPH or even in the whole Czech Republic. The Institute made every effort to interest young professionals and to increase the number of publications in high impact journals. Other efforts were also relevant. Apart from publications in professional journals, the outputs of research projects addressing the general public also play a crucial role for NIPH. In this regard, the results of research were integrated into the contents of documents published in the editorial series intended for the general public (e.g. leaflets, booklets, posters, etc.). Compared to 2005, the number of international research projects with the participation of NIPH increased from 57 to 69 in 2006. An interesting project conducted under DG SANCO and directed by the LÖGD in Bielefeld is the Public Health Genomics European Network (PHGEN) (<http://www.phgen.nrw.de>). NIPH has been involved in this project as one of the partners and we expect from the generated network a better international and national coordination of genetic research and services with public health protection. The main directions in NIPH research activities can be summarized as follows:

- monitoring of characteristics and diversity of causative agents of infectious diseases and epidemiological analysis of their incidence,
- psychosocial determinants of health, consumer health protection and promotion,
- health risks from occupational exposure,
- environmental health risks,
- food safety and applied nutrition.

The NIPH activities aimed at the GLP quality control are a direct response to increasing market openness, making it possible for a wide range of services related to health protection and promotion to be provided by the private sector. Based on the decision of the Minister of Health, the NIPH statutes were changed at the beginning of 2006. As a result, the NIPH commitments in the field of health care quality were cancelled, with the exception of the public health protection quality control, which has remained within the scope of NIPH activities. NIPH continued to provide training in health risk assessment to extramural professionals. Authorization and accreditation activities were integral part of the services provided by NIPH.

The Institute has been extensively involved in pregraduate and postgraduate training of both health care and non-health care professionals, as expected in view of its mission. The major part of accreditation of various programmes for postgraduate training and health education of the general public was finished.

Consequently, many NIPH professionals are being addressed by the mass media to comment on various issues related to health protection and promotion.

The NIPH research activities in 2006 remained in line with the long-term strategy of public health protection in the Czech Republic. A wide range of activities within the international cooperation, in particular with the EU member states, has become stabilized. At the national level, the NIPH cooperation with the Ministry of Health, regional public health authorities and public health institutes continued and was focused on the creation of national capacities for the purposes of public health protection. In 2006, further investment mainly in the field of protection against infections was made. A BL3 laboratory and new rooms for the National Reference Laboratory for Syphilis were finished. A personnel audit was conducted, resulting in a significant number of redundancies, which was by about 10 % as high as initially expected. This downsizing has had a positive effect on the age distribution of NIPH employees and their mean pays. In line with the NIPH position and legislative framework, the systemization of working posts and positions was revised. Many employees met the criteria for classification into health care professionals as required by the new regulations in force. Further efforts will be made to improve the conditions for research and specialized activities in the future.

International cooperation

The involvement in international cooperation was a substantial and also increasing part of NIPH activities in 2006 as well. In addition to the traditional cooperation with the important international organizations (e.g. that of three WHO Collaborating Centres and of the contact points in various issues) providing a valuable background to the NIPH professionals, direct contacts were also developed within various working groups of the European Commission and international expert teams participating in the projects funded by various EU sources or within bilateral relations.

In 2006, within the international cooperation, NIPH was involved in 69 international projects, 16 of which were successfully completed. At the same time, cooperation started in 18 new international projects, which are at different stages of the preparation and approval procedure. The following table summarizes the international projects with the participation of NIPH in 2006:

Project type	No. of projects		
	Underway	Newly started	Total
EU 6 th FP and EC/DG programmes	23	7	30
Public Health Programme/DG SANCO	15	7	22
WHO	5	2	7
Other international programmes	8	2	10
Total	51	18	69

International cooperation provides opportunity not only for establishing working relations between specialists but also creates prerequisites for long-term exchanges between members of research teams. In 2006, NIPH received 11 fellows from other countries on a long-term basis. In this regard, further steps are to be taken. For comparison, in the same year, NIPH provided training to 340 fellows from the Czech Republic which is illustrative of the important position of NIPH in the field of continuing public health education. NIPH has been involved

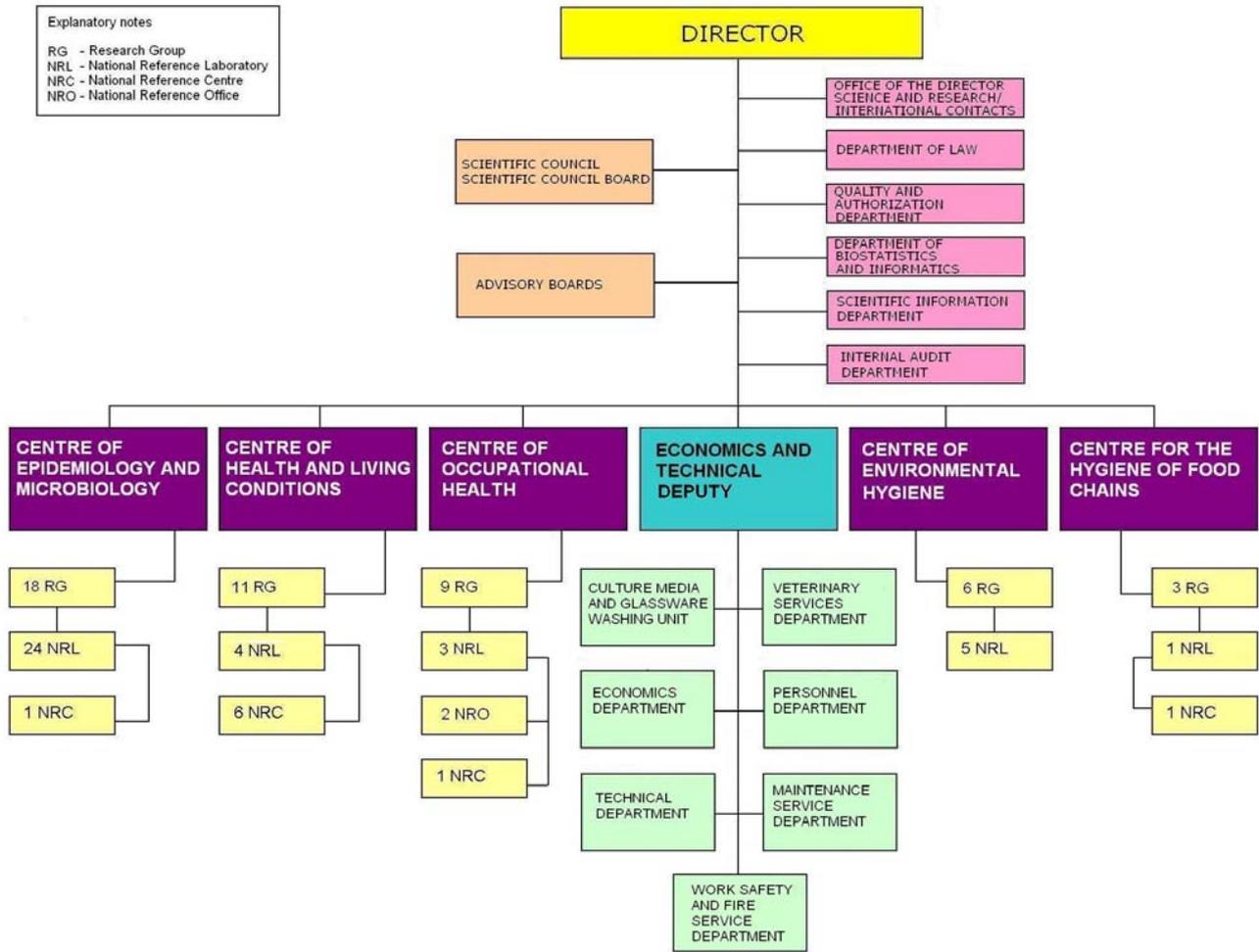
in cooperation with a number of international organizations. In 2006, NIPH was among others a member of the following organizations:

Organization name
ISBM - International Society of Behavioural Medicine
EuroHealthNet
IUHP - International Union for Health Promotion
Network of WHO Supranational Reference Laboratories/ IUTLD - International Union against Tuberculosis & Lung Diseases
EBRCN – European Biological Resource Centres Network
ECCO - European Culture Collection Organization
WFCC – World Federation for Culture Collections
ENWHP - European Network for Workplace Health Promotion

In 2006, NIPH was a founder member of IANPHI (International Association of National Public Health Institutes, <http://www.ianphi.org>). The NIPH directorate closely cooperated with KTL in Helsinki in the Health in All Policies programme to prepare the Finnish EU presidency. Apart from Europe, NIPH also cooperated with institutions in other countries, e.g. with Taiwanese public health protection organizations (Taiwan CDC). A joint conference on the needs for health care in the 21st century was subsequently held at the Institute for Postgraduate Medical Education in Prague and was highly appreciated by its participants.

2. ORGANIZATIONAL STRUCTURE OF THE NATIONAL INSTITUTE OF PUBLIC HEALTH

In 2006, some changes were made to the organizational structure of the Institute. The following organizational structure was in force by December 31, 2006:



3. ACTIVITIES OF THE CENTRES AND DEPARTMENTS

Over most of the year 2006 the National Institute of Public health was divided organizationally into 5 professional centres, 2 professional departments and 2 technical centres. These workplaces were the backbone of the Institute's professional activities. Their work is detailed further.

3.1. Centre of Epidemiology and Microbiology



Head: Kamil Zitek, M.S.

Team: 144 members (total calculated for 2006)

1. Mission

The centre is involved in problems of the origin and spread of bacterial, viral and parasitic infections. Through the study of their pathogenesis it studies the agents of those infections and their spread in the human and animal populations. It works on tasks in epidemiology and microbiology including the effects of climate change on overall and specific mortality and the role of public health in the national program for reducing the impact of climate change in the Czech Republic.

2. Priorities

Among the program priorities of the Centre were the surveillance of invasive affections caused by meningococci, hemophili, type A streptococci, and pneumococci, including the application of molecular biology methods and the recommendation of vaccination. Within the spectrum of activities there was the surveillance of invasive staphylococcus infections, shigatoxigenic *E.coli* strains and other intestinal pathogens, including the application of molecular biology methods. An interesting priority was also work on the defining of the role of public health in the national program for reducing the impact of climate change in The Czech Republic. An important component in the program of activities of the Centre was also the study of the biology (namely antibiotics resistance, pathogenicity), taxonomy and epidemiology of the agents of nosocomial infections.

A. Preparation of background information for national health policy

Documentation serving the national health policy included a nationwide surveillance of invasive infections caused by meningococci, hemophili and type A streptococci: characterization of the etiological agents by classic as well as molecular biology methods, morbidity analysis, recommendations for vaccination strategies, follow-up of possible vaccine failures. On an on-going basis, the Centre provided epidemiological and microbiological data to international databases, including data on the characterization of etiological agents by classical as well as molecular biology methods, updated were the national programs of surveillance of invasive affections caused by meningococci and hemophili.

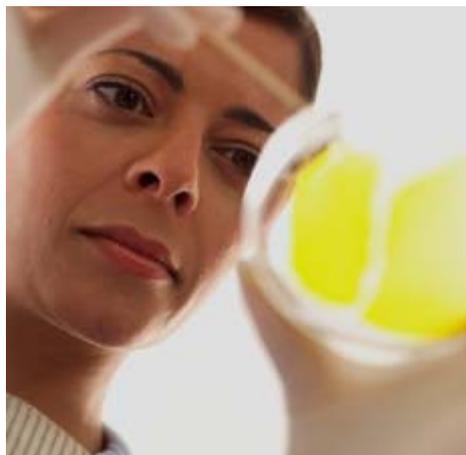
B. Methodical guidance and reference activities in health protection and promotion

Also in the year 2006 the centre served as a reference base for providing diagnostic methods that are not applied on a routine basis at laboratories in the field: e.g. MLST, *porA* and *FetA* sequenation, *emm* typing, antibody determination in human serum, PCR detection of agents in clinical material. Further, the Centre provided verifications of certain investigations carried out by laboratories in the field, e.g. identification of infectious agents, identification of serogroups and serotypes. Important was the verification of the quality of diagnostic products in the form of issuing expert opinions.

C. Monitoring of and research into relations between health and living conditions

The Centre worked on:

- the epidemiological, microbiological, clinical and ecological aspects of hantavirus infection prevalence (IGA);
- the strain identification of influenza viruses and non-influenza respiratory viruses isolated in the Czech Republic in collaboration with the NIMR WHO Influenza Centre in London in the testing of antigenic changes in circulating influenza viruses;
- the preparation of antigens for rapid diagnostics of influenza and non-influenza respiratory viruses;
 - the investigation of clinical and autopsy material under the diagnosis of acute respiratory infection (ARI) for healthcare facilities and the public health service (1079 samples examined), including the program “Quality upgrading of the virological surveillance of ARI”;
 - laboratory diagnostics of ARI with classical as well as accredited molecular biology methods including PCR and IF diagnostics of the SARS coronavirus, and PCR as well as serological diagnostics of avian subtypes of influenza H5, H6, H7, H9;
 - the identification of enteroviruses isolated in the Czech republic (collaboration with the WHO RRL for Enteroviruses in Helsinki in the testing of antigenic changes in the poliovirus strains isolated;
- the investigation of clinical material and samples of waste water for the presence of enteroviruses for healthcare facilities and the public health service (1 566 samples);
- the keeping of a collection of virus strains and type-specific sera (respiratory and intestinal viral agents).



D. Research activities

The Centre's research activities were focused at a number of topics of current interest. Projects and research were conducted at the national and international levels. Important international projects worked on at the Centre in 2006 were:

- EU project “EuroHIV HIV/AIDS Surveillance in Europe” Contract No. 2004203. Monitoring of the occurrence of AIDS in the Czech Republic,

the surveillance of HIV/AIDS in population groups at risk. The results were published in Report No.73 – Surveillance HIV/AIDS in Europe;

- Participation in EU project “EHR Europe HIV resistance” Contract No. EU-2006-518211, Study of the occurrence and spread of resistant variants of strain HIV-1 isolated in the Czech Republic. On-going results were published in the form of posters at conferences abroad held by the project coordinator (Medical Centre University Utrecht);
- There continued on-going work on the EU grant supported project ETHREAT;
- Participation in EU research concerning the influence of migration on the spread of HIV infection – EU project „AIDS and Mobility“.

Within the framework of the internal grant agency of the ministry of health of the Czech Republic (IGA), the following important projects have been worked on:

- Study of hyper-virulent complexes of *Neisseria meningitidis* by molecular biology methods, and options for the prevention of their occurrence in the Czech Republic through vaccination = IGA project (1A/8688-3);
- *Streptococcus pneumoniae*: studies in the genetic, microbiological and epidemiological characteristics of strains in relation to more precise diagnostics and vaccination = IGA project (NR/8770-3);
- Molecular determinants of *Streptococcus agalactiae* strains in relation to invasive affections = IGA project (NR/9432-3);
- In continuation of international activities, the IGA research project reg. No. NR 7843-3 “Monitoring of the occurrence and spread of HIV/AIDS in the Czech Republic” was worked on. It included the surveillance of the occurrence and spread of HIV-1/2 in selected population groups under great risk of HIV infection, genetic studies of mutants determining resistance of HIV to antivirals, and the sub-typing of HIV-1 strains circulating in the Czech Republic.

Other research activities included:

- prevention and diagnostics of diseases caused by influenza and non-influenza respiratory viruses and enteroviruses
- isolation, identification, antigenic and molecular biology characteristics of major agents of ARI
- follow-up of sensitivity to currently applied antivirals in the influenza strains isolated
- prevention and diagnostics of diseases caused by enteroviruses
- follow-up of antibody levels against polioviruses in children suffering immunodeficiency following OPV and IPV vaccination, and in patients with neurological affections or malignancies
- follow-up of antibody levels against coxsackie and ECHO viruses in patients suffering cardiological ailments and diabetes mellitus
- prevention and diagnostics of affections caused by hantaviruses from the point of view of epidemiology, microbiology, the clinical picture and ecology of infection.

E. Continuing education and training of professionals and the general public

The Centre’s staff has participated in a number of educational and instruction events of which the most important were:

- Consultations and practical training for workers of virology laboratories (on an on-going basis – tuition day + individual consultations), study sojourns for beginners, teaching of students (4 courses) and postgraduates (4 courses), lectures at seminars for the lay and professional public (43) and at conferences (5).
- The NRL AIDS staff held lectures within the framework of pre- and postgraduate education, participated in technical seminars and lectures, collaborated with the media in popular science and education of the public programs and publications.
- The NRL AIDS organized specialized training for the staff of laboratories conducting testing for HIV.
- Various lectures at professional seminars (12).
- Participation in the materialization of the nationwide program of prevention in STI/HIV called “Game-wise against AIDS”.

Overlooked should not be a number of consultations for and practical training of the staffs of Regional Public Health Administrations, Healthcare Institutes, clinical workplaces, the teaching of students and postgraduates, and other lecture and publication activities.

F. Other professional activities

In view of the size of the Centre, instead of a complete enumeration of its activities we name only the following:

- Preparation of samples and assessment of results for EQC organized by the NIPH;
- Assessment of the functional aptness of in vitro diagnostics;
- Participation in international laboratory quality assessment;
- Successful was the regular surveillance visit by the CAI following CSN EN ISO 15189 as well as the broadened audit following the amended CSN EN ISO/IEC 17025 in all three NRLs (NRL for Influenza, NRL for Non-influenza Respiratory Viruses, NRL for Enteroviruses);
- Diagnostic activities: 4652 samples investigated for healthcare facilities, 29 044 tests performed;
- International certificates obtained for the correct diagnostics of measles, rubella, mumps, parvovirus B19, Chlamydiae, EBV, HSV, VZV and CMV;
- Technical ensuring and complete methodological coordination of EQA – Bacteriological diagnostics;
- Sale of national type collection cultures and lyophilized cultures on request of customers;
- In the framework of collaboration with NGOs, the staff of research group 070 – NRL AIDS, conducted anonymous testing for HIV in clients of *Home of Light* and organizations working with drug addicts (“K Centres”, etc.) and commercial sex workers (“R-R”, the project “Chance”, etc.);
- The workplace of the manager of the national program for AIDS functions as the UNAIDS Focal Point – Czech Republic.



More information can be found on <http://www.szu.cz/cem/>.

3.2. Centre of Health and Living Conditions



Head: Assoc. Prof. Vladimír Kebza, M.A., Ph.D.

Team: 78 members (total calculated for 2006)

1. Mission

The Center is involved in methodological, research, educational, reference, expert opinion, tutorial and consultation activities in the area of health protection and promotion for the Ministry of Health, facilities of public health protection and promotion, public health institutes and other bodies in the field of health protection and promotion. In its research activities the Center participates in tasks worked on in national (IGA, GA CR, GA AV CR) and international projects, as well as in the materialization of intervention projects of health promotion in the framework of the National Health Policy of the Czech Republic. Educational activities are carried out by participation in undergraduate courses (namely the Charles University 3rd Faculty of Medicine and the Faculty of Philosophy), as well as in the guiding of projects of postgraduate studies through teachers from the Center and by the providing of accredited training courses and seminars. Expert activities are focused on expert opinions in the form of contracted services, as well as expert opinions provided under legislative law.

2. Priorities

The program activities of the Centre were focused on two basic areas: the protection and promotion of health including the protection of the health of the customer in three major thematic areas: in the area of psycho-social and behavioral determinants of health, in the area of developing biological methods for the assessment of local toxicity and the potential of sensitization in cosmetics products, materials and products intended for contact with foodstuffs and products of common use and in the area of the development and optimization of analytical methods for the determination of levels of chemical substances and microorganisms regulated by EU legislation for foodstuffs, products of common use and the environment with the aim of their introduction in laboratory practice including the monitoring of potential health risks.

A. Preparation of background information for national health policy

In the year 2006 the staff of the CHLC participated in the incorporation of new EU directives into Czech regulations, continued in the collaboration with the Ministry of Agriculture on the Foodstuffs Act, harmonization of Czech regulations with those of the EU, and the introduction of new EU rulings. There have been elaborated 437 paid expert opinions serving as documentation for approval procedures, and 67 professional opinions for the Ministry of Health. The staff has participated in the continuing actions in the harmonization of the legislation: in the Working Group for Microbiological Criteria of Foodstuffs DG SANCO – Biological Risk as regards the EU Ruling No. 2073/2005 *on microbiological criteria for foodstuffs*; in actions of the Working Group for Optimum Preservation of Cosmetics Products based on microbiological criteria of the Council of Europe Committee for Cosmetics Products; and in collaboration with the Society for Hospital Hygiene there took place the preparation of standards for testing for microorganisms in the environment of healthcare facilities.

In normative activities the Centre participated in the development and validation of reference methods for testing dermatotoxicity and immunotoxicity in selected products of common usage and their raw materials (cosmetics products, products for children under 3 years), healthcare products and other dermatotropic materials. As experts they processed in organs and working groups of CEN, ISO, ECVAM, the EC and Council of Europe, documentation for the creation of respective EU legislation and its implementation into Czech regulations, and worked on the creation of ISO and CSN EN norms, EC instructions and recommendations as well as branch norms in the area of cosmetics products.

The Centre also participated in the preparation of an amendment of Decree 158/2004 Dig. (in which there have been set the maximum permitted levels of individual pesticides in foodstuffs and foodstuff raw materials).

The Centre has participated in activities in connection with the harmonization of Czech legislation with that of the EU in the field of safety of food contact materials, toys and products intended for children under 3 years – bill of decree No. 207/2006 Dig. amending decree No. 38/2001 Dig. There have been processed 28 pieces of documentation, reports and presentations for the needs of negotiation of the Administration of the Czech Republic and branch ministries with the EU Commission or its representatives in the area of public health protection in connection with food contact products or toys and products intended for children under 3 years old.

Within the framework of work on the EU project “Closing the Gap” there have been prepared, discussed and approved principles of the national strategic initiative of the Czech Republic in the area of inequalities in health. In the area of school education policy we have introduced the principles of health promotion at school and the discipline *Education towards health* into the concept and structure of the new curriculum (the framework educational program has been incorporated in the Act on Education). As the coordinating workplace of the WHO CINDI program in the Czech Republic we have focused on the preparation of The European Strategy for the Prevention and Control of Non-communicable Diseases. We have also participated in the fulfilling of the National Strategy of Preventing Child Accidents, the National Strategy of Bicycle Traffic Development, and the National Strategy of Street Traffic Safety.

B. Methodical guidance and reference activities in health protection and promotion

In the year 2006 there continued the introduction of international methods of microbiological investigation of foodstuffs into the CSN system in the form of collaboration with CNI and participation at a parallel meeting of ISO TC 34/SC9 and CEN TC 275/WG 6 in Prague in the year 2006. For the 38th meeting of CCFH Codex Alimentarius there have been elaborated standpoints for the Czech Ministry of Agriculture as documentation for the overall position of the Czech Republic towards 11 CCFH documents concerning microbiological risk assessment. In the year 2006, the Centre has developed and introduced 21 new methodologies and prepared 11 documentations for announcing standards and recommended methods for the ensuring of state supervision by organs of public health protection and other state supervision organs (Czech Agriculture and Food Inspection under the Czech Trade Inspection, Customs Administration, Police of the Czech Republic) in the area of food contact materials and products, toys and products intended for children under 3 years of age.

In the area of selected products of common usage (cosmetics products, products for children under 3 years), healthcare products and other dermatropic materials, the staff of the Centre carried out technical and methodological guidance of public health protection organs in their routine and targeted state supervision, including supervision under the RAPEX system. They held lectures for the ongoing education of workers in the public health service, for NGOs and professional societies, and participated significantly in the creation of national information systems of the Ministry of Health for its providing of supervision.

In the year 2006, there have been elaborated 102 expert opinions in the framework of approval of plant protection products (30 newly registered agents, 25 minor alterations in the product's formulation, 45 cases of application spectrum broadened to new crops).

In the year 2006, in the framework of the Centre there has been named by the Czech Ministry of Health an NRL for Food Contact Materials and Products following the Decree of the European Parliament and Council No. 882/2004 *on the official control of foods and feeds*, that has been incorporated into the European Network of reference laboratories and collaboration with the Reference laboratory of the EU at the Joint Research Centre, Ispra, Italy. There have been materialized 26 consultations for public health protection organs, 5 seminars and 6 conferences.

Workers of the centre of Health and Living Conditions also elaborated complex expert opinions on the safety to health of building materials (in the form of paid expert opinions of the type "Contract for expert and laboratory testing, Ex",



provided by authorized persons (AP) as well as through framework contracts between APs and the NIPH, see contracts with the Building Technical and Testing Institute, Czech Building Institute), which serve as mandatory documentation for APs and Certification Organs in the Czech Republic for the issuing of Certificates (in line with Annex No. 1 to Government Decree No. 163/2002 Dig., item 3 – Hygiene, protection of health and the living environment). Further, they conducted measurements of noxae in non-occupational environments and on an ongoing basis collaborated with the Czech Trade Inspection in the assessment of the safety to health of certain products.

In 2006, the Centre also elaborated two innovated manuals for the prevention program of health promotion in kindergartens and elementary schools (see publications of the CHLC 2006).

Activities of the centre were likewise focused on the deepening of the methodology of preparing, forming and determining criteria for the assessment of health promotion programs materialized in the framework of the funding program of the National Health program – Health promotion program from the year 2000 to 2006. We have held 6 seminars aimed at postgraduate education towards health, methodology of communal and group prevention of non-communicable diseases, 3 seminars for teachers in the program *Smoking and Me* and three times the tutorial *Day of Health* in Prague. Professional activities were extended by a share in the preparation of documentation for improving population health program *Health 21*, documentation for the forming and

materialization of a health policy, methodological and reference activities in the sector of public health protection, participation in 4 EU communal projects in the area of health promotion (EU project Healthy Ageing, Capacity Building for Better Health, European project Getting Evidence into Practice, and the project Determine).

Intervention activities in the area of promotion of and education towards a healthier lifestyle were focused foremost at the nationwide publicity of the major objectives and priorities in the area of nutrition and physical activity as defined in the Government's program *Health 21* and as announced by the Chief Public Health officer for the year 2006 (5 health promotion projects). We have participated in the creation and publicity of Nutrition Recommendations for the Population of the Czech Republic, created an interactive web site for influencing lifestyle risks. In the area of education towards health we have prepared and published 15 titles of health education publications, posters and video programs, and provided consultation services in the sector of public health promotion and protection.

C. Monitoring of and research into relations between health and living conditions

Workers of the CHLC materialized the study *Health and Harmful Habits* focused on the development of smoking in the Czech adult population and smokers' attitudes towards the problems of smoking and the hazardous behavior in relation to alcohol. There has been finalized the three-year EU project *European Alcohol Policy: Bridging the Gap* aimed at the problems of strategies to decrease alcohol consumption. There has been finished the second phase of the EU project *Health Professionals and Smoking Cessation in a Larger Europe* dealing with the role played by health professionals in reducing the prevalence of the smoking habit. There has been materialized the health promotion program *Stop and Win* supporting the decision of smokers to quit the habit. In all 14 administrative regions of the Czech Republic we have put into effect the planned steps of decentralizing the nationwide coordination of health promotion in schools at the regional level (task *Health 21*, 13.4).

The Centre elaborated cross-sectional information on the targeted addition of microorganisms to foodstuffs, on the risk posed by *Enterobacter sakazakii* in infant and baby foods.

In the year 2006, the Centre has introduced new analytical procedures in the framework of state health supervision – preservatives in infant flat soothers for the massage of teething gums, pesticides in fish muscle tissue, nonyl phenols in food contact plastic foils. In the framework of state supervision there have been carried out 300 interventions, namely in the area of indoor ambient air analysis and that of items of common usage; in the framework of other services another 62 interventions. There have been carried out 617 analyses altogether.

In the year 2006, there have also been processed data regarding the specific situation in inequality in health in the Czech Republic; the results were presented at two conferences abroad.

D. Research activities

Workers of the CHLC materialized the international WHO/CDC study *Global Health Professionals Survey* focused on the smoking habit in future health

professionals (students in the 3rd year of University studies) and their attitude toward the habit. Further, there has been materialized the international WHO/CDC *Global Youth Tobacco Survey* aimed at those same problems in the 13- to 15-year age group. There has been finalized the 3-year IGA Ministry of Health project “Analysis of the share played by smoking in morbidity and mortality in the Czech Republic in the year 2002 and the quantification of economic costs for treating diseases caused by smoking”.

The Centre has also worked on and successfully defended the Ministry of Agriculture grant supported project 1B44040 “Modeling of and experimental research in the thermo-inactivation, baro-inactivation and growth of selected microorganisms”.

In 2006, workers of the CHLC were co-researchers in two EC grant supported projects within FP 6 and one project of the Ministry of Industry and Trade. Research projects that are continuing in 2007 apply new alternative toxicological methods in cell and organ cultures in the detection of local tolerance and assessment of the benefit of active substances that are components of products of common usage, with the objective of health promotion and consumer protection. Results of that research were published in impacted journals.

Data on the level and structure of well-being in the Czech population, on psychic health promotion in the Czech adult population and on the types of behavior, types of personalities and their relation to health have been processed and published in IF journals and at domestic conferences and abroad. There have also been published results in an IF journal, results of a study on the quality of life in patients with implanted cardiostimulators, materialized in collaboration with the Cardiological Centre at the Kralovske Vinohrady University Hospital. The monograph in Czech by V. Kebza, *Psychosocial Determinants of Health* (Prague, Academia 2005, ISBN 80-200-1307-5) was awarded the Charles University Rector’s Prize for the best scientific publication of the year in the area of pedagogical and psychological sciences. Furthermore, with the aid of the European HBSC questionnaire there has been conducted a research comparison of the behavior of school children between a group from a randomized Czech population and a respective group from health promotion schools in the Czech Republic, and an evaluation of the results of the newly introduced decentralization in coordinating health promotion in schools at the regional level and their institutions, with the objective of their extension over a broader population of children and adolescents (WHO guidelines). Results of those surveys were published at conferences abroad. Further, there have been updated and extended original manuals containing the national model of the WHO European program *Health Promoting School*, according to which the Ministry of Education as well as elementary schools form their own school program; and new editions of the *Curriculum of Health Promotion in Kindergartens* and the *Program of Health Promotion in Schools* were published by the Portál Publishers in 2006. In connection with those tasks, in 2006, the Centre worked on 2 GA CR grant-supported projects, 3 European projects; one GA CR grant-supported project (4111-22) was finalized. Grant support from the GA AV CR has been obtained for the project *Comparative Analysis of Concepts of Psychic Endurance* to be worked on January 1, 2007, through December 31, 2009.

E. Continuing education and training of professionals and the general public

In the year 2006 workers of the CHLC materialized 4 cycles of lectures intended for foodstuff producers in collaboration with the Institute of Professional Training at the Ministry of Agriculture. In the first module in 2006, there has been initiated the course “Consultation services and early intervention in the area of habit-forming behavior” accredited by the Ministry of Agriculture.

For the professional public the Centre conducted lectures on the new European legislation and its application in the Czech Republic, on the development of problems of the so-called uncertainty of measuring in the microbiology of foodstuffs, on the estimation of exposure to biological agents in the living environment, on the microbial quality of ambient air in the hospital environment, on bacteria, moulds and mites in the indoor environment of buildings, etc.

There has also continued collaboration with consumer protection organizations (D-Test, Society for the Protection of Consumers – 8 technical articles, 9 reviews, including the testing of 32 products); there were held 28 lectures with the objective of better informing namely the lay public; there has also continued collaboration with the media, especially the public TV (*Black Sheep, Testings*, news, etc.).

In 2006 the Centre materialized six modules of an educational program for non-medical healthcare professions following Act No. 96/2004 Dig., under the name *Health Promotion*. We have processed and throughout the published through the media a ten-part series *Education Towards Health at School* in support of the tuition of pedagogues in a new training discipline (component of the *Framework Educational Program* being introduced, see Publications of the CHLC 2006).

The Centre has also held 2 seminars on the methodology of communal and group intervention in health promotion advisory bureaus, and participated in the preparation and publication of health educational material in the framework of editorial activities for the lay as well as professional public.

The three workers of the Centre are tutors in postgraduate doctors' studies and trained seven doctorands in 2006.

F. Other professional activities

In 2006, a number of posts were held by members of the Centre in national and international organs and societies, e.g. the post of director of the CINDI program in the Czech Republic, the post of vice-president of the Scientific Board for Foodstuffs, the post of National Coordinator of the program *Health Promotion School*, the post of national delegate for the Czech Republic in the framework of the European Health Psychology Society (EHPS), the post of president of the Advisory Board for Products of Common Use of the Chief Public Health Officer of the Czech Republic, the post of committee president of the Section of Health Psychology of the Czech-Moravian Psychology Society, the post of committee member and registered project opponent in the framework of the EC research FP 7, and the post of member of the Central Commission for the Protection of Animals against Cruelty at the Ministry of Health, all of whom in 2006 have participated in all actions of those institutions in the Czech Republic and abroad. The Centre is also the seat of CZECOPA – the Czech platform for alternative methods to animal experimentation.

The Centre has also participated in activities of the European Parliament and Council on maximum residue levels of pesticides in products of plant and animal

origin, provided processing of material for the Permanent Committee for the Food Chain and Animal Health, the processing of material for the EPCO Expert Meeting, and participated regularly in talks of the EC working groups.

Workers of the centre also provided representation of the Czech Republic including the preparation of material for talks in the following working groups (WG): Working Group of the Committee of the European Council for Food Safety (Section FCM), WGs of the European Commission: Working group on Food contact Materials and Articles of the European Commission, Working Group on Safety of Toys of the European Commission (Chemical Risk), Working Group on Risk Assessment for RAPEX. As regards early warning systems, the centre is the branch contact point of the Ministry of Agriculture for RAPEX (following EU directive 2001/95EC, risk assessment in products of common use). From the National Contact Point the Centre received and processed 1018 e-mail items in 2006, of which 68 were reports processed for public health protection organs.

In collaboration with the Czech Normalization Institute the Centre participated in the activities of CEN/BT WG 176 "Construction products: Assessment of release of dangerous substances" in the framework of the EU in the elaboration of legislative norms.

The Centre is also a second contact point of the Ministry of Agriculture for the RASFF system. There have been received 198 notifications from the National Contact Point, of which 7 were in the area of products of common use, for the organs of public health protection. For 8 Czech notifications on products of common use there have been made health risk assessments and documentation elaborated for reports. On the basis of notifications from the RASFF system there have been processed 12 methodological instructions for the Ministry of Agriculture in the framework of declaring extraordinary state health supervision.

At the Centre there has been established a contact point for the approval of substances not listed in EU legislation, concerning materials and food contact products, and for communication with the European Food Safety Administration in the area of FCM. The CHLC Laboratory for Chemical Analyses conformed very well in the ring tests conducted in 2006.

The staff of the CHLC carried out paid expert assessments amounting to around 10 450 000 CZK.

More information on the activities of the centre can be found at <http://www.szu.cz/czpz/>.

3.3. Centre of Environmental Hygiene



Head: Růžena Kubínová, M.D.

Team: 62 members (total calculated for 2006)

1. Mission

The Centre of Environmental Hygiene is involved in problems of the influence of the environment on human health. It studies the magnitude of exposure to noxae and environmental factors, and identifies potential health risks to the population stemming from such exposure. There are also assessed new procedures and technologies from the point of view of their effects on health, e.g. drinking water treatment, materials intended for contact with drinking water, the rendering of waste water treatment sludges, hazardous waste management, etc. There are being elaborated new methodologies for determining noxae in the environment and the extent of harm to the human organism due to them. Since 1994, there is being kept a data base on the quality of factors under follow-up and of levels of contaminants in the organism, which are being regularly processed and evaluated statistically. Permanent components in the activities of the Centre are expert opinions as well as methodological and postgraduate training not only in the framework of the public health service of the Czech Republic. For the Ministry of Health there is being processed documentation for the new legislation and methodological instructions.

2. Priorities

Among the major program priorities of the Centre is the preparation of the transposition of EU legislative regulations (e.g. the Bathing Water Directive), coordination of national goals to the Protocol on Water and Health, the adopting of new approaches to the providing of safe drinking water, the so-called plans for ensuring water quality following the WHO (participation in international and national research projects concerning this topic), as well as the elaboration of educational material and the training of the staffs of water works in the *Public Health Minimum for Water Works Personnel*. Further priorities were the deepening of knowledge on the effects of environmental pollution on health leading to the defining of health based requirements on the quality of the environment and to the assessment and management of health risks, more exact information on the load in the population. That includes activities connected with the materialization of the task *Monitoring the Environmental Impact on Population Health*, i.e. the evaluation of results obtained including health risks and the methodological guiding of public health service workplaces. In the framework of the task of waste management in the Czech Republic there has been prepared documentation for an amendment of the act on waste in the area of waste management in healthcare facilities and the executive decree on managing that waste. Another priority of the *Monitoring* system is biological monitoring – population exposure to and load of significant xenobiotics from the environment, including persisting chlorinated organic compounds, the follow-up of the population's saturation with selected elements and of its health in selected population groups, the processing and evaluation of data obtained in selective surveys, the presentation and publication of results. Through those activities expert groups participate in the preparation of technical documentation for decision making by the state organs, namely the Ministry of Health of the Czech Republic.

A. Preparation of background information for national health policy

In the course of 2006 the Centre participated in the preparation of the transposition of a new European directive on bathing water (2006/7/EU), namely in the form of processed and reviewed drafts to the amendment of the act on public health protection, as well as of the draft of the respective executive regulation, including negotiations with representatives of other departments (Ministry for the Environment, Ministry of Agriculture). On the basis of a long-term accreditation by the Ministry of Health, members of the centre represented the Czech republic in various organs of the European Commission (EC) and participated in its tasks, namely: a) Expert Group for Building Products Intended for Contact with Drinking Water; b) Commission for the Quality of Water Intended for Human Consumption; c) Commission for Bathing Water.

The Centre processed the annual national report on bathing water quality for the EC. On request from the Ministry of Health the Centre elaborated a special report for the professional as well as the lay public "Natural Bathing Waters in the Czech Republic in the seasons of 2004 and 2005". Members of the Centre coordinated the activities of the inter-branch working team for defining national goals regarding the international *Protocol on Water and Health* and represented the Czech Republic at negotiations on the *Protocol* abroad.

The Expert Group for Soil and Waste Hygiene was entrusted by the Ministry of Health to elaborate documentation for the fulfilling of the plan for waste management in the Czech Republic. In the framework of fulfilling common tasks with the Ministry for the Environment there has been elaborated in collaboration with regional administrations and the project working group for healthcare waste, a methodical instruction for the state administration for healthcare waste management.

In the year 2006 the processing of routine statistics data included the updating of data on the incidence of inborn developmental errors in children, the occurrence of the indicator being evaluated for the whole country; data were completed for the past four-year period, namely regarding the overall occurrence as well as that of selected types of inborn errors in live-born infants, and evaluated were their developmental trends.

Another assessed indicator was that of the mean life span. That has been elaborated for the whole country as well as at the regional level for each district. The updating of the indicator was based on mortality tables for the period 2001-2005. Furthermore, life expectancy has been compared with that in other countries of Europe (Eurostat) and newly there has been presented the indicator of life expectancy in health (that combines the mortality rate and the momentary prevalence rate), the source being the WHO database *Health for All*.

B. Methodical and guidance and reference activities in health protection and promotion

Within the framework of the Centre there function four national reference laboratories and centres. The predominant activities of the NRC for Drinking Water are the providing of expert standpoints, opinions and consultations on problems of hygiene and analytics of drinking and bathing water and products intended for contact with drinking water. In 2006 the number of written standpoints exceeded 150 (of which 49 were for the Ministry of Health and

Regional Public Health Authorities), the numbers of personal and over-the-phone consultations were in the thousands. The NRC conducted 11 different inter-laboratory comparison tests for public health and waterworks laboratories. The NRC has also elaborated four new methodical instructions and recommendations.

Professional activities included foremost the elaboration of expert standpoints, the evaluation of health risks, legislative activities, training, the providing of consultations and inter-branch collaboration in expert groups. In laboratory activities there can be named organizationally and technically demanding activities including the organization of programs of qualification testing, developing QA/QC procedures in the calibration laboratory for gasses, and the development and application of procedures for measuring suspended particles in the ambient and indoor air. Experts' reports included health risk assessment, expert opinions and a number of outdoor and indoor ambient air measurements, encompassing a rising number in homes and offices. For the Ministry of Health there have been materialized two expert reports and 5 opinions; and 51 expert reports and 4 opinions for the public health service.

The activities of the Laboratory for Water and Waste Hygiene have been focused in 2006 foremost on the assessment of technologies and products in the area of waste management, on the redevelopment of old ecological burdens, on the assessment of products based on enzymes and microorganisms as well as that of the safety to health in inorganic and organic fertilizers. The NRL assessed the hazardous properties of waste and was involved in waste from healthcare facilities. There have been elaborated 97 expert reports, 28 reports and opinions for healthcare facilities, 25 reports for the Ministry of Health and the public health service, and some 57 opinions in the area of waste, contaminated soil, technologies, GMO and fertilizers.



In 2006, the laboratory of the expert group for soil and waste hygiene obtained a certificate of accreditation. Laboratory activities were focused on microbiological analyses of soil, waste water treatment sludge and modified bio-waste, as well as on the eco-toxicological testing of building materials. In all, there have been analyzed 652 samples of products and environmental samples (sludge, soil).

In the year 2006, the NRL for Genetic Toxicology prepared microscopy preparations for inter-laboratory comparative tests. There took place an ongoing training of new workers of genetic toxicology laboratories in the form of week-long study sojourns at our workplace (3 trainees). There have been elaborated 19 expert opinions in the assessment of GMO health risks.

C. Monitoring of and research into relations between health and living conditions

Within the framework of project II of the Monitoring System there has begun a special two-year study focused on the detection of novel substances in drinking water (halo-acetic acids that are a component of disinfection by-products). The Centre collaborated throughout the year with the Ministry of Health on the draft, testing and reviewing of new adjustments in the Drinking Water Information System that serves as the basis for collecting and evaluating data on water quality in the Czech Republic.

The Expert Group for Ambient Air Hygiene oversees/ensures organizationally the monitoring of population health in relation to the quality of outdoor and indoor ambient air. In the year 2006 there have been evaluated results for the year 2005 (see results published in the NIPH web site: <http://www.szu.cz/chzp/ovzdusi/mzso/index.htm>) which, besides the standard exposure assessment, also present a characterization of the health risk in carcinogenic substances. The results are intended for public health facilities as well as the state administration.

There have continued activities connected with tackling problems concerning indoor ambient air. For the subsystem of monitoring population health there has been elaborated and in five of the Czech Republic launched a pilot study project concerning indoor environment quality in schools.

In the year 2006, there have also been processed results of the monitoring of soil in urban agglomerations over the year 2005. The results are also to be found at <http://www.szu.cz>.

Subsystem VIII *Health risks of the contamination of soil in urban agglomerations* in 2006 continued in Brno and the Karlovy Vary Region.

Within the framework of monitoring population health, subsystem V - *Health consequences of exposure of the human organism to toxic substances from the environment*, in four areas (Prague, Liberec, Zlín and Ostrava) there have been carried out samplings of urine in children (7 – 10 years old), namely 100 samples from each area, as well as of breast milk in primiparae. The biomarkers under follow-up are toxic metals (cadmium, lead, mercury), beneficial elements (selenium, zinc, copper), persisting chlorinated organic compounds, and the analysis of chromosomal aberrations by cytogenetic analysis of peripheral blood lymphocytes. All the analyses (except for PCBs) have been carried out in our laboratory. There took place samplings of PM₁₀ in the ambient air of Prague 10 and the monitoring of the bacterial mutagenicity of their extracts in connection with PAH analyses.

In the course of 2006 there has been evaluated Phase II of the HELEN Study (2004 and 2005) determining the relations between health, lifestyle and the environment (a comparison of both phases will take place in 2007). There have been held negotiations on amending subsystem II – *Health consequences and disturbing effects of noise*. The Monitoring Board has approved changes in the organization of the project. In 2007, the technical part shall be taken over by the NRL for Noise (head: ing. T. Helmuth, Public Health Institute Ústí n/Orlicí). In 2006 there has been prepared a questionnaire survey “Noise and Health” that is to take place in the spring of 2007; the hitherto applied questionnaire has been modified following new pieces of knowledge on the influence of noise on health. The group has methodologically ensured the course of the questionnaire survey of allergic diseases in 18 cities of the Czech Republic in extension of studies in 1996 and 2001 in collaboration with the the Public Health Institutes and pediatricians.

D. Research activities

In 2006 the Centre began working on new research projects: the international project TECHNEAU (Technology enabled universal access to safe water) in the framework of the 6th Research Program (2006-2010), INTARESE (Integrated assessment of health risk of environmental stressors in Europe) – likewise in that

same framework, and Ministry of Education, Youth and Sports grant-supported national project in the framework of National Research Program II – *Risk identification, quantification and management in public drinking water supply systems* (2006-2010).

Further, the Centre is working on a subproject of the 3-year grant-supported project VaV-SM/9/86/05 - *Study on the origins of secondary particles from gaseous precursors and their share in the overall emissions burden*, the grant-supported subproject *Magnetic properties of particles of solid ambient air fall-out and their relation to environmental pollution*, and *Identification of emissions from combustion motors in the ambient air of Prague* (contractor: Environmental Department of the Capital City Prague magistrate) in collaboration with the Institute of Chemical Processes.

Research activities of the Centre have also been focused on the continuation of project FP6 – Horizontal – HYG, SSPI – CT – 2005 – 513660 *Horizontal Standards on Hygienic Microbiological Parameters for Implementation of EU Directives of Sludges, Soils and Treated Biowastes*.

The Centre is also conducting the IGA NR9015-3, 2006-8 grant-supported *Retrospective study of the concentration of indicator PCBs and selected chlorinated pesticides in the serum of the population in the Czech Republic over the period of 1970-1996*. The project objective is a retrospective follow-up of the levels of selected persistent organic pollutants (POPs) in combined serum samples from the Czech population taking into account age and gender in regions matching those where there is being conducted Subsystem V – Biological Monitoring. Furthermore, there are being followed up relations between serum levels of total lipids, cholesterol and triglycerides and concentrations of xenobiotics under follow-up.

Another project of the Centre is *Mercury and methylmercury in the hair of a selected population in the Czech Republic as an indicator of exposure to mercury*, supported by IGA grant NR8955-3/2006. The objective of the project is the elaboration and introduction of a simple method for determining mercury and methylmercury in the hair by AAS and its further application in the follow-up of temporal trends in selected population groups in the Czech Republic.

Another research activity of the Centre is the development of a coherent approach to human biomonitoring in Europe. Its objective is the harmonization of procedures of biological monitoring (selection of population groups; questionnaire survey; selection of matrixes and analytes, laboratory procedures, database; statistical processing of data and their interpretation) in the framework of EU member states and collaboration in the ESBIO project (Expert Team to Support Biomonitoring) in the framework of the 6th FP. Further, it is the public health impact of long-term, low-level mixed element exposure in susceptible population strata (PHIME); the Expert Group of Genetic Toxicology is one of around 30 partners in the international integrated project PHIME worked on in the framework of the 6th Framework Program of the EU. The project began March 1, 2006, and is planned for 5 years. It shall provide data on the exposure of populations under risk at usual and increased exposure loads from the environment. There shall be followed up levels of selected toxic metals (lead, cadmium, mercury) in the child population 7-10 years of age having different expected exposure loads (in the vicinity of great contamination sources, urban and rural children). There shall also be followed up elements connected with the traffic load (platinum, palladium, rhodium). The results will be compared with

those from other participating countries. The Centre is also participating in a study of heavy metal exposure in preschool children, including participation in a project aimed at determining concentrations of noxae in the environment of elementary schools. Still another research task of the Centre in the framework of the 6th FP is the assessment of the influence of long-term low-level exposure to chemical substances in the sensitive population. Within the framework of the EU the Centre is working on the ENHIS II project (Establishment of an Environmental Health Information System Supporting Policy). Other projects worked on are HAPIEE I – Determinants of the epidemiology of cardiovascular disease in central and eastern Europe) and HAPIEE II – Health disparities and ageing in societies in transition, concerning the quality of life in the ageing population.

E. Continuing education and training of professionals and the general public

On request of the Ministry of Health there has been elaborated a manual, *Public Health Minimum for the Waterworks Staff* as teaching material on the amendment of Decree No. 490/2000 Dig. In collaboration with the Centre for Further Instruction in Waterworks Economy, the staff of the Centre held the first training courses on this topic.

Within the framework of postgraduate studies the NRC for Drinking water held 2 seminars, 1 tuition day and 5 study visits for more than 200 persons; the Centre's staff delivered over 120 lectures at various seminars and conferences in the Czech Republic and abroad.

The Centre has its continually updated internet site for the professional and lay public. In the framework of public education activities there has also been published a leaflet on the drinking regime and kinds of bottled water.

In 2006, the staff of the Expert Group for Soil and Waste Hygiene participated in further instruction of workers in health care in the framework of the NIPH system, as well as in postgraduate studies in the branch of health care (IPP) and outside it. There have been held 2 tutorial days on problems of waste and public playgrounds and on the safety of sporting and child playgrounds; two courses concerning the assessment of hazardous properties of waste and the public health problems of waste management. Experts of the Centre participated in the training of diploma candidates and doctorands; lecture and teaching activities for secondary school and university graduates (Charles University 3rd Faculty of Medicine; National Centre of Nursing and Non-medical Healthcare Disciplines; Institute of Physicians and Pharmacists; Chemical Technologies Technical University), Finalization of diploma and doctors theses (3 in all).

The Centre presented methodologies and results of its activities at sojourns of students of Healthcare secondary Schools and medical students of the Charles University 3rd Faculty of Medicine.

F. Other professional activities

In the framework of expert assessments of the health safety of products and chemical agents intended for contact with drinking water there have been assessed 33 groups of products. The Centre's staff participated in work of the analytics commission of the Environment Ministry as well as in expert opinion activities for grant agencies. Experts from the group for genetic toxicology are

collaborating with the Institute of Hygiene and Preventive Medicine of the Faculty of Medicine in Hradec Králové in determining the mutagenicity of the urine of patients suffering psoriasis treated by the Goeckerman method.

More information about the Centre is to be found on:

<http://www.szu.cz/chzp/index.htm> .

3.4. Centre of Occupational Health



Head: Assoc. Prof. Pavel Urban, M.D., Ph.D.

Team: 80 members (total calculated for 2006)

1. Mission

The NIPH Centre of Occupational Health serves as a scientific research and expert base of the Ministry of Health and of the State Supervision in the area of health protection and promotion at work. The Centre is involved namely in the risk assessment of noxious chemical, physical as well as psychosocial factors of work and the working environment on human health and the options for protection against their action. The basis of the centre's activities is applied research focused on the systematic updating of scientific documentation and methods in the area of occupational medicine and hygiene. Research results are the basis of competent fulfilling of other tasks of the Centre, such as reference activities, expert assessments; authorization, methodological and educational activities; participation in the elaboration of legislation in the area of health protection at work, in the transposition of corresponding EU legislation and participation in the system of quality control. The Centre also has a share in the monitoring of population health, namely in relation to the working environment. The Centre is involved in the WHO network of collaborating centre in the area of occupational medicine.

2. Priorities

In the year 2006 the Centre's activities included a broad spectrum of activities ranging from complex laboratory analyses in the framework of reference, scientific research and expert assessments, continuing with the elaboration of commentaries, observations and providing information on various professionally demanding and specific problems concerning different areas of working and living environments, through to problems of the transposition of EU legislation in the area of Safety and Health Protection at Work (SHPW) into the legal system of the Czech Republic and its implementation in practice. Among the program priorities of the COH in 2006 was the preparation of changes that follow from the EP and EC directive No. 1907/2006/EU (the so-called REACH). The need to manage the increasing requirements connected with the problems of REACH has called for certain changes in the organizational structure of the Centre. The teams of experts involved in problems of chemical substances were grouped into two new expert groups – (a) for the assessment of exposure to chemical substances at the workplace, and (b) for chemical safety. Presently, the COH is divided into 7 expert groups.

A. Preparation of background information for national health policy

- The COH staff actively participated in the government Board for SHPW and its permanent committees.
- On the basis of a decision by the Ministry of health the COH was again entrusted in 2006 with elaborating expert opinions and documentation for the Ministry of Health and Regional Public Health Authorities in administrative proceedings regarding occupational diseases and in expert opinions on queries, complaints and appeals in the area of occupational

medical care and occupational diseases. There have been elaborated 45 expert opinions.

- Within the framework of consultation activities for the Ministry of Health there have been elaborated 148 written statements on various problems, and provided around 400 telephone or e-mail consultations.
- On request of the Ministry of Labor and Social Matters, a working group of COH experts elaborated expert documentation for the preparation of Government decree No. 567/2006 Dig., *on bonuses for work in difficult working environments*.
- There have been commented on drafts of amendments of Act No. 258/2000 Dig., *on public health protection* and Act No. 95/2004 Dig., *on medical professions*.
- There has been elaborated a legal opinion on the application of Act No. 411/2005 Dig., *on traffic on overland communications*, that has been published on the NIPH/COH web site.
- There have been evaluated many comments on the amendment of Decree No. 232/2004 Dig., through which there are put into effect certain regulations of the Act on chemical substances and chemical products concerning the classification, packaging and labeling of hazardous chemical substances and chemical products.

B. Methodical guidance and reference activities in health protection and promotion

Reference activities

On decision of the Ministry of health, in 2006, the National Reference Laboratory for Non-Ionizing Electro-Magnetic Fields and Radiation has been transferred



from the competence of the Public Health Service of the capital City Prague to the competence of the Centre of Occupational Health. Presently, in the framework of the COH there are functioning 8 reference laboratories and/or units. The staffs of those laboratories perform methodological and consultation activities for the Ministry of Health, other organs of the State Administration, public health protection organs, healthcare institutions, public health field physicians, physicians providing occupational medical care, employees as well as trade unions. The focal point of reference activities were foremost the assessment of profession-linked exposures to physical and chemical

factors, the elaboration of expert opinions on the public health problems of various technologies, the development of novel analytical methods and the carrying out of reference analyses.

Other methodological activities

- In collaboration with the Research Institute of Safety at Work there have been elaborated legal opinions and documentation for answering queries on the application of regulations concerning preventive care in plants/enterprises, health protection at work and public health protection.
- For the Registry of Chemical Substances of the Ministry of Health, in the framework of risk evaluations there has been assessed the quality of

documentation and elaborated a report on risk assessment following a given form in Czech and in English for 19 chemical substances and there has been evaluated documentation for 4 biocides.

- There have been elaborated 145 Safety Data Sheets
- In 2006, the COH Working Group for Exposure Limits negotiated a total of 9 cases of PEL/STEL. For 34 substances it assessed PEL and STEL values given in the Commission Directive 2006/15/EU. Furthermore, there have been assessed certain serious problems of exposure to mixtures of chemical substances (welding vapors, particulate matter, nitrosamines).
- There have been elaborated 67 health risk assessments from the point of view of occupational hygiene for handling GMOs.
- Within the framework of the Information Program for Toxicology and Environmental Health the COH staff elaborated documentation concerning the Czech Republic for the World Toxicology Library. In the near future that virtual library shall also be available to the Czech public.

C. Monitoring of and research in the relations of living conditions and health

- There continued collaboration of the Centre with the Monitoring of the Environmental Impact on Population Health. The centre is the guarantee of Subsystem VII – *Health risks of working conditions and their consequences*.
- The COH is involved in activities of the Categorization of Working Activities information system; the staff are members of the Board of the registry.
- There continued activities of the national Registry of Occupational Diseases. In collaboration with the Institute of Healthcare Information and Statistics there have been published Binding Instructions for Data Collection and there have been created electronic versions of forms for the needs of the Registry. The Registry is connected to the EUROSTAT system of European occupational diseases statistics (EODS).
- In the Register of Exposures to Chemical Carcinogens (REGEX), in 2006 there has been achieved a nationwide coverage. At the close of the year 2006 there have been registered 5 499 subjects on whom there are available 10 395 records.

D. Research activities

The topics of research projects worked on in 2006 were focused on the identification of factors endangering human health on profession-linked or environmental exposure, on the assessment of the severity of exposure to those factors, on the study of their biological effects, on the identification of the most vulnerable population groups and on the study of causes of the inter-individual variability of the response to each agent. Results of this research are applied in the updating of scientific documentation and methods for the quantitative evaluation of the health risk connected with profession-linked and environmental exposure. The results were published in professional journals and at domestic and international conferences – in all, more than 100 publications.

Grant-supported projects:

- In 2006 the COH worked on 17 projects supported by grants from domestic and foreign agencies. In the course of the year there have been successfully finalized 6 projects and there have been submitted 10 new applications for grants.

Institutional research:

- With the means of the COH there has been financed participation in two projects in the *WHO Collaborating Centres in Occupational Health Work Plan 2006-10*: 1) Diminishing of lung functions connected with varying degrees of profession-linked exposure to asbestos dust; and 2) The medico-legal profile of the Czech Republic – Indicators of exposure and health consequences.
- Preliminary results of the study on mercury concentrations in the brain of patients suffering Alzheimer-type dementia have been presented at the Congress of the European Federation of Neurological Societies (EFNS) in Glasgow where they were awarded 1st prize in the Poster section.
- In the year 2006 there continued the follow-up of the health of workers exposed to diisocyanates in polyurethane foam production. Results of those investigations will be applied in quantifying health risks connected with exposure to diisocyanates.

E. Further instruction of the professional and lay public

In the year 2006 the COH obtained accreditation from the Ministry of Health for carrying out the educational program for specialization in the discipline of Occupational Medicine, that being a highly prestigious assessment of the Centre's professional level. In the framework of the system of lifelong education of healthcare and non-healthcare staff the COH organized a number of educational events. Those events were all included in programs of lifelong medical studies guaranteed by the Czech Chamber of Medicine and gained approval for inclusion in the credit system of lifelong studies in non-medical healthcare workers. Among the most important educational events conducted by the COH in 2006 were the following:

- Organization of and active participation in the international colloquium *Incorporation of the quality of life as another dimension of the risk assessment process* in Prague;
- Organization of 5 tutorial days on average attended by 200-250 listeners;
- 21st Teisinger's Day of Industrial Toxicology;
- 30th Beno's Day of the Physiology and Psychology of Work;
- Organization of the section of industrial neurology at the 38th International Danube Symposium of Neurological Sciences in Brno;
- Certified course, *Assessment and Control of health Risks at the Workplace*;
- Innovation course in modern epidemiology;
- Innovation courses, *Hazardous Substances and Products*;
- Workplace Health Promotion seminars
- Arrangement of a one-year study sojourn for a student from the Chinese People's Republic;
- Numerous lectures on request in the framework of events held by the Institute of Postgraduate Studies in Health Care, the National Centre of Nursing and Non-medical Healthcare Professions, Charles University Faculties of medicine, Charles University Faculty of natural Sciences, Czech Agricultural University Faculty of Forestry and Environment, and other institutions, as well as consultations in students' diploma theses in preventive medicine;
- Educational material, e.g. abstracts of lectures delivered at educational events organized by the COH, being published at the COH web site. Other professional activities.

Providing health care

In the year 2006 the COH had a contract on providing health care in profession category 205 (tuberculosis and respiratory diseases) with the Branch Health Insurance Company of Bank, Insurance Company and Building Industry Employees, the Škoda Employee Insurance Co., the Coalfield Brethren Treasury, the Metal-Aliance Health Insurance Co., and the Czech National Health Insurance Co. In the framework of that profession category, there have been examined 128 persons and carried out 843 interventions, totaling 148 065 points. The COH Laboratory of Lung Functions has participated in 2006 in the ensuring of employee preventive care at two enterprises in the form of specialized examinations that are a component of preventive physical examinations (follow-up examinations in persons with previous job-linked exposure to asbestos; examination of workers with profession-linked exposure to diisocyanates). In June 2006, the COH has successfully passed a tender for providing health care in occupation medicine covered by public health insurance.

Expert opinions

In 2006 the COH elaborated around 220 expert opinions and arranged tests of rail vehicles. Activities in the area of health promotion at work:

- The COH staff arranged the running of the 2nd year of the competition *Health Promotion Enterprise of the Year* (2006). On the topic of workplace health promotion there have been provided around 50 consultations for Regional Public Health Administrations, Public Health Institutes and enterprises. On the NIPH/COH web site there has gone into operation the separate National Workplace Health Promotion Network web site.
- In January 2006, the Chief Public Health Officer of the Czech Republic established the National Contact Point of the European Workplace Health Promotion Network;
- A significant international activity in the area of health promotion was collaboration in the European project Dragonfly (2005-6) the objective of which was to map the situation in workplace health promotion in the new EU member and candidate countries;
- There has begun collaboration in the European project Move Europe (2006-2009) aimed at improving workplace health promotion oriented at a healthy life style.

More information on activities of the Centre is to be found at:

<http://www.szu.cz/chpnp/index.php> .

3.5. Centre for the Hygiene of Food Chains

Head: Assoc. Prof. Jiří Ruprich, MVM, PhD.

Team: 31 members (total calculated for 2006)



1. Mission

The major mission of the Centre are activities at the borderline between the areas of competence of the sectors of health and agriculture as well as other sectors. The focus of public health organizations on this area was recommend by WHO 30 years ago as an effective way to prevent health risks related to food and nutrition. In practice, activities of the Centre are aimed primarily at the issues of food safety and applied nutrition. Attention is paid in particular to dietary exposure to contaminants and health risk assessment. The results obtained provide important background information for national health policies and defence of scientifically grounded national interests during the preparation of EU legislation.

2. Priorities

The priority of the Centre was to cover all parts of the risk analysis system in the fields of food safety and applied nutrition. The part related to health risk assessment was carried out primarily within the research and monitoring activities of the Centre. The part related to health risk management was completed by processing applications for approval of novel foods (NF) and genetically modified organisms (GMO) and handling technical aspects of the EU Rapid Alert System for Food and Feed for public health protection authorities. In addition, the Centre was involved in providing background information for both national and EU legislation. In multiple instances, the Centre provided background information for decision making by national authorities, in particular the Ministry of Health of the Czech Republic, but sometimes also the Ministry of Agriculture of the Czech Republic. The part related to health risk communication was completed by lecturing at universities and for public health protection authorities, regular cooperation with mass media (commentaries published in daily press, interventions and interviews on the radio and TV) and endorsing outputs of the independent Scientific Committee for Foods fostered by the Centre. An important part of the communication was also the creation of the Centre's own web pages intended for both the professionals (team website for administration of RASFF, GMO and NF cases) and the general public (e.g. outputs of the Scientific Committee for Foods, dietary exposure monitoring results, food consumption in CR prior to accession to EU). The results of various activities can be characterized by area as follows:

A. Preparation of background information for national health policies

In 2006, the Centre participated in the preparation of background information for the amendment to the "Food safety strategies in CR after accession to EU" (Resolution No. 1277/2004 of the Government of CR), with the objective to outline the programme for the following two years. Furthermore, the Centre professionals were involved in the preparation of background data for the field of the regulation of food safety limits (e.g. preparation of and amendment to the EC regulation on contaminants) and in the preparation of the EC decision concerning NF and GMO.

B. Methodical guidance and reference activities in health protection and promotion

In 2006, the Centre also served as the reference point of the public health protection authorities for the Rapid Alert System for Food and Feed (RASFF). Over a year, the Centre received 951 reports, 228 of which were technically processed as relevant for the information system of the public health protection authorities, with their number being more than twice as high compared to 2005. It is evident that the EU RASFF in combination with other rapid alert systems such as the WHO International Food Safety Authorities Network (INFOSAN) play an increasing role in the management of activities of surveillance authorities.

In 2006, the Working Group on Novel Foods (WGNF), based in the Centre, drew up 27 expert opinions concerning applications submitted in EU, addressed EU member states with 35 inquiries, responded in writing to 103 inquiries from other EU member states and revised 4 new translations of the EC decisions in the field of NF. Background materials e.g. for the EU NF Catalogue were prepared for regular meetings of the EC Working Group on NF.

The GMO assessment coordination unit of the Centre in cooperation with other NIPH Centres drew up 27 expert opinions related to the GMO introduction into the environment in CR and 48 expert opinions related to the reports on GMO closed handling systems in CR (pursuant to Act No. 78/2004). The expert opinions were focused primarily on GMO risk assessment.

Numbers of expert opinions in the relevant fields in 2006

Type of activities for MoH CR/EC	No. of expert opinions
Reports to RASFF	228
GMO approval	75
NF approval	169

In 2006, two National Reference Centres (for microscopic fungi and their toxins and for Listeria) were part of the Centre and a new reference centre (for GMO) was established based on Commission Regulation (EC) No.1981/2006. Close to the end of the year, the Reference Centre for Listeria played an important role in advanced diagnosis of listeriosis outbreaks in CR (carried out typing of 196 *L. monocytogenes* isolates from food samples and patients).

In 2006, the Centre continued its activities as the WHO food safety contact point. In addition to providing information to WHO, the Centre went on spreading information from WHO INFOSAN to the public health protection authorities.

C. Monitoring of and research into relations between health and living conditions

The Centre is the long-term guarantor of the national programme in dietary exposure monitoring. In 2006, results of the monitoring period 2004-2005 were analyzed (see <http://www.chpr.szu.cz/monitor/tds05c/tds05c.htm>), bringing along a unique exposure assessment and possibly also health risk characterization for a number of harmful chemicals and biological agents typically found in Czech diet (contaminants, bacterial pathogens, microscopic fungi and their toxins and GMO). The results serve for use at both the national level and as the background information for the European Food Safety Authority (EFSA). Samples for this monitoring are collected in cooperation with 12 public health institutes in various

areas in CR. The methods and results of this longitudinal study were presented at the world meeting of monitoring system operators, the International Total Diet Study Workshop held in Beijing and organized by WHO (see <http://www.chpr.szu.cz/publications/2006/2006.htm>).



D. Research activities

The research priorities of the Centre were food safety and applied nutrition. In 2006, the Centre participated in 4 international research projects, i.e. projects of the 6th Framework Programme (SAFE FOODS, EFCOVAL) and DG SANCO (Direction Générale Santé et Protection des Consommateurs) (ENTER-NET). The Centre was also involved in the WHO project Global Salmonella Surveillance Network (GLOBAL SAL-SURV). At the national level, the Centre participated in two projects of the National Academy of Agricultural Science, Ministry of Agriculture, CR (SALMREZ, BIOFILMS), 1 project of the Ministry of Education, Youth and Sports of CR (Microbiological risks in dairy production) and 1 project of the Ministry of the Environment of CR (Laboratory detection of GMO used in production of food and feed). Research and other activities of the Centre resulted in publication of 55 various papers in 2006.

E. Continuing education and training of professionals and the general public

In 2006, the leading professionals of the Centre continued regular lecturing in the fields of human nutrition, microbiology, chemistry and toxicology. Their lectures are intended for both postgraduate (National Centre of Nursing and Non-Medical Health Care Disciplines, Institute for Postgraduate Medical Education) and pregraduate training of health care professionals. The Centre organizes regular on-site educational visits for secondary school and university pregraduate students and receives some students (n=6) for longer-term fellowships. It provides supervision to students of both medicine and technical universities working on their master and PhD theses (n=7). Several Centre professionals are members of university commissions for defence of PhD theses (e.g. in food safety, toxicology, etc.). They were also addressed by mass media to present commentaries on issues of concern to the general public (e.g. GMO, PAHs, trans FA, Listeria, etc.).

F. Other professional activities

One of the important activities of the Centre was providing technical support to the Scientific Committee for Food instituted as the EFSA partner team by MoH CR based on Government Resolution No. 1320/2001. The Centre provided formal and professional review of outputs of the Scientific Committee for Food available at <http://www.chpr.szu.cz/vedvzbor/vvp.htm>. Most frequently used SCF outputs in 2006 were primarily review materials on food supplements and novel foods relevant to both food control authorities and the curriculum of some universities. The Centre also provided expert opinions to the private sector. For capacity reasons, the extent of these activities was limited, mostly to advanced laboratory tests carried out in reference laboratories.

For more details on activities of the Centre, please visit <http://www.chpr.szu.cz>

3.6. Department of Biostatistics and Informatics



Head: Bohumír Procházka, MSc, PhD.

Team: 13 members (total calculated for 2006)

1. Mission

The major activities of the Department of Biostatistics and Informatics include creative support to the Centres and grant investigators in the fields of application of statistical methods and data processing and intramural and extramural consulting activities. Administration and development of the computer network and its protection, software operation, NIPH web pages designing and operation of NIPH network applications are other services provided by the Department.

2. Priorities

The major activities of the Department of Biostatistics and Informatics include creative support to the Centres and grant investigators in the fields of application of statistical methods and data processing and intramural and extramural consulting activities. Administration and development of the computer network and its protection, software operation, NIPH web pages designing and operation of NIPH network applications are other services provided by the Department.

A. Preparation of background information for national health policies

In 2006, the Department participated in the development of the nation-wide reporting system of infectious diseases EpiDat and its linking to the PanEuropean ECDC systems. The Department was also involved in analyses of reported HIV/AIDS cases and the development of the reporting system.

B. Methodical guidance and reference activities in health protection and promotion

The professionals of the Department were involved in design and administration of the national registries operated by MoH CR (reporting system of infectious diseases EpiDat, registry of acute respiratory infections - ARI, occupational classification registry and pandemics alert registry) and activities of the Informatics Advisory Board of the Chief Public Health Officer of CR. Furthermore NIPH and MoH CR participated in international projects within the Basic Surveillance Network ECDC, European Centre for the Epidemiological Monitoring of AIDS (EuroHIV), EC Network on Modelling, EISS mapping project and mortality, early warning and surveillance systems. The Department participated in the construction of new WHO Children Growth Standards.

C. Monitoring of and research into relations between health and living conditions

The statisticians of the Department participated in the investigation and analysis of data from different Environmental Health Monitoring subsystems of the Centre of Environmental Health, space time analysis of data from surveillance of infectious diseases and statistical detection of outbreaks

D. Research activities



The professionals of the Department have been involved in various grant projects carried out by both NIPH and extramural investigators. The Department manages the research activities in the field of children anthropometry including the grant project “Child growth and its assessment, social inequities and other factors influencing growth” and nation-wide anthropometric activities focused on children’s growth curves, secular trend and obesity. These activities result in updating the growth charts and explanatory text for the Health log.

The professionals of the Department participated in various projects including questionnaire based studies carried out by the NIPH Centres. They were substantially involved in the following projects: modelling in the fields of toxicology and toxicokinetics, epidemiological analyses and demographic data processing and use in epidemiological analyses. They contributed to the publication activities as both authors and reviewers and participated in conferences in the Czech Republic and other countries, often with invited communications.

E. Continuing education and training of professionals and the general public

The professionals of the Department provided regular lecturing in the field of biostatistics, on the one hand, to public health professionals within their postgraduate training, and on the other hand, to pregraduate medical students. Their lecturing activities also included training in biostatistics as part of the courses accredited by NIPH.

F. Other professional activities

The professionals of the Department are members of different commissions, councils and committees of professional associations. They designed software tools in response to the needs of various NIPH Centres. They assisted the NIPH researchers with the graphic presentation of results. They designed and constructed electronic tools needed by NIPH professionals.

3.7. Scientific Information Department



Head: Jana Veselá, MA

Team: 19 members (total calculated for 2006)

1. Mission

The major mission of the Department and its professional library is to provide library and information services to NIPH researchers and other professionals. Other activities are translation, editing and reprographic services. The library also provides public library and information services, mainly to the users of the network Public Information Services in the Health Sector, Public Health Service, other professionals and the general public.

2. Priorities

The priority of the Department was to provide up to date information from the most recent information sources. The library stock was systematically supplemented with the entire domestic book and journal production in the relevant fields and selected titles from other countries. The separation of the library items belonging to the National Radiation Protection Institute was completed and then the periodical library stock revision was started including the check for updateness. The Department continued providing access to full text and professional reference databases within 5 projects of the Ministry of Education, Youth and Sports and Ministry of Health of the Czech Republic, promotion of these databases and training of users on an individual basis. Duplicate accesses to these databases were controlled and the journal collections were completed. The in-house translators carried out translations for NIPH and MoH of CR and provided language consultations. All efforts were made to improve the quality of editing and design of the Central European Journal of Public Health and *Acta hygienica, epidemiologica and microbiologica* to facilitate their processing for indexing databases.

A. Library and information services

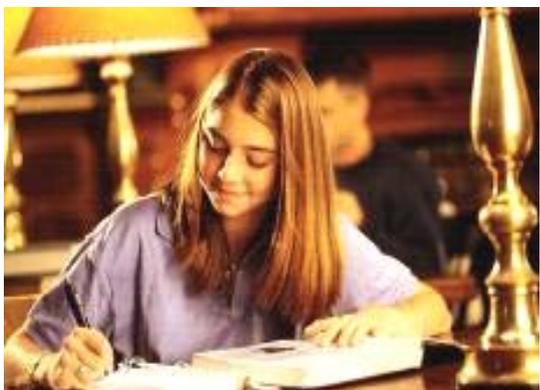
In 2006, a total of 28,368 library items were borrowed. As many as 2,093 interlibrary loan requests were met. Within the Virtual Polytechnic Library (electronic document supply system), the Department provided routine services as a member library. Altogether 1,160 retrospective retrieval requests and 101 prospective retrieval requests were processed. Citation retrieval outputs were edited to comply with the standard in force.

B. Designing new web sites and portals

In cooperation with the NIPH Centre of Occupational Health, Czech web pages were created within the project of the US National Library of Medicine: World library of toxicology, chemical safety and environmental health. The professionals of the Department collected and processed the most recent NIPH personal bibliography data on an ongoing basis. For this purpose, a new online questionnaire system was designed within the web site of the Department.

C. Editing activities

The Central European Journal of Public Health (CEJPH) was newly included by the EBSCO Publishing into the Medline with Full Text database. Throughout 2006, extensive updating of CEJPH details, including the CEJPH archive years, was carried out on the web sites of the Polish project Index Copernicus. Close to the end of 2006, CEJPH was newly rated to score 10 points on the Index Copernicus scale. For the CEJPH web site, digitalized archives of old CEJPH issues to the abstract level were created and the site was presented in both Czech and English versions with a new graphic design.



D. Other professional activities

The Department also provided other services to meet the needs of the NIPH Centres (editing non-periodical publications, photo documentation services and document digitalisation and graphic designing).

More details on the activities of the Department and list of services provided to the public are available at <http://www.szu.cz/svi/index.html>.

3.8. Quality and Authorization Department



Head: Věra Chaloupková, MD

Team: 9 members (total calculated for 2006)

1. Mission

The major mission of the Department is to implement the programme for the quality control of services provided in the field of public health protection (PHP). As laid down by the law on public health protection, the Department provides mainly the methodical and organizational support to the programme of authorization of laboratories for testing and measurement in PHP, provides authorization for persons to carry out health risk assessment in the fields defined by the law on public health protection and coordinates and conduct the programme of interlaboratory comparison of results of tests or external quality assessment in PHP, meeting the requirements of ISO Guide 43. Another mission of the Department in the field of PHP is to participate in the preparation of the programme for quality and efficacy of public health services and formulation of principles of the certification and accreditation programme for health care facilities.

2. Priorities

The priorities of the Department were to implement the programme for the quality assessment of services in PHP via the authorizations and to cooperate with MoH CR in the preparation of the basic structure for the assessment of the quality and efficacy of health care services to meet the requirements of the health policies of CR and WHO European strategies for the 21st century. Within the authorization programme, the standards, i.e. terms for providing authorization and methodical guidance, i.e. authorization guidelines on the criteria to be met in the authorization procedure, were revised. Based on these activities, new web pages intended for both professionals and the general public interested in the quality of PHP services were designed. Moreover, within its tasks in the field of quality, the Department cooperated with the Ministry of Health, Office for Technical Standardization, Metrology and State Quality Control and Czech Metrology Institute in the preparation of conceptual policies in the fields of metrology and chemical and biological measurement in agreement with the requirements of the European metrology institutions.

A. Authorization of laboratories

In 2006, 27 applications for authorization of laboratories were submitted. Thirteen of these applicants obtained the authorization certificate in 2006, 6 authorization procedures were cancelled and 8 authorization procedures were transferred to 2007. Nine authorization applications submitted in 2005 were concluded. Within the control activities, the participation of all authorized laboratories in the interlaboratory comparison tests and external quality assessment scheme was checked during the authorization certificate validity period, in compliance with Act No. 258/2000 as last amended.

B. Authorization of health risk assessment professionals

The Department organized a training course in health risk assessment with the participation of 23 enrollees. Based on their achievement in the written test, 20 participants obtained a certificate of completion. Eight applications were submitted: 2 for issuing the certificate and 6 for prolongation of the certificate validity. Eight certificates were issued. In 2006, 8 applications for prolongation of the certificate validity submitted in 2005 were processed and 12 certificates were issued. A control of the compliance with the authorization terms in health risk assessment in 2005 was carried out. The outcomes of this control are expert opinions of the examination commission members on the reports submitted by the authorized persons for review. The expert opinions were sent to the authorized persons.



C. External quality assessment in laboratories

The professionals of the Department coordinated the external quality assessment scheme – interlaboratory comparison tests – organized by the NIPH Centres, particularly with reference to the authorization requirements. They also organized an interlaboratory comparison test for determination of inorganic substances in foods. Altogether 14 laboratories participated in this programme, including two Slovak laboratories. The professionals of the Department were also involved in the interlaboratory comparison test “Indoor particulate matter measurement in the workplace”, with the participation of 42 laboratories.

D. Research activities

The Department, within its activities in the former NIPH Centre for Quality in Health Care, was involved in the CEEQNET project whose objectives are to assess the used health care quality indicators and to define the usability of the existing data sources. For the purposes of further innovation of the methodical approaches to the authorization in health risk assessment, i.e. of the authorization guidelines, extensive retrieval of the latest knowledge was done in all fields of health risk assessment. Within the preparation for the innovation of the laboratory authorization model, preliminary analysis of the existing regulatory, professional and procedural requirements was carried out for the Ministry of Health of CR and a proposal was made for further development activities related to the EU requirements for the quality control of services provided in the field of public health protection.

E. Continuing education and training of professionals and the general public

The professionals of the Department were involved in the postgraduate training of health care providers and other professionals conducting activities requiring authorization pursuant to the law on PHP. The professionals of the Department participated in conferences and workshops related to the quality control programmes in the health care sector, in the fields of PHP, health care settings and clinical laboratories. Cooperation with the National Centre of Nursing and Non-Medical Health Care Disciplines, Brno, was deepened, particularly in the training of professionals from the public health institutes and regional public health stations. The following lectures were given at the organized courses: Occupational Health; Sensorial Assessment of Foods, Water and Products; Disinfection, Sterilization; For the Laboratory Quality Managers; National Reference

Laboratories for Noise; Food Sampling; Water Sampling; Work Physiology; Sensorial Assessment in the Field of Nutrition; Heads of the Laboratory Centres of the Public Health Institutes. Within the programme of authorization of laboratories, training courses were organized for those interested in authorization, authorization holders and authorization procedure coordinators and auditors. Within the health risk assessment programme, a workshop was organized for authorization holders, professional certificate holders and representatives of the regional public health stations and public health institutes.

F. Other professional activities

The Department cooperated with the Economic Chamber of CR by participating in the meetings of its Technical Legislation Advisory Group that started its activities in reaching a consensual position on the efficacy of the quality control of PHP services and its further surveillance. It provided a great number of consultations to professionals from the Ministry of Health of CR, State Institute for Drug Control, Office for Technical Standardization, Metrology and State Quality Control, health care facilities and to those interested in the authorization programme.

For more details on activities of the Centre, please visit <http://www.szu.cz/cekz/index2.php?str=strediskoinfo>

3.9. *Veterinary Services Department*

The main responsibility of the Department is the care of laboratory animals used by experimenters. In 2006, no problem in purchasing and housing laboratory animals, purchasing animal diet, drugs, bedding and using various technological elements was reported. All activities of the Department were conducted in compliance with Act No. 246/92 on the protection of animals against cruelty, Decree No. 311/97 of the Ministry of Health of the Czech Republic on the care and use of experimental animals and Act No. 166/99 on veterinary care (called veterinary law). In 2006, the Department carried out:

- 200 autopsies of laboratory animals, with 80 of these animals examined histologically (200 organ samples) and 4 of these animals examined bacteriologically,
- 212 environmental smears from animal housings,
- 14 parasitological examinations.

4. PUBLICATION ACTIVITIES

The NIPH publication activities 2006 were regularly processed by the Scientific Information Department and entered into the NIPH personal bibliography database. In 2007, the respective part of the records is going to be reported to the database of the VaV (Research and Development) Information System, more precisely to the Information Registry of Results (acronymed RIV) archiving and making available data on publication activities related to research and development projects and plans supported by public funds of the Czech Republic. As many as 491 bibliographic records of works published in 2006 were processed by February 28, 2007. Thirty-four publications resulted from cooperation of authors from more than one Centre/institution. Publications from 2005 were progressively added to achieve the current number of 520 records. Thirty-six out of 241 papers accepted for publication appeared in 31 high-impact journals. Fourteen abstracts from conferences and other meetings were also published in high-impact journals. The bibliographic records of the NIPH publication activities of 2006 will be presented in electronic form in a special issue of the journal *Acta hygienica, epidemiologica et microbiologica*. The NIPH Personal Bibliography is available at <http://www.szu.cz/svi/ahem.html>

Numbers of publications by Centre in 2006 (by February 28, 2007)

NIPH Centre/ No. of employees		CEM 156	CEH 67	CHFC 31	CHLC 84	COH 94	DBI 14	QAD 9	OD 10	Total 465
Journal paper	CR	93	23	9	21	42	11	0	2	201
	Others	17	2	4	4	20	2	0	1	50
Abstract in a journal	CR	2	0	0	0	2	1	0	0	5
	Others	7	0	0	4	7	1	0	0	19
Monograph (incl. CD)	CR	1	9	4	5	5	1	5	1	31
	Others	1	0	0	0	0	0	0	0	1
Proceedings article	CR	37	35	30	6	12	6	2	0	128
	Others	21	4	8	15	16	8	0	1	73
Chapter in a monograph	CR	1	1	0	1	1	0	0	0	4
	Others	6	0	0	0	0	0	0	0	6
WWW document	CR	6	0	0	1	0	0	0	0	7
	Others	0	0	0	0	0	0	0	0	0
Total	CR	140	68	43	34	62	19	7	3	376
	Others	52	6	12	23	43	11	0	2	149
Total		192	74	55	57	105	30	7	5	525

5. ANNEXE: SELECTED ECONOMIC INDICATOR

The annual economic report 2006 was drawn up pursuant to Decree No. 323/2005 of August 12, 2005. The report is available at the NIPH web pages: <http://www.szu.cz>

Budget data

NIPH is a contributory organization; as such it has no binding indicators established and does not take any budget measures. The state budget provides 82.2 % of the NIPH costs. Incomes from health insurance companies cover 6.5 % of the NIPH costs and the remaining part is obtained from research and professional contracts and payments for services provided to the private sector.

Personnel data

The number of NIPH employees after adjustment was 640. The calculated mean annual number of NIPH employees was 592.32.

1. Distribution of NIPH employees by age and gender by December 31, 2006

Age	Males	Females	Total	%
20 years or less	0	0	0	0
21 – 30 years	18	56	74	11.80
31 – 40 years	16	68	84	13.40
41 – 50 years	33	115	148	23.60
51 – 60 years	72	173	245	39.08
61 years or more	40	36	76	12.12
Total	179	448	627	100
%	28,55	71,45	100	

2. Distribution of NIPH employees by education level and gender by December 31, 2006

Education level	Males	Females	Total	%
Elementary	3	9	12	1.91
Trainee	37	24	61	9.73
Trainee graduate	0	7	7	1.12
Grammar school graduate	4	9	13	2.07
Secondary school graduate	25	204	229	36.52
Extension studies graduate	1	6	7	1.12
University graduate	109	189	298	47.53
Total	179	448	627	100

Personnel costs

In 2006, NIPH received a personnel cost contribution of CZK 143,803,000 (as a limit sum from the total contribution). Over the year, the contribution was reduced by CZK 2,863,000 due to 13 redundancies (as a result of the transfer of specific activities to the central authority) and after the transfer of a total of CZK 776,000 from the item of personnel costs to that of other personnel costs, the total for personnel costs reached CZK 140,164,000. The funds used to cover personnel costs or personnel cost compensations reached CZK 146,289,887, including the allocated special-purpose funds. The personnel costs provided from the personnel cost contribution amounted to CZK 139,806,359.

Average gross monthly pay by December 31, 2006

Average gross monthly pay	CZK 20, 582
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Extrabudgetary sources – personnel cost funds (in CZK)

Research project	Allocated fund	Provided pays	Remaining fund
Internal Grant Agency of MoH CR	3 761 000	3 742 633	18 367
Grant Agency of CR	644 000	644 000	-
Ministry of the Environment	159 100	159 100	-
Academy of Sciences	7 000	7 000	-
Ministry of Agriculture	251 000	251 000	-
Ministry of Education, Youth and Sports	392 000	385 718	6 282
Ministry of Industry and Trade	150 000	150 000	-
Total of internal projects	5 364 100	5 339 451	24 649
Total of international research projects	1 186 000	1 144 077	41 923
Total	6 550 100	6 483 528	66 572

Extrabudgetary sources for other personnel costs (in CZK)

The fund of CZK 83,000 allocated by the founder for other personnel costs was increased by CZK 675,000 for severance pays from the personnel cost fund and by CZK 101,000 for other personnel costs. The severance pays amounted to CZK 608,300 and the provided other personnel costs were CZK 175,415, both covered from the fund for other personnel costs. The used up special-purpose funds intended for other personnel costs amounted to CZK 1,570,022.

Research project	Provided other personnel costs (in CZK)
Internal Grant Agency of MoH CR, total	77 996
Ministry of the Environment	35 000
Ministry of Education, Youth and Sports	20 000
EU project CEEQNET	234 500
EU project BOVAC	25 000
EU project NOMIRACLE	132 600
EU project „Mechanisms of induction of cancers in the head/neck region by tobacco and alcohol and their prevention“	51 050
EU project „Implementation of mental health promotion and prevention policies and strategies in EU member states and applicant countries“	46 062
EU project AMAY	290 150
EU project TECHNEAU	146 850
EU project INTARESE	260 900
EU project EODS	54 264
EU project PLASTER	97 300
EU project Ben RHM II	98 350
Total	1 570 022

Research and development

Numbers of projects and grants obtained from the state budget

Grant agency	Principal investigator NIPH No. of projects	Coinvestigator NIPH No. of projects
Internal Grant Agency of MoH CR	13	5
Grant Agency of CR	2	4
Academy of Sciences CR	0	1
Ministry of Agriculture	3	0
Ministry of the Environment	0	1
Ministry of Education, Youth and Sports	3	1
Ministry of Industry and Trade	0	1
Total	21	13

Research and development costs funded from the state budget

1. Principal investigator NIPH

Noninvestment funds	Allocated amount in CZK	Used up amount in CZK	Amount returned to the state budget
Internal Grant Agency of MoH CR	11 158 000	11 000 127	157 873
Grant Agency of CR	1 338 000	1 338 000	0
Academy of Sciences CR	0	0	0
Ministry of Agriculture	1 073 000	1 073 000	0
Ministry of the Environment	0	0	0
Ministry of Education, Youth and Sports	1 079 000	1 079 000	0
Total	14 648 000	14 490 127	157 873

Investment funds	Allocated amount in CZK	Used up amount in CZK	Amount returned to the state budget
Internal Grant Agency of MoH CR	134 000	134 000	0
Ministry of Education, Youth and Sports	271 000	271 000	0
Total	405 000	405 000	0

2. Coinvestigator NIPH

Noninvestment funds	Allocated amount in CZK	Used up amount in CZK	Amount returned to the state budget
Internal Grant Agency of MoH CR	894 000	879 756	14 244
Grant Agency of CR	1 309 000	1 309 000	0
Ministry of the Environment	700 000	700 000	0
Academy of Sciences CR	97 000	97 000	0
Ministry of Industry and Trade	500 000	500 000	0
Ministry of Education, Youth and Sports	285 000	276 334	8 666
Total	3 785 000	3 762 090	22 910

Research and development projects funded from sources other than the state budget

Type of project	No. of projects
Project funded by other country (ies)	9
Project funded by CR	5
Total	14

Type of project	Costs in CZK
Project funded by other country (ies)	4 269 054
Project funded by CR	1 807 953
Total	6 077 007

Programmes or projects co-funded from the EU budget

EU Project title	EU funds (in CZK)		Used NIPH funds (in CZK)	
	Non-investment	Investment	Non-investment	Investment
PREVIS	1 068 707	0	0	0
SAFE FOODS	427 406	0	0	0
CEEQNET	317 310	0	0	0
MENNET	147 000	0	0	0
Health Professional and Smoking Cessation in a Larger Europe-Phase 1	10 118	0	0	0
APN BTG	146 690	0	0	0
BOVAC – Development of a prophylactic vaccine and diagnostic markers to prevent and diagnose Lyme Borreliosis	1 305 893	0	0	0
NOMIRACLE-003956	277 358	170 054	275 756	0
Implementation of Mental Health Promotion and Prevention Policies and Strategies in EU Member States and Applicant Countries	55 856	0	0	0
DIEPHY-Dietary Exposures to Polycyclic Aromatic Hydrocarbons and DNA Damage	116 150	0	0	0
ETHREAT-European Training for Health Professional on Rapid Responses to Health Threats	32 844	0	97 168	0
AMAY-Aloe Vera-Maximising yield of effective compounds and development of natural cosmetic products with standardised content of these compounds	559 607	0	0	0
ICTTD 3	68 510	0	0	0
ESBIO	42 271	0	0	0
Benchmarking Regional Health Management II (Ben RHM II)	98 350	0	0	0
TECHNEAU-Technology enabled universal access to safe water	301 282	0	0	0
PHIME	125 124	0	0	0
INTARESE	292 086	0	0	0
Research on biological efficacy of repellents against blood-sucking insects and some arthropods	129 099	0	0	0
EODS- European Occupational Diseases Statistics	88 256	0	0	0
PLASTER-Innovative production of high quality indoor earth plaster by adding cattail fibre	250 868	0	0	0
EISS	699 952	0	0	0
EPIET	11 643	0	781 376	0
EUVAC.NET	0	0	148 587	0
Total	7 071 040	170 054	1 302 887	0

To cover the costs incurred in relation to the contract-based EU projects a sum of CZK 1,622 thousand was allocated from the NIPH reserve fund.

Funding of the property reproduction programmes included in the programme funding information system

Activity	Allocated amount in CZK
Conversion of building No. 8 (former boiler house) to an administrative and maintenance centre (registration number: 2350120202)	4 567 000
Purchase of 19 apparatuses for BL3 laboratories (registration number: 2352230201)	2 425 000

6. ANNEXE: LIST OF ABBREVIATIONS

AAS	Atomic Absorption Spectrometry
AP	Authorized Person
ARI	Acute Respiratory Infection
AS	Academy of Sciences
CAI	Czech Accreditation Institute
CCFH	Codex Committee for Food Hygiene
CEEQNET	Central and Eastern Europe Quality Network
CEM	Centre of Epidemiology and Microbiology
CEN	Comité Européen de Normalisation
CEN TC	Comité Européen de Normalisation - Technical Committee
CEN/BT WG	Comité Européen de Normalisation/Technical Board Working Group
CHFC	Centre for the Hygiene of Food Chains
CHLC	Centre of Health and Living Conditions
CINDI	Countrywide Integrated Noncommunicable Diseases Intervention
CMC	Czech Medical Chamber
CMI	Czech Metrology Institute
CMPS	Czech-Moravian Psychological Society
CMV	Cytomegalovirus
CNC	Czech National Council
CNI	Czech Standards Institute
CNPM	Centre of the HIV/AIDS National Programme Manager
COH	Centre of Occupational Health
CR	Czech Republic
CSI	Centre of Building Construction, Engineering, Joint Stock Company
CSN ISO	Czech Technical Standard, International Organization for Standardization
CTI	Czech Trade Inspection
CUP	Commonly Used Products
CZECOPA	Czech Consensus Platform for Alternatives
CZPI	Czech Agriculture and Food Inspection
CZU	Czech Agriculture University
DBI	Department of Biostatistics and Informatics
DG SANCO	Direction Générale "Santé et protection des consommateurs" -Directorate General for Health and Consumer Affairs
EBRCN	European Biological Resource Centres Network
EBSCO	Elton B. Stephens Company
EBV	Epstein-Barr virus
EC	European Commission
EC/DG	European Commission/Directorate General
ECCO	European Culture Collection Organization
ECDC	European Centre for Disease Prevention and Control
ECVAM	European Centre for the Validation of Alternative Methods
EEC	European Economic Community
EFCHOVAL	European Food Consumption Validation
EFNS	European Federation of Neurological Societies
EFSA	European Food Safety Authority
EHPS	European Health Psychology Society
EHR	Europe HIV Resistance
EISS	European Influenza Surveillance Scheme
emm typing	molecular-based sequencing method
ENHIS	Environment and Health Information System
EODS	European Occupational Diseases Statistics
EPCO	EFSA Pesticides Peer Review Co-Ordination
EQA	External Quality Assessment
EpiDat	Information system storing epidemiological data on infectious diseases in CR
ES	Elementary School
ESBIO	Expert team to support biomonitoring in Europe
ETHREAT	European Training for Health Professionals on Rapid Responses to Health Threats

EU	European Union
EU 6 FP	EU 6 th Framework Programme on Research
EUMS	EU Member States
EUROSTAT	Statistical Office of the European Commission
FA	Fatty acid
FCM	Food contact materials
FetA sequence typing	molecular-based sequencing method
FFUK	Faculty of Philosophy & Arts, Charles University
FNKV	Královské Vinohrady University Hospital
FP	EU Framework Programme on Research
GA AV CR	Grant Agency of the Academy of Sciences of CR
GA CR	Grant Agency of CR
GLOBAL SAL-SURV (GSS)	Global Salmonella Surveillance Network
GLP	Good Laboratory Practice
GMO	Genetically Modified Organism
HAPIEE	Health, Alcohol and Psychosocial factors In Eastern Europe
HBSC	Health-Behaviour in School-Aged Children
HELEN	Health - Life Style - Environment
HH	Chief Public Health Officer
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
HPP	Health Promotion Programme
HRA	Health Risk Assessment
HSV	Herpes Simplex Virus
IANPHI	International Association of National Public Health Institutes
ICT	Interlaboratory Comparison Tests
ICT/EQA	Interlaboratory Comparison Tests/External Quality Assessment
IF	Impact Factor
IF Method	Immunofluorescence Method
IGA	Internal Grant Agency of MoH CR
ILF	Institute of Physicians and Pharmacists
INFOSAN	International Food Safety Authorities Network
INTARESE	Integrated Assessment of Health Risks from Environmental Stressors in Europe
IPV	Inactivated Polio Vaccine
IPVZ	Institute for Postgraduate Medical Education
ISO	International Organization for Standardization
ISO TC	International Organization for Standardization – Technical Committee
IT	Information Technologies
IUHPE	International Union for Health Promotion and Education
KG	Kindergarten
KHS	Regional Public Health Station
KTL	National Public Health Institute, Helsinki, Finland
LFUK	Faculty of Medicine, Charles University
MLST	Multilocus Sequence Typing
MoH CR	Ministry of Health of CR
MPC	Maximum Permissible Concentration
MPC-W	Maximum Permissible Concentration in Workplace Air
NAZV (NAAS)	National Academy of Agricultural Sciences
NCONZO	National Centre of Nursing and Non-Medical Health Care Disciplines
NCP	National Contact Point
NF	Novel Foods
NHP	National Health Programme
NHP-HPP	National Health Programme – Health Promotion Projects
NIMR	National Institute for Medical Research
NIPH	National Institute of Public Health
NRC	National Reference Centre
NRL	National Reference Laboratory
OC	Occupational Classification
OD	Office of the Director
OPC	Other Personnel Costs
OPV	Oral Polio Vaccine
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
PCR	Polymerase Chain Reaction

PEL/STEL	Permissible Exposure Limit/Short-Term Exposure Limit
PHGEN	Public Health Genomics European Network
PHI	Public Health Institute
PHIME	Public health impact of long-term, low-level mixed element exposure in susceptible population strata
PHP	Public Health Protection
PHPA	Public Health Protection Authorities
PHS	Public Health Station
POM	Population Health Monitoring
POPs	Persistent Organic Pollutants
PorA sequence typing	molecular-based sequencing method
QA/QC	Quality Assurance/Quality Control
QAD	Quality and Authorization Department
RAPEX	Rapid Alert System for Non-Food Products
RASFF	Rapid Alert System for Food and Feed
REACH	Registration, Evaluation, and Authorization of Chemicals
REGEX	Registry of Occupational Exposure to Chemical Carcinogens
RG	Research Group
RIV	Information Registry of Results
SAFE FOODS	Promoting Food Safety through a New Integrated Risk Analysis Approach for Foods
SALMREZ	Salmonella antimicrobial resistance monitoring
SARS	Severe Acute Respiratory Syndrome
SC	Scientific Council
SCF	Scientific Committee for Food
SHS	State Health Surveillance
SID	Scientific Information Department
STI	Sexually Transmitted Infections
Taiwan CDC	Taiwan Center for Disease Control
TECHNEAU	Technology Enabled Universal Access to Safe Water
TV	TV broadcast
UK	Charles University
UNAIDS	United Nations Joint Programme on HIV/AIDS
VSD	Veterinary Services Department
VaV-SM	Science and Research – Study of the secondary particles formation from gas precursors and their contribution to the total pollution burden
VISZ	Public Health Information Services
VVP	Scientific Committee for Food
VZV	Varicella-Zoster Virus
WFCC	World Federation for Culture Collections
WG	Working Group
WHO	World Health Organization
WHO RRL	WHO Regional Reference Laboratory
WHO/CDC	World Health Organization/Centers for Disease Control and Prevention