

**STÁTNÍ ZDRAVOTNÍ ÚSTAV PRAHA**  
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## **1. Position and tasks of the NIPH in the protection and promotion of public health**

Under Act No. 258/2000 Dig. on the protection of public health in the valid wording of its article 86, the National Institute of Public Health has been founded as a healthcare facility, a contributory organization of the Ministry of Health of the Czech Republic. That legal decision came into force January 1, 2003, and thereby there has begun a new era of the Institute, continuing in its many year development and expansion, although from time to time interrupted by various organizational twists and turns that have never encroached on its professional quality. Its present director, Jaroslav Volf, M.D., Ph.D., assumed his duties on January 1, 2003.

Along with the new statute there have been newly defined the tasks of the NIPH and its position in the system of organizations concerned with the protection and promotion of public health. Following many year discussions there has been found a sound basis in the law even for the National Institute of Public Health. It seems that with the nearing of the anniversary of its 80-year duration the Institute is also formally returning into the firm structure of Czech healthcare, as it was in the 1920s on its establishment.

In its vast activities the Institute reflected the dynamics of the year 2003 that passed under fundamental changes in the structure of the former hygiene service. The Institute joined the ranks of healthcare facilities for which it has created a professional background. The tasks of the Institute are defined by law and in its statute. By law it has been established for the preparation of documentation for the national health policy, for the protection and promotion of health, for ensuring methodological and reference activities, for the monitoring and study of the relationship of the environment and health, for ensuring international cooperation in the protection and promotion of health, for quality control of services provided in public health protection, for postgraduate training and for health education of the public. The Institute also provides scientific and research activities as authorization and reporting activities.

The year 2003 was extraordinary for the Institute not only due to the gradual identification of its new role, but also in that with the nearing of the entry of the Czech Republic into the European Union there have been, often at a hectic pace, finalized the legislative preparations of European integration. That required more than standard effort in the final touches on each document the preparation of which the Institute had participated in. Many new methodological and authorization activities followed from the needs of Regional Public Health Centres and healthcare institutions in their fulfilling of requirement following from the Act on public health protection. The transition to being a contributory organization also meant substantial changes in economic.

Not withstanding a number of problems that have been a natural consequence and concomitant phenomenon of that period, The National Institute of Public Health is entering the year 2004 with good perspectives and self-conscience in becoming a modern and fully functional European healthcare facility.

## **2. Activities of the NIPH centres and services**

### **2.1. Centre for the Hygiene of Food Chains**

Like in previous years, the CFCH has focused its activities on the problems of food safety and applied nutrition practically in all segments of risk analysis, namely from risk analysis within the framework of research, through management through participation in working out legislation, down to communication on risks in the form of collaboration in education, collaboration with the media and creating its own web site. The number of graduated staff fluctuated around 28. To that number there also has been adapted the scope of professional activities. Of the traditional activities on a long-term basis there predominated namely monitoring of the dietary exposure of humans, however, attention has also turned to microbiological diagnostics of pathogens in foodstuffs, to the novel subject of GMOs, as well as vast activities connected with organizing the agenda of the so-called Scientific Committee for Foodstuffs and of ensuring the Rapid Alert System for Food and Feed (RASFF) for organs of public health protection. No small effort has been focused by leading workers on the preparation of documentation for legislative procedures at the Ministry of Health (foremost on GMO) and on preparations of documentation in connection with harmonization and implementation of European law (regulations in the field of safety of foodstuffs). A traditional component of the work of the Centre has also been participation in educational activities by holding various lectures and courses, from study sojourns of secondary school and university students, through specialized consulting actions, up to postgraduate training in the field of nutrition hygiene.

Monitoring of the dietary exposure of humans has continued in its tenth year of operation. In the newly established collaboration with 12 healthcare institutions, in spite of difficulties caused by the reorganization of the public health system, there has been successfully kept the time schedule of activities, so there are available exposure data for the assessment of health risks for about 60 different chemical substances. Besides the traditional evaluation of the numbers of reported alimentary infections there also continued pilot projects focused on major bacterial pathogens in foodstuffs and on the presence of toxigenic microscopic fungi. Part and parcel of the monitoring programs there was a section focused on the detection of selected GM foodstuffs on the market in the Czech Republic with the aim of describing them and thereby contributing to the forming of the so-called post-market monitoring that is not required legislatively although no hypothesis has been clearly formulated as yet. The overall number of monitoring projects worked on by the Centre has thus reached the sum of five.

An inseparable requirement for the assessment of dietary exposure risks is knowledge of the foodstuff consumption level. In that sense the Centre has continued in the preparation and testing of methodological documentation for a national survey of the individual consumption of foodstuffs in the form of repeated 24-h recall. There have been tested and improved questionnaires and aids for the quantification of foodstuffs consumed. Simultaneously there was being amended the data base of food recipes, which in turn shall facilitate the transfer of questionnaire data into a form suitable for nutrition evaluations. An important accomplishment was the finalizing of the organization of the national survey into practice through a private company (GfK) which shall carry out the collection of data in the whole of the Czech Republic. The survey planned for a longer period of time has begun November 1, 2003, following the training of a team of investigators.

As regards the problem of novel foods and GMO, the year 2003 was witness of the opening of new laboratory facilities and their supplementation with modern technology through a Phare program, and that came off at the close of the year. We have been successful in substantially improving the quality of output, new methods have been introduced (in-house methods of GMO demonstration). That has been reflected in better productivity and the young team acquired basic experience.

In the field of microbiology there continued studies on the problems of toxinogenic micromycetes (there has been prepared new methodological material applicable in authorization procedures), in the area of bacterial pathogens in foodstuffs there continued the introduction and verification of molecular biology diagnostic methods. Routine activities also included salmonella typing in cases of isolation in clinical disease. Those activities are specified more closely in annual reports of two reference laboratories operating at the Centre.

In the area of analytical chemistry the introduction of methods for the determination of PCDD/PCDF/PCB and acrylamide has been worked on. Although much attention has been devoted to the methods, they are still not ready for practical application, in part also for reasons of changes in staffing during the year. Therefore, there has been utilized the opportunity of determining PCDD/PCDF/PCB and acrylamide in foodstuffs in collaboration with top external facilities. A selected series of samples from the monitoring of dietary exposure has been investigated. Results shall be evaluated in the year 2004. A certain capacity of the Centre has been devoted to the study of the B group of vitamins (B<sub>1</sub>, B<sub>2</sub>, B<sub>6</sub>) in samples from the nationwide monitoring.

Also in the year 2003 the Centre worked in the system accredited according to ČSN EN ISO/IEC 17025. The Centre's workplaces passed successfully the planned independent control by the Czech Information Agency. The continuous requirements on quality at work and on discipline along with relatively low pay leads to continuous changes in the staff of the Centre. That has both a positive and negative impact. It facilitates a gradual reorganization of the team, however, the Centre is losing experienced workers who are then lacking in advanced research.

In the area of collaboration on the harmonization and implementation of European law the Centre participated in the securing of documentation for amending the Decree on irradiation of foodstuffs and the maximum limits for residues of veterinary drugs. The Centre was also engaged significantly in the area of the Rapid Alert System for Food and Feed (RASFF). A new server has been put together which serves i.e. also for the distribution of RASFF information from the National Contact Point for Organs of the Public Health Service. For those activities there has been elaborated an operational manual. The system operates in real-time and worked without any problems over the whole year 2003.

The Centre was also entrusted with the providing of a background for the so-called Scientific Committee for Foodstuffs (SCF) which has been established in the basis of governmental decree No. 1320/2001. Activities of the SCF were in full swing from the beginning of 2003. In the course of the year the SCF produced a number of voluminous public documents (cross-sectional documents on food safety) and elaborated several

standpoint documents in response to forwarded queries. A continuing complication of the SCF's activities is a lack of top experts willing and apt to work for the SCF effectively.

In the area of education, the Centre held in collaboration with other institutions several technical consultations (e.g. regarding mycotoxins, monitoring, acrylamide analysis, etc.), further, its workers have participated as lecturers at a number of seminars and courses (health risk assessment, analytics, problems of microbiology, nutrition epidemiology, novel foods, human nutrition, etc.). At the Centre there has been defended one Ph.D. thesis, and several students have been working on their qualification theses.

In the year 2003 the Centre participated in a number of international talks and negotiations in which it represented the Czech Republic (foremost WHO, OECD, EU). The Centre is not a WHO collaborating centre, however, it has been designated as a National Contact Point for Food Safety. Workers of the Centre officially represent the Czech Republic at the OECD (Task Force for Safety of Novel Foods and Feeds) and ICGFI (International Consultative Group for Food Irradiation).

The Centre held 2 tutorial days, 1 seminar, and organized 2 study visits. Within the framework of postgraduate studies in biomedicine 5 students studied under the guidance of 2 supervisors. Supervised were 3 qualification theses.

## **2.2 Centre of Health and Environment**

The fundamental role of the Centre and its corresponding structure and concept have not changed in 2003. Of pressing interest were tasks regarding the elaboration of legislative documents connected namely with the finalization of harmonization with the EU and those connected with finishing touches concerning the Act on public health protection. In the realm of health promotion, besides working on a number of its own projects, the Centre was making finishing touches in methodologies of the preparation, formation and determination of criteria for the assessment of health promotion projects. Vast were methodological and reference activities in connection namely with the introduction of new tasks of the public health service, which followed from the requirements of the Act on public health protection. Paid expertise activities achieved planned proceeds although there had been anticipated a decreased interest among clients in connection with changes in legislative requirements on the introduction of products on the market. Tasks in the protection of public health in the field of products and regarding the maintaining of quality of work required new accreditation. At the Czech Institute for Accreditation there have been accredited a number of laboratory methods and the CHLC has been accredited as a whole, whereby there has been given a foundation for the centralization of laboratories, that having been gradually taking place over the past years. The Centre has likewise worked a number of research and health promotion projects. A separate area were editorial activities for health education with nationwide competence.

The staff of the Centre formed or participated significantly in the creation of 10 provisions of nationwide competence. In question were, for instance: Decree on the maximum admissible amounts of individual kinds of pesticide in foodstuffs; Decree on cosmetics products; Decree on the application of additives in foodstuffs; Decree on the application of flavorings; Decree on nutrition labeling; Decree on dietetic foodstuffs; Decree on nutrition

supplements; Decree on public health requirements on materials intended for contact with foodstuffs and foods.

Further, there was collaboration in the creation of Framework Educational Programs for Elementary Schools and Kindergartens, the Act on protection against damage caused by tobacco, alcohol and other addictive substances, and the Act on crop protection.

Out of the participation of the Centre's workers in various specialist commissions there followed work on the creation of European legislation regarding pesticide residues, cosmetics products, microbiology of foodstuffs, material coming into direct contact with foodstuffs, and the control of tobacco products.

The workplace of health promotion and disease prevention of the CHLC was entrusted with the creation of a coordinating centre of EU community projects, through which there has been prepared and submitted a number of project applications. That workplace indulged in methodological and educational activities namely for healthcare institutions on the subject of health promotion, education towards health, and preventive consulting. Besides that, the CHLC worked on several health promotion projects. The most important were projects of nationwide impact: "Call your heart to exercise" – a project for improving one's physical regime; "Life full of flavor" – a project for a wholesome diet in the elderly; "Health-promoting Pharmacies" – a project establishing preventive counseling through pharmacies; "Prevention of damage to the skin due to negative environmental factors"; and "Prevention on the Internet".

The basis of methodological and reference activities were educational programs. New requirements on the functioning of the public health service as an organ of public health protection called for the holding of several seminars on the subject "Supervision of cosmetics products" and "Safety of articles intended for contact with foodstuffs and foods". Similarly focused seminars were also held for producers, importers, and distributors of such products.

Other most important seminars were for teachers named "Smoking and Me", a discussion forum for public health workers "Current problems and methods of microbiological testing and evaluation of foodstuffs", courses for teachers on the subject "Schools promoting health", and last but not least, seminars of the Drugs Information Centre which has been operating at the CHLC for several years already.

Besides seminars there took place many individual consultations, methodological visits and instruction at each Regional Public Health Centre. Workers of the Centre are working in all consultative bodies and working groups according to their specialization.

Noteworthy is also the organizational activity and participation in the assurance of the program of the Meeting of National Directors of the CINDI WHO Program, which took place in May 2003, in Prague. The CHLC is the coordinating centre of that program for the Czech Republic.

Paid expert activities were namely in the areas of the assessment of safety of cosmetic and cleansing products, toys, food contact materials, building materials, food supplements, dietary foods, food additives, and crop protection agents. A total of 2382 expert opinion assessments have been carried out, and each meant negotiations with the client, the

studying of documentation, performing analyses, and the elaboration of an expert opinion. By these activities the CHLC not only contributed to the budget of the Institute, but also broadened its experience in the estimate of potential population burdens.

Within the framework of research project intentions, in the year 2003, several projects have been worked on. Of a methodological nature were, e.g. comparative studies of selected active substances of cosmetics products by clinical methods in volunteers and by experimental methods *in vitro*. There have also been validated analytical methods suitable for verification of the migration tests for the assessment of the risk posed by food contact articles, toys, and products for children under three years of age.

There has been carried out a survey of the behavior of people with sensitive skin as regards the use of protective agents, as well as surveys on the indoor environment in hospitals, an assessment of health risks following from human behavior, and a survey of the prevalence of smoking in the adult population. There has been carried out an empirical investigation of the sources and conditions of personal well-being.

The staff of the Centre took part in working on GA AV grant projects "Hydrophilic polymeres with bound saccharides for biological applications" and Social support as an important protective factor", on GA ČR project "Psycho-social inequality in health", and on the IGA grant project "Follow-up of the anti-mutagenic and immunomodulatory effects of selected substances of natural origin".

Within the framework of international collaboration in research, significant was the share in the project focused on the possibility to exploit the model of human skin for dermatotoxicity evaluations with ZEBET, Berlin. There has been carried out an evaluation of the comparative survey "CINDI Health Monitor" which on an international scale has mapped human behavior regarding health, and finalized has been the international WHO study "Global Youth Tobacco Survey".

The Centre, within the framework of the editorial plan of the NIPH in education towards health, has produced 9 leaflets, 10 booklets, 4 posters, as well as 1 video-film, and ran the distribution and lend-out of video-cassettes.

Last but not least are activities directly requested by the Ministry of Health. In connection with the change in concept and structure of the HEM branch at the Ministry of Health of the Czech Republic there has appeared a pressing need of current daily and informal collaboration. Through the Ministry of Health selected workers of the Centre, in the role of representatives of the Czech Republic, are participating in EC organs and as consultants from the Czech Republic at sessions of various EC working groups and in negotiations with EU commissioners. Extensive collaboration takes place namely in areas of the safety of cosmetics products, food contact material, toys, food additives, dietary foods, and crop protection products. The Centre processes the results of food and foodstuff testing. In that regard it is participating in the preparation of a new way of record keeping.

And finally, there is extensive communication of the Centre with representatives of the public media whereby the Centre fulfills another of its functions, and that is education to health in the population.

## **2.3 Centre of Environmental Health**

### **Expert Group on Water Hygiene + NRL for Drinking Water**

The predominant activity of the NRL is the providing of expert opinions, statements and consultations on problems of hygiene and analytics of drinking water and recreational water. In 2003, the number of written opinions exceeded 100, there were thousands of consultations and information given by phone. Within the framework of expert assessments of the safety to health of articles and chemical substances intended for contact with drinking water there have been evaluated around 50 products and substances. The Expert Group conducted 10 inter-laboratory comparative tests for water analysis laboratories.

A large portion of effort has again been devoted to the preparation of new legislation (amendment of Act 258/2000 Dig. and amendments of decrees 376/2000 Dig., 464/2000 Dig., 292/1997 Dig., etc.; further, the preparation of documentation for the authorization of laboratories) and new methodical regulations or recommendations of the NRC, including drafts of technical standards (for rehabilitation swimming pools, for the content of operation regulations on water supply, draft TNV 75717 on water quality – determination of blue-green plankton algae). At the close of the year, trained workers of the Expert Group have participated in the authorization of the first three laboratories in the role of auditors and major auditors.

An on-going component are methodological activities and postgraduate training regarding the whole public health service. There have been held 7 seminars, tutorial days and study visits for about 725 persons. Workers of the Expert Group held 50 lectures at various seminars and conferences in the Czech Republic and abroad, and published around 40 articles in professional journals. The Expert Group has a web site updated on an on-going basis for the professional as well as the general public.

From the research activities conducted within the framework of research intentions and an AVČR grant-supported project there can be named the assessment of the significance of novel indicators of water quality (*C.perfringens*), detection of legionellae in the network of warm utility water under various sanitation regimes, determination of the potential of disinfection by-product formation. The Expert Group continued (by holding a workshop, participation at two conferences, etc.) actively in the fulfilling of the European project “Web-based European Knowledge Network on Water” initiated in 2002. The Expert Group has also organized an international meeting on the subject of “Emerging Substances and Pathogens” (in drinking water) and has joined the international network of facilities that are systematically following up those problems (Network of Watchdogs).

### **Expert Group for Ambient Air Hygiene**

The content of professional activities was foremost the processing of expert opinions, health risk assessments, legislative activities, tuition, providing consultations, and inter-branch collaboration in expert groups. Within the framework of the requirements in Act

No.86/2002 Dig. on ambient air protection, there has been processed a series of reference concentrations for health risk assessments. An important component of activities was also the coordination, in the project of Population Health Monitoring, of the subsystem Monitoring of the Indoor and Outdoor Air in Relation to the Health of the Population, and evaluation of the obtained results. Expertise activities included expert judgements and a number of measurements of the outdoor and indoor air.

In the year 2003 there has been finalized the re-accreditation of the mobile measuring system at the Czech Institute of Accreditation with the addition of PAH determinations and sampling of particulate matter fraction PM<sub>10</sub> according to the ČSN EN ISO 17025 standard.

In the laboratory activities there can be included organizationally and professionally demanding activities such as:

- organization of programs of qualification testing – 8 have been organized in 2003;
- systematic follow-up of Prague ambient air pollution by mobile units;
- development of QA/QC procedures in the gas calibration laboratory.

In the section on research there can be included the continuing in research intentions of the Ministry of Health of the Czech Republic (Health risks from pollution in the ambient air), continuation of the Ministry for Environment grant project (R&D – Characterization of the load in the population of small towns with noxae from the ambient air, and ambient air pollution with bio-aerosols), continuation of collaboration in the grant-supported project of the Ministry for Environment (R&D- Determination of the effectiveness of measures for limiting ambient air pollution on the basis of lowering the negative effects of pollutants on components of the environment and on human health).

### **Expert Group for Hygiene of Soil and Waste**

The predominant activity of the NRL is the providing of expert opinions, judgements and consultations on problems of waste, namely regarding the risks in waste management, including the assessment of various waste management technologies and for the clean-up of old environmental burdens. Within the framework of expertise on assessments of the safety of products as regards health, there have been assessed 60 products. A component of its activities are clinical and microbiological analyses and eco-toxicological tests.

A portion of activities has been devoted to new legislation (Amendment of Act 185/2001 Dig. on waste, and Amendment of Ministry of Health Decree No.464/2000 Dig.) as well as preparation of documentation for the authorization of laboratories and of the new methodical instruction for the management of waste from healthcare facilities. The greatest part of those activities was the participation in materializing waste management plans in the area of minimizing health risks in waste management.

Within the framework of methodological activities there has been held a three-day course on the assessment of dangerous properties of waste, 2 tutorial days, and study visits for

about 280 persons. Workers of the Expert Group held 30 lectures at various seminars and conferences

in the Czech Republic and abroad, and published around 20 articles in professional journals. At the department there studied 3 pre-doctorate trainees, and 4 qualification theses have been elaborated.

There have been foremost studied microbiological hazards in research conducted within the framework of research intentions and R&D (Characterization of the load in the population of small towns with noxae from the ambient air, and ambient air pollution with bio-aerosols; R&D – Possibilities and ways of utilizing sludges and sediments from waste water treatment plants).

In 2003 there has also been conducted, in collaboration with respective Public Health Centres, the monitoring of soil in urban agglomerations in preschool facilities of selected cities.

The NRL has participated the eighth year in international ring rests conducted by the Department of Soil Science and Nutrition, Wageningen Agricultural University.

### **Expert Group on Indicators of Health**

There has been evaluated the final subproject of the HELEN study (determining the relation between health, lifestyle and the environment), and there has been started an overall evaluation of the first stage (data from 27 cities). Preliminary final results of the study in the years 1998-2002 have been presented at a nationwide conference on monitoring in Milovice and at a professional seminar held within the framework of the Expert Group's tutorial day. In the fulfilling of the research intention there has been assessed the influence of lifestyle and genetic factors, socio-economic factors and the environment on population health.

Commenced has been the materialization of the IGA MZ NJ/7386-3 grant-supported project "Risk factors of the appearance of incorrect posture in school children, prevalence of diseases of the locomotor system". The objective of the project is to obtain lacking pieces of information and valid information on the state of the locomotor system, bad posture, painful states of the spine and locomotory activities in school children, risk factors in the appearance of defects, and so to contribute to the improvement of primary and secondary prevention.

The grant project has been reported on at the nationwide conference "Ostrava Days of Hygiene of Children and Adolescents".

There have been processed results of the follow-up of allergic diseases in children from the year 2001 and presented at the Czech Association of Allergology and Clinical Immunology conference "Days of Asthma and Allergy 2003", and at the nationwide monitoring conference in Milovice and published in the journal "Alergie".

The Group participated in working on the Study of Exposure and the Population Load with Chlorinated Pesticides, Polychlorinated Biphenyls, Dioxins and Mercury in the Environs of Spolana Neratovice.

### **Expert Group for environmental noise**

The main activity of this Expert Group is the resolving of Project III – Health Consequences and Disturbing Effects of Noise. The monitoring of the health consequences and disturbing effects of noise includes the measuring of noise at selected localities of 21 cities in the Czech Republic. In those localities characterized by the just mentioned measuring of noise, there is also taking place a questionnaire survey of selected indicators of population health. The object of the already 10-year epidemiological investigation is the search of a causative and statistically significant relation between noisiness and selected indicators of health – followed up is foremost the incidence of the most serious civilization-linked diseases (hypertension, myocardial infarction, diabetes mellitus, tumor diseases, etc.), sleep disturbances, neurotic symptoms. In the past year there took place a questionnaire survey in 12,123 respondents. Within the framework of the research intention there has been studied the problem of whether sleep disturbance depends more on a continuous equivalent level of noise, or on separate noisy events against a more quiet background. It is fully adequate to express noisiness by the equivalent noise level when assessing sleep disturbances due to noise. Results were presented in June 2003, in Rotterdam at the ICBEN international conference on the biological effects of noise.

In the autumn there has been organized at the NIPH a Tutorial Day on Problems of Environmental Noise. The participants were acquainted with detailed results of the above-mentioned questionnaire survey. Further, at that occasion, there has been discussed the Amendment of the Governmental Decree 502/2000 Dig. and the draft on the assessment and lowering of noise in the environment, which transposes the respective EU directive into our judicial system.

### **Expert Group and National Reference Workplace for Genetic Toxicology**

The major activities in 2003 were in the resolution of Project 5 - within the framework of Monitoring, as well as 5 research projects within the framework of research intentions mostly focused on the follow-up of the toxic element load in the population, the follow-up of the saturation of the population with beneficial elements, and the follow-up of exposure to genotoxic substances in the environment. Another important activity of the Expert Group was the working on the EU grant project in the 5<sup>th</sup> Frame Program – Cancer Risk Biomarkers, as well as in the grant project of the Ministry of the Environment – Ambient Air Pollution and Environmental Protection. There has been carried out a preventive examination of the staff of the Temelín Nuclear Power Plant, materializing a governmental decision.

The problem of pollution of the environment through production activities at the enterprise Spolana Neratovice. There has been published a series of Standard Operational Procedures (SOP) for the biological monitoring of genotoxic factors in the environment for the Public Health Service (in AHM 3/2003).

An important part of the Expert Group's activities was the presentation of results at international conferences and in publications.

The laboratories have passed the process of re-accreditation.

## 2.4 Centre of Epidemiology and Microbiology

The Centre ensured the nationwide reporting of infectious diseases through the EPIDAT, ARO and ISBT programs; it participated in of the surveillance of infectious diseases, including immunization programs, methodical instructions, collaboration in legislature with the Ministry of Health of the Czech Republic in the area of infections. There have been prepared drafts of further surveillance programs in agreement with material of the WHO and requirements of the EU. In 2003 there have been completed, presented and published results of nationwide immunological surveys that provided information about the immunity of the population in the Czech Republic. On an on-going basis there have continued the WHO/EURO programs of polio and measles eradication.

The Centre worked on 19 subprojects within the research intentions of the NIPH, 11 projects supported by IGA MZ ČR, 2 projects supported by GA ČR, 15 EU projects, and participated in 1 prospective vaccination study.

Each month there has appeared the periodical "Zprávy CEM" (News from the CEM) in which there have been published the current numbers of reported cases of infectious diseases according to the data base EPIDAT, the numbers of epidemics, as well as commentaries by the Public Health Service. The periodical also brings contributions of topical interest by the heads of expert groups of the CEM, National Reference Laboratories at the NIPH CEM as well as elsewhere, and by specialists in epidemiology and microbiology in our country and abroad. The web site of the CEM has been modernized and unified with that of the whole NIPH. Besides basic information there are published weekly current topics from epidemiology and microbiology for the professional as well as the lay public.

At the Centre there have been operating three WHO Collaborating Centres (WHOC). The WHOC for Streptococci continued i.a. in worldwide collaboration in a prospective study aimed at the follow-up of the efficacy of a newly developed 11-valent conjugated pneumococcus vaccine for the prevention of otitis in small children. There has also continued collaboration in the project of the 5<sup>th</sup> EU Framework Program "Strep-EURO". The WHOC for TBC Bacteriology has participated in activities of three WHO working groups, the WHOC for Borreliosis Reference and Research has collaborated foremost on the problem of the geno-typing of strains of *B.burgdorferi* sensu lato that are endemic in our region.

All 24 NRLs of the Centre have successfully passes the annual supervision audit by the Czech Institute for Accreditation according to EM ISO/IEC 17025.

Within the framework of EQA ring tests there have been sent out 3376 parcels containing over 15 thousand samples that have been prepared at the CNCTC Collection and other National Reference Laboratories. Commentaries with graphic documentation have been published on the CEM web site.

As regards respiratory infections of bacterial origin, there continued the surveillance program of invasive meningococcus, streptococcus and hemophilus affections. All the strains sent by laboratories of clinical microbiology have been characterized by classical methods, and selected strains also by molecular biology methods. Further, there has been carried out multilocus sequence typing of meningococcal PCR products. There has been submitted to the Ministry of Health of the Czech Republic documentation for the updating of the anti-meningococcus vaccination strategy in the Czech Republic. There has been assessed the efficacy of Hib vaccination and followed up was any eventual failure of the Hib vaccine.

As regards the problem of viral respiratory disease, there continued the program of ARD surveillance within the framework of the Czech Republic as well as international cooperation in the framework of the EU and WHO, including the identification of influenza and non-influenza strains of respiratory viruses isolated in the Czech Republic and the testing of their antigenic characteristics. There have been prepared standard antigens and sets for rapid diagnostics of influenza and non-influenza respiratory viruses for all collaborating virological laboratories in the Czech Republic. The laboratories investigated clinical and autopsy material for healthcare facilities – in question was foremost material from suspect cases of SARS, the CEM having been entrusted by the Ministry of Health as the sole workplace with that task.

The occurrence of herpes viruses has been followed up in patients after transplantation of hematopoietic stem cells, as well as HHV8 infection in population groups under risk - patients with STD and homosexuals. Introduced has been the detection of HSV1 and HSV2 viruses by real-time PCR.

The CEM has been collaborating with the WHO even in the period of post-eradication of poliomyelitis in Europe. There is being monitored the occurrence of polio- and other enteroviruses in cases of flaccid paresis and other diagnoses.

There has been organized the surveillance of resistance to antibiotics in all clinically important bacteria in the Czech Republic within the framework of the European project EARSS. There have been introduced methods for the demonstration of certain specific genes of resistance, and molecular methods for the epidemiology of resistance. Under the guarantee of the J.E.Purkyně Czech Medical Association the CEM has participated in the elaboration of recommended procedures in the diagnostics and treatment of respiratory community infections and on the consensus in macrolide antibiotics application.

There have been conducted special immunochemical diagnostics of virus hepatitides A – E, and molecular biology diagnostics of hepatitides B, C, and D. There have been introduced new methods for the determination of HCV genotypes and for the detection of the TT virus. By sequenation analysis ther3e has been followed up the occurrence and distribution of HBV genotypes in the Czech Republic, the occurrence of clinically important HBV mutants in the immunodominant antigenic determinant of the surface antigen of the virus and in the pre-C region of the HBV genome.

In the problems of staphylococcus and intestinal affections of bacterial origin there have been diagnosed strains sent in from all the bacteriological workplaces in the Czech Republic, including the detection of factors of virulence. The information obtained helped i.a. in the elucidation of several epidemics of enterotoxicoes, mass occurrences of bullous

affections in newborns, as well as 10 cases of toxic shock syndrome. Collaboration has continued with the CHLC NIPH in the follow-up of multiresistant strains of salmonellae.

The main content of paid expertise activities of the Expert Group on Disinfection and Pest Control has been the verification of the efficacy of agents for protective disinfection, insect and rodent control as a component of their approval procedure in the framework of Act No. 120/2001 Dig. on conditions of introducing biocides on the market; further, the verification of sterilizers and the characteristics of indicators of sterilization, and the verification of mould liquidation procedures. In all, there have been elaborated 88 expert opinions attaining a profit of over 1.9 mln CZK.

Within the framework of the binding HIV/AIDS testing policy there has been introduced the testing of blood donors with 4<sup>th</sup> generation tests which shall improve the safety of blood products by shortening the false negative serological period (immunological window). There are continuously being carried out confirmation tests for the detection of HIV positivity for a network of 148 HIV testing laboratories. There are being performed molecular biology tests to reveal the HIV load in HIV-infected subjects with the aim of checking up on the effectiveness of anti-retrovirus therapy.

In the area of mycobacterioses there has been conducted genotyping of *M.tuberculosis* strains isolated in members of "socially problematic" groups in the population, and within the framework of an EU project there has been monitored the occurrence of multiresistant strains of mycobacteria.

As regards the problems of borreliosis there has been introduced a new method of hybridization PCR ELISA and there have been applied PCR tests for Light Cycler analyses of borreliosis and ehrlichiosis. The sequencing method contributed to the detection of serotypes difficult to cultivate, or of newly occurring infections (genera *Anaplasma*, *Ehrlichia*, *Brachyspira*, *Microsporidia*; virus agents). The Tissue Culture Unit supplied cells of 11 cell lines at a monthly average of 2 thousand million cells, mostly for the various units of the CEM and some other at the NIPH, as well as of the Public Health Service elsewhere. In parallel there is being kept a cell bank of over 55 cell lines.

Electron microscopy has been of great help in diagnoses from samples taken from suspect cases of SARS and a foreigner suspect of variola. Dozens of samples (foremost the stool, urine, bone marrow and CSF) were investigated for the presence of rotaviruses, calciviruses and other viral agents.

The workplace of the manager of the national HIV/AIDS program acted on instructions from the Ministry of Health of the Czech Republic.

## 2.5 Centre of Industrial Hygiene and Occupational Diseases

Activities of the Centre, in 2003, sprang from its tasks in the area of protection of health and safety at work, set in the valid legislation and the statute of the NIPH. As in previous years, attention has been focused foremost on industrial hygiene, prevention of occupational diseases, workplace health promotion, and the development of occupational

health care. The staff of the Centre numbered around 86 employees, and to that the scope of activities was adjusted.

On an on-going basis, the Centre carried out consulting and expertise activities over the whole range of occupational including occupational hygiene, physiology and psychology, toxicology and occupational diseases. Just as in previous years there predominated consulting activities for the Ministry of Health of the Czech Republic, organs of the public health service, employees, trade unions and other organs of the administration, including expertise activities for entrepreneurs. The overall number of rendered expert opinions reached 233 with a gain of 2,214,983.- CZK.

The Expert Group for a Draft of Tolerable Limits of Chemical Noxae in the Ambient Air at the Workplace proposed 14 new PEL or MPWL. Moreover, there has been carried out a revision regarding the PEL in one group of compounds – ketones. An ever increasing and very complex task represents the assessment of new technologies and processes in connection with GMOs and biocides. In 2003, there have been assessed 34 applications regarding GMOs.

Just as in previous years, a significant portion of the working capacity of the Centre's professionals has been diverted to the preparation of documentation for the administration at the Ministry of Health of the Czech Republic and in connection with the harmonizing with and the implementing of European law. In a number of legislative amendments there have been elaborated suggestions and drafts of text amendments. The Centre has actively joined in the preparation of decree No.288/2003 Dig. in which there are set work and workplaces forbidden to pregnant women, breast-feeding mothers, and mothers up to the end of the ninth month after childbirth, and adolescents as well as conditions under which adolescents may exceptionally do such work for reasons of preparation for their vocation. Professionals of the Centre have participated in preparations of decree No.432/2003 Dig. which sets the conditions for classifying types of work into categories, the limit values of indicators of biological exposure tests, the conditions of sampling biological for the performing of biological exposure tests, and of the reporting of work with asbestos and biological agents; they have also participated in the amending of governmental decree No.178/2001 Dig. in the wording of governmental decree No.523/2002 Dig. by which there are set conditions for health protection of employees at work. Further, there has been elaborated professional documentation to the amendment of governmental decree No.502/2000 Dig. on health protection against the unfavorable effects of noise and vibrations.

Very demanding was the work on amendments, commentaries and remarks on other legislative norms that are closely connected with the Centre's field of interest. A number of remarks have made their way into the following legislative regulations: Act No.356/2003 Dig. – on chemical substances and products and changes in certain other laws and to six of its new executive regulations. Remarks have been submitted on drafts of the Ministry of Health decree on the registration of chemical substances, the Ministry of Health decree on the method for the determination of toxicity of chemical substances and products, and the Ministry of Health decree on the procedure of assessing the risk of hazardous chemical substances to human health. There have also been elaborated remarks to the amendment of Act No.258/2000 Dig. on public health protection and changes in some affiliated laws and its new executive regulation – the decree on acquiring professional qualification for manipulation with chemical agents classified as highly toxic, as well as to the amendment

of Act No.120/2002 Dig. on the conditions of introducing biocides and active agents on the market and on changes in some affiliated laws and its new executive regulation – the decree listing identified and notified active agents in biocide products. There has been elaborated a methodical instruction on the determination of permissible exposure limits (PEL) and maximum permissible workplace levels (MPWL) of substances not listed in governmental decree No.178/2001 Dig. in the wording of governmental decree No.523/2002 Dig. determining conditions of health protection in employees at work and the procedure of categorization of jobs with occurrence of chemical noxae or dust, for which there has not been legislatively set any PEL or MPWL.

Within the framework of remarks to drafts of new legislation, the Centre participated in the elaboration of the final wording of the Draft of the Methodical Procedure of the Ministry of Health of the Czech Republic, for the determination of at least the medium degree of severity of the professional carpal tunnel syndrome, and in the draft for standardization of the procedure for verification of the conditions leading to the appearance of occupational diseases.

At the Centre of Industrial Hygiene and Occupational Diseases (CIHOD) there is being conducted a review of the standards that have whatever connection to the problems of health protection. The electronic file presently has 15,770 review notes of Czech standards (ČSN). They cover the whole area of the problems worked on at the National Institute of Public Health (NIPH) and a part of those dealing with safety at work and fire protection.

The Centre of IHOD is a WHO Collaborating Centre for Industrial Medicine. The WHO has confirmed the re-designation of the Centre for another five years, and the Centre has actively joined the Program of Worldwide Research in Industrial Medicine coordinated by the WHO.

In the year 2003, the National Health Register of Occupational Diseases processed by the CIHOD has been connected to EUROSTAT through the subsystem European Occupational Diseases Statistics (EODS). In this connection it is necessary to put into practice the harmonization of our procedures in collecting and processing data on occupational diseases with those established in the EU. New measures shall be included in the Methodical Instructions for Filling-in of the Form for Reporting Occupational Diseases, the amendment of which was initiated by the staff of the Centre, who participated in its preparation.

The Centre is also the national contact point of the International Program of Chemical Safety (IPCS). In the framework of that authorization it is actively participating in the preparation and evaluation of documents of that program (EHC, CICAD).

At the Centre there is also operating one National Reference Centre and six Reference Laboratories.

Workers of the Centre, members of the Registry Board of the Public Health Information System “Categorization of Jobs and Workplaces” have collaborated in the materialization of the IVth stage of the information system, updating data in the system according to amended legislative measures and including newly negotiated PEL and/or MPWL in numerical listings. Within the framework of that system there také place vast consulting activities for workplaces in the field, for the Ministry of Health as well as units of the

NIPH. In the System of Monitoring Health and the Environment, the Centre coordinates all four projects focused on relations between the environment and health.

The year 2003 meant preparations for authorizations. The staff actively participated in the preparation of authorization sets, instructions and other documents.

In collaboration with the occupational diseases section of the Association of Industrial Medicine of the J.E.Purkyně Czech Medical Association and with the Department of Occupational Diseases at the University General Hospital and the First Medical Faculty, Charles University in Prague, the Centre has participated in the organization of Tutorial Days of the Expert Commission for Assessing Occupational Diseases. Workers of the Centre are specialist consultants of that commission.

In the year 2003 there continued successful work on research subproject intention No.4 "Health risks of exposure to factors of the working environment". Workers of the Centre have worked 11 IGA MZ ČR grant projects, 5 GAČR grant projects, 1 Ministry of Environment project and 2 Ministry of Education grant-supported projects. In 2003 there have been finalized 2 IGA MZ ČR projects, both appraised as belonging to Category A. There have also been worked three international projects: In 2003 there has been successfully finished the project "Safety and protection of health at work in small and middle-sized enterprises" within the framework of the program Working Life and EU Enlargement, which was supported by the Swedish Government.

Activities of the Centre have been also projected in the fulfilling of the program Health 21 – "Protection of Health of the working population and the maintenance and improvement of its working capacity". Motivation of the employees and the management of enterprises for tasks of Safety and Health Protection at Work are the major goals of the Centre's engagement in that program. For the project An Enterprise Promoting Health there has been prepared a draft of criteria for assessing health promotion at the workplace. The criteria are based on requirements of the ENWHP (European Network of Workplace Health Promotion) and on requirements of Czech legislation in the field of protection of health at the workplace. Simultaneously, preparations have begun on a study in two selected enterprises for the verification of the above-mentioned criteria.

The staff of the Centre has participated in postgraduate training not only in occupational medicine but also in other disciplines (neurology, general medicine, toxicology, etc.), namely in the form of lectures and courses. The Centre also provides professional practice for students of the healthcare secondary school. Experts of the Centre participate as consultants in qualification theses of students for the state exam in preventive medicine.

In the year 2003 there have begun preparations of external postgraduate courses in occupational medicine for general practitioners, which should take place in the second half of the year 2004.

The Centre has held, together with the Society of Occupational Medicine of the J.E.P. Czech Medical Association, regular seminars foremost for workers in the field, and ensured the organization and professional program in three traditional events: Teisinger's Day, Beno's Day, and Day of Industrial Neurology. Workers of the Centre were the organizers of the 8<sup>th</sup> Interdisciplinary Czecho-Slovak Toxicological Conference in Prague,

held September 3-5, 2003, attended by about 90 participants. The contributions at the conference will be published in the Central European Journal of Public Health.

At the Centre there is also the seat of two journals: *České pracovní lékařství* (Czech Occupational Medicine) and *Homeostasis in Health and Disease*.

## 2.6 Centre for Quality Control and Management in Health Care

The Centre is the methodological and information basis for the materialization of programs of the follow-up of quality and effectiveness of health care, connected with accreditation of healthcare facilities. Programs of quality and efficiency, in view of their dynamic development, are worked on projectwise. Coordination of “Quality Promotion Projects” in health care of the Ministry of Health. In the year 2003 there have been coordinated the following projects:

- 1 – Quality and efficiency of intensive care.
- 2 – Quality control in regional health care.
- 3 – Methodology of quality control in regional health care.
- 4 – Options of implementing strategies of clinical effectiveness in a hospital and implementation of a model of good quality management in a hospital.
- 5 – Implementation of standardized methods of measuring the quality and efficiency of care as a component of the process of complex increase in quality in connection with the system of accreditation of healthcare facilities.
- 6 – The modular system of quality assurance in health care.
- 7 – Critical assessment of healthcare technologies (HTA) – application of HTA data sources.
- 8 – Quality through the eyes of a patient.
- 9 – Monitoring of nosocomial infections and managing epidemiology in healthcare facilities.
- 10 – Directives for good laboratory practice and quality assurance in molecular biology laboratories.
- 11 – Implementation of the quality system according to the ISO 9001:2000 standard in public health facilities and healthcare institutions.
- 12 – Implementation of recommended procedures for general practitioners as an instrument of systematic improvement of quality in primary care.
- 13 – System for visualizing oncological data (software SVOD) – multi-diagnostic, indiscriminately accessible version.
- 14 – Technological and model materialization of standardized protocolar clinical registration in oncology (assessment of quality and effectiveness of oncological care).
- 15 – Influencing the quality of antibiotics application with the aim of control of resistance in bacteria to antibiotics.

Presently, there is under way the external examination of the Centre’s final reports on the individual projects. Upon approval of the outlets of those projects and their approval by the Conference of the Management at the Ministry of Health of the Czech Republic, there shall be accessible detailed information on those projects and the outlets at <http://www.szu.cz/CeKZ/> in static form; and when there shall be in operation the “QMS Quality Server”, also in a form rendering possible further on-line utilization of outputs of the mentioned projects by healthcare subjects in the Czech Republic.

Another major task of the Centre for Quality in Health Care (CQHC) is the presentation of information regarding quality and safety in health care and outputs of the “Health promotion Project” for the professional and lay public. Workers of the CQHC have held in the course of the year a number of lectures and presentations at the local, national, and international levels. In the year 2003 there has been organized the first seminar of regional representatives who are responsible for regional healthcare problems with the objective to present the Centre, its potentials and objectives, and to map the needs in the Regions, which the Centre can help in filling. Representatives of 9 Regions have attended. At the close of 2003 there has been in preparation an information bulletin of the Centre, which shall be sent out to healthcare institutions and other professionals involved in quality in health care, focused on novelties and topics of interest regarding quality in health care. Its component shall also be current references on interesting information sources in the area of interest. Within the framework of the program “National Policy of Quality Promotion” the Centre is one of the members of the managing committee of the program “Czech Quality”.

An important component in the work of the Centre is international collaboration, namely with the European Foundation for Quality Management – EFQM, the European Society for Quality in Healthcare – ESQH, the International Society for Quality in Healthcare – ISQua, the International Society for Assessing Healthcare Technologies – HTAi, the Central and Eastern European Society for Assessing Healthcare Technologies – CEESTAHC, the International Network of Agencies for Assessing Healthcare Technologies – INAHTA, the World Health Organization – WHO, G-I-A (Guidelines International Network), and others. The CQHC has collaborated in the twinning project Finland – Czech Republic, mapping potentials in the application of Finnish experience (the organization STARES) of applying the model of excellence EFQM in health care. In the year 2003 the Centre has joined international projects working on problems of continual quality improvement in health care in the framework of the 5<sup>th</sup> and 6<sup>th</sup> EU framework programs:

- Thematic network of collaborating organizations “Exchange of knowledge on research methods to assess Quality Management in healthcare organizations in European countries, in relation to the National Quality Policy in each country” coordinated by the Nivel Foundation, Netherlands. In question is a research project included in the 5<sup>th</sup> EU Framework Program in which participate England, the Netherlands, Denmark, Poland, Lithuania, Hungary, Germany, and the Czech Republic.
- The project for the 6<sup>th</sup> EU Framework Program called “Unified Central and Eastern European surveillance/monitoring system for healthcare quality and efficiency indicators” in collaboration with DG Sanco, the participating countries being Slovakia, Poland, Hungary, and the Czech Republic.

Further, the Centre has received the opportunity to collaborate in the project Improhealth, coordinated by the Technical University Košice in the framework of the EU program Leonardo da Vinci. The principle project is the creation of a e-Learning course focused on the improvement of the quality and efficiency of health facilities. Five countries are participating – Slovakia, Finland, Greece, and the Czech Republic.

The Centre is participating in the holding of the international conference 1<sup>st</sup> Annual Meeting HTAi 2004 (see also [www.htai.org](http://www.htai.org)) on the critical assessment of healthcare technologies “Health Technology Assessment” which takes place in Krakow, Poland, May

31 through June 2, 2004. The exclusive rights to hold this important international event has the Visegrád grouping of countries. The CQHC represents the Czech Republic at that conference.

### **Activities of the Department for Assessing the Quality of Laboratories and Workplaces (DAQ)**

The Department collaborates with the Ministry of Health in the working out of a concept of the quality and efficiency of healthcare services in agreement with EU requirements. In collaboration with the Consulting Body for Laboratories of the Chief Public Health Officer and with Reference Laboratories there have been elaborated the “Conditions for granting accreditation according to Act No.258/2000 Dig, on the protection of public health in the wording of consecutive regulations” and prepared all documentation, publications and training courses for the assuring of audits in laboratories. For informing the public there has been put in operation a web site covering all information needed for the preparation of laboratories for authorization and the authorization process as such. There have been accepted 19 applications for authorization, in which there has begun verification of their fulfilling of conditions for authorization.

In connection with the revision of Act No.258/2000 Dig., and in connection with the entrusting of the NIPH to authorize workers conducting the assessments of health risks, there have been amended the “Conditions for granting authorization”, prepares 2 courses, and processed the methodology of authorizations.

There has begun the methodical preparation of laboratories for accreditation in agreement with requirements on good quality services provided within the framework of health care. There has been prepared a register of laboratories participating in those preparations.

The Department has also joined in on working task No.16 of the EU and WHO program “Health 21 – Management in the interests of good quality care”, to which there is being prepared a draft of indicators of performance and quality (MBDS – Minimum Basis Data Set) after the validation of which they shall be submitted to the Ministry of health for declaration as National Indicators.

The Department collaborates with the Institute of Standards of the Ministry of health and the Czech Metrological Institute in the preparation of metrology in the area of chemical and biological measuring in harmony with the requirements of European metrological institutions.

Within the framework of the national policy of quality promotion the Department has joined in the preparation of a national register of consultants in quality management systems and other managements.

The workers of the department have provided their active participation at a number of seminars relating to programs of quality in the branch of health care, namely not only in the area of protection of public assessment but also in health care, clinical laboratories, metrology, and healthcare informatics. Within the program of authorization of laboratories there have been organized training events for those interested in authorization and auditors. In the case of authorizing workers assessing health risks there have been held 2 courses which are part and parcel of the authorization process as such.

Within the framework of keeping the agenda of inter-laboratory comparative testing (ILCT) or external quality assessment (EQA) there has begun collaboration with external parties interested in organizing ILCT in the area of public health protection and preparation of a unified processing of results and editing of final reports according to ISO Guide-43.

## **2.7 Department of Veterinary Services**

The major task of the DVS – the ensuring of conditions for the work of experimenters working with laboratory animals, has been fulfilled. Purchase of laboratory animals in the whole range of required species, breeds and strains has been provided, although in certain deliveries there continue to be problems in the capacities of suppliers. The problems of housing laboratory animals, purchase of diet rations, pharmaceuticals, litter bedding, and the implementation of individual technological elements, were resolved to the satisfaction of experimenters. The spatial and staffing capacities of the DVS have been exploited.

In the year 2003 there have continued check-ups on the health of laboratory animals in the firms Velaz Ltd., Bio Test Konárovice Ltd., and Semed, which together with the check-ups on the health of laboratory animals at the breeding facility of the NIPH, have continuously ensured the good health of the laboratory animals in experiments conducted at the NIPH.

For reasons of lack of housing capacities for certain animal species at individual periods of time over the past year, there had to be adjusted with the experimenters the terms of some follow-ups to later dates.

The decisive step for the approval of further activity of the user and breeding facility of the NIPH was the passing through the accreditation procedure with a positive outcome.

Following preparatory activities there took place a missionary investigation in buildings No. 5, 6, 23 and 31; and the “Central Commission for Animal protection of the Ministry of Agriculture” decided to grant a second accreditation for a period of five years.

In view of the unstable capacity of suppliers of laboratory animals in filling consignments of laboratory animals, the changing requirements of experimenters, and the variable levels of health in the breeds of the supplying companies, the required laboratory animals, with singular exceptions, were purchased from Velaz Ltd., Charles River – ANLAB Ltd., and Bio Test Ltd.

The key task was to ensure the meeting of the Czech National Council Act No.246/92 Dig. on the protection of animals against cruelty, the materialization of Ministry of Health Decree No.311/97 Dig. on the breeding and exploitation of experimental animals, and the materialization of Act No.166/99 Dig. on veterinary care (the so-called Veterinary Act).

Thanks to an increased budget for the DVVS in 2003, there have been resolved some long-term shortcomings in the supplementing of technological items (expendable material), and there has been made a further substantial step in the supplementing of building No. 31 with furniture as well as with technological equipment from investment means.

In 2003, at the DVS there have been carried out 134 autopsies of laboratory animals, namely 55 diagnostic autopsies, 38 in the framework of check-ups in supplier farms, and 41 for a research project.

Of the 141 autopsied animals, 115 (85,8 %) have been examined histologically. From those animals there have been processed 648 samples of organs. By the method of direct electron microscopy there have been examined 18 samples from 6 autopsied animals for the presence of virus particles (in collaboration with RNDr. J. Schramlová, CSc. from the Centre of Epidemiology and Microbiology).

Fifty-four laboratory animals have been investigated bacteriologically. Cultivation was performed from 258 organs.

Parasitological investigations were performed in 69 (51.4 %) autopsied animals, namely in 31 diagnostic necropsies and 38 check-ups of health.

Serological investigations were carried out in 53 serum samples from mice (37 check-ups on breeds of suppliers, 16 from the NIPH facility) and 23 sera of laboratory rats from supplier breeds for the presence of antiviral antibodies with the aid of the ELISA method.

## **2.8 Scientific Information Centre**

In 2003 most activities of the Scientific Information Centre (SIC) were connected with finishing Project LI 002026 of the Ministry of Education, Youth and Sports: „Information sources for care for healthy living conditions and health protection and promotion". In agreement with the aims of the project, i.e. to facilitate integrated access to the NIPH library information resources and publishing and editing activities, the SIC web pages were updated and the online library catalogue started to be operational again. The SIC staff was also involved in redesigning the NIPH web pages.

In the middle of the year, the standard library information system (KIS) was converted to advanced KP-win: the necessary data conversion was performed and the interface access to the online catalogue was provided. Further conditions to be met and activities to be done for the intended interconnection of the NIPH library information system (KIS) with the system MEDVIK (virtual medical library of the Czech Republic) were analyzed on an ongoing basis.

Throughout the year, statistics related to accesses to fulltext databases and users' experience gained within the national and consortial licenses in the past 4 years were evaluated and conditions for joining new consortia were analyzed. Online journals from these databases to be accessed in 2004 - 2008 were listed.

In 2003, a regular stock (87 thousand library items) revision started, with a focus on the stock relevance and up-to-dateness.

In 2003, the SCI staff provided library-information, editing, reprographic and photographic services to researchers of the NIPH, National Radiation Protection Institute, Third Medical Faculty of the Charles University, Regional and District Public Health Centres and users of public information services of the healthcare and other sectors. The services provided to both the NIPH staff and extramural users are summarized on the SIC homepage at <http://www.szu.cz/svi/index.html>.

## **I. Activities of the library**

The library stock was systematically supplemented with the entire domestic book and journal production in relevant fields and selected titles from other countries. These items were generally acquired by purchase and partly also through international exchange and as gifts from the WHO and the U.S. Library of Congress. In 2003, 2,653 library items were newly added to the library bookstock reaching a total of 87,077 library items. The library was subscribed to 346 journals of which 163 were domestic and 183 from other countries. The latter were entered on an on-going basis into the comprehensive catalogues of the National Medical Library and the National Library of the Czech Republic. The purchases for the library stock amounting to 5,586 thousand CZK were covered from the SIC budget, NIPH grant projects, LI project of the Ministry of Education, Youth and Sports, funds for the development of the Public Information Service on Health Care, and EU funds .

A total of 29,987 library items were borrowed. As many as 1,634 interlibrary loan requests and 534 international interlibrary loan requests (including those to the JASON and SUBITO services) from the NIPH staff and 1,047 requests from co-operating libraries (8,382 photocopies provided) were met. Rapid information contents service was provided from 13 journal titles to 16 organisations. A total of 51,066 photocopies were made.

## **II. Documentation, information, and translation services**

In 2003, 850 retrievals were performed of which 176 were continuous. Ten retrievals were farmed out. As for Internet sources, the bibliographical and full-text databases available through national and consortial licenses were most frequently used. On users' request, 396 regulations on 2,294 pages were retrieved from the Official Journal of the EC, L and C series.

Vol.10 of the NIPH Bibliography 2001/2002 including 459 records of which 130 reportable to the Information Registry of Results (acronymed RIV) that makes available publication data related to research and development projects and research plans supported by public funds. For the ILO-CIS Bulletin, 20 annotated references of articles with abstracts in English were submitted. As many as 2,207 articles from five dailies were processed for the database of daily newspaper monitoring. The outputs from the database were used not only at the NIPH but also within the electronic conference "Healthy Cities" and were displayed on a daily basis at the healthcare server <http://www.zdrav.cz>.

A total of 911 pages to be published or otherwise presented were translated, mostly into English, and 1,045 pages submitted in English were revised. Language consultations were provided to the NIPH staff on an ongoing basis.

## **III. Activities of the Section of Journal Editing and Photo Documentation**

The journal *Acta hygienica, epidemiologica et microbiologica* (AHM) has been published for use of the Public Health Service. Six regular AHM issues and one supplement issue, the NIPH Bibliography 2001/2002, appeared in 300 - 700 copies. AHM full texts have been available on the SIC homepage. The Central European Journal of Public Health (CEJPH) has been printed in 400 copies; four issues and one supplement appeared in 2003. The SIC ensured a part of the editing activities and the whole subscription service. The CEJPH was submitted for assessment for suitability for inclusion into databases Thomson - ISI in Philadelphia, the instructions to authors were extensively updated including bibliographic citations that have to be conform to the Vancouver Style as recommended by the International Committee of Biomedical Journal Editors.

Other SIC activities included distribution of journals and legal deposits, order receipt, obligatory supply service, ISSN allocation and farming out such services as printing, binding of books and journals and photo documentation.

The NIPH copy service made 271,685 copies.

## **2.9 Department of Biostatistics and Informatics**

The staff collaborated on experiments design and data analysis and interpretation within long-term research projects, grant projects and other studies. They also provided consultations to researchers from the NIPH, Public Health Service and other health care organizations, created software tools as required by different centres, provided graphic presentation of results, designed electronic devices and organized training courses in the use of statistical methods for the NIPH researchers.

In 2003, the staff were involved in publication and lecturing activities and design and evaluation of the following monitoring projects: Questionnaire study monitoring population health indicators, Study of allergy prevalence in children, Selected demographic data processing, Statistical analysis of air pollution and problems with 3D pollution modeling, Evaluation of skin irritability, Sewage sludge management, Comparison of trends in noise exposure between the localities measured, Lung function testing in relation to asbestos risk, 3D estimate of emission burden in smaller settlements based on modeling of time-space data from short-term measurements by mobile stations, etc. They estimated dynamics of the local mold burden in a small settlement based on evaluation of data collected in successive campaigns of microbiological measurements. They created a statistical model for body growth monitoring in children and evaluated comparative studies of standard and alternative laboratory methods for detection of selected groups of microorganisms.

Furthermore, the staff were involved in operation of EpiDat2003 software system and design of EpiDat2004, design and operation of the NRL AIDS information system and the serum bank operation and control.

They participated in activities of the advisory board for informatics of the Chief Public Health Officer of the Czech Republic, including design and administration of the registries operated within the Coordination Centre for Sectoral Health Care Information Systems (Job categorization, Acute respiratory infections (ARI), Pandemics and EpiDat data transfer) and enlargement of the ARI registry to include influenza-like illness (ILI).

All NIPH computers were audited for software license compliance by the IT staff who also cooperated in central purchase of all hardware and software including installation and modification of the latter on an individual basis, provided basic maintenance of computers and consultations on PC operation. Specialized software was ordered within the MICROSOFT SELECT agreement. Administration of the NIPH computer network and mail, web and antivirus protection servers, including the operation and development, was also part of the staff activities. Conversion to higher speed Internet access (6Mb) was completed, a virtual private network was created for the participants in Prague and Brno, and the use of the computer network for the purposes of the time and attendance and safety systems of the NIPH in Prague was enabled.

In 2003, the NIPH optical backbone network was enlarged to include building 23 and porter's lodges and updated as needed.

In 2003, the staff were involved in the following grant projects:

- “6<sup>th</sup> nationwide anthropological survey of children and adolescents 2001” of the Grant Agency of the Ministry of Health of the Czech Republic
  - “Social support as an important protective factor” of the Grant Agency of the Academy of Sciences of the Czech Republic
  - “Research and development of reference materials human urine, mandelic acid and phenylglyoxilic acid” of the Internal Grant Agency of the Ministry of Health of the Czech Republic
  - “Prediction model for acute toxicity estimate of mixtures of chemicals” of the Grant Agency of the Czech Republic
  - “Alternative method for acute toxicity determination of chemicals and acute toxicity estimate of their mixtures” of the Grant Agency of the Ministry of the Environment of the Czech Republic
  - Research subproject IV Health risks from exposure to occupational factors
  - “Detection of type of ventilation disorder and benefit of CT diagnosis in asbestos induced pleural lesions” of the Internal Grant Agency of the Ministry of Health of the Czech Republic
  - “Psychosocial health determinants” of the Grant Agency of the Czech Republic
  - “Multipurpose immunological survey” of the Internal Grant Agency of the Ministry of Health of the Czech Republic
  - “Biological monitoring and health risk from occupational exposure to MDI” of the Internal Grant Agency of the Ministry of Health of the Czech Republic
- etc.

## 2.10 Economics division

### Costs and profits

#### *Profits*

In 2003, the total profit budget of 348 056 thousand CZK was increased by 55 476 thousand CZK to amount to 403 532 thousand CZK. It was fulfilled 106.4 % to total 429 724 thousand CZK.

In 2003 the established annual profit budget without the contribution of 30 000 thousand CZK was increased by other profits amounting to 3 178 thousand CZK (i.e. funds for grant co-applicants) and an overbalance of 385 thousand CZK (i.e. foreign grants and donations) to amount to 33 563 thousand CZK. It was fulfilled 178.04 % to total 59 755 thousand CZK. Of this, receipts from service sales were 48 387 CZK, fines and penalties amounted to 6 thousand CZK, interests from current accounts were 499 thousand CZK, fund balance was 8 385 thousand CZK, other profits were 2 464 thousand CZK and receipts from sales of both corporeal and incorporeal property were 9 thousand CZK.

The established annual contribution of 318 056 thousand CZK was increased by 51 913 thousand CZK, i.e. by 46 119 thousand CZK from special-purpose funds from the Ministry

of Health and 5 794 thousand CZK from grant agencies. The annual contribution to December 31, 2003 totaled 369 969 thousand CZK.

### *Costs*

The established annual cost budget of 348 056 thousand CZK was adjusted during the year depending on the increase in the established annual contribution, other profits (funds for grant co-applicants) and overbalance (foreign grants and donations). The budget was increased by the following items: 2 000 thousand CZK to meet the liabilities resulting from the conclusions of the Melk process, 690 thousand CZK for scientific and medical information, 8 320 thousand CZK for the National HIV/AIDS Program, 500 thousand for the National Quality Promotion Program, 3 132 thousand CZK for the National Health Program, 4 815 thousand CZK for the EU accession preparatives, 13 976 thousand CZK for the Internal Grant Agency projects, 13 670 thousand CZK from the Internal Grant Agency for research plans, 3 989 thousand CZK for projects of the Grant Agency of the Czech Republic, 388 thousand CZK from the Grant Agency of the Czech Academy of Sciences, 2 092 thousand CZK from the Grant Agency of the Ministry of Education, Youth and Sports, 359 thousand CZK from the Grant Agency of the Ministry of Agriculture, 1 160 thousand CZK from the Grant Agency of the Ministry of the Environment, and 385 thousand CZK for foreign grants and donations. The increased annual cost budget totaled 403 532 thousand CZK and was used 101.33 %, i.e. 408 879 thousand CZK (5 000 thousand CZK of this was income tax advance payment).

### *Economic result*

The economic result in 2003 was +20 845 thousand CZK.  
Total capital costs in 2003 were 12 803 thousand CZK.

## **Investment grants allocated by the Ministry of Health of the Czech Republic in 2003**

Project title: Rehabilitation of building 20  
Registration number: 235 012 0003

Systemic grant of 3 200 thousand CZK was used as follows: 200 thousand CZK for the design and 3000 thousand CZK for the design implementation. The project was stopped as the grant was used up. Sixty-three thousand CZK and 2 656 thousand CZK were drawn from the NIPH own funds to cover the design and its implementation, respectively.

The rehabilitation will be continued in 2004 and will be covered from the NIPH own investment funds.

Project title: Conversion of a part of building 4 ground floor to protected laboratory BL 3.  
Registration number: 235 012 0002

A total of 1 297 thousand CZK from the systemic grant of 1 300 thousand CZK was used up. The project will be finished in 2004 with technology supplies amounting to 9 420 thousand CZK.

Project title: Apparatus renewal  
Registration number: 235 012 0001

A systemic grant of 1 064 thousand CZK was used to purchase a class II laminar flow biohazard hood for the department of veterinary services: it was needed to achieve compliance with EU regulations and good laboratory practice as required in the new Pharmacopeia of the Czech Republic. A data/video projector was needed for the large lecture hall to improve quality of presentations at conferences and workshops organized at the National Institute of Public Health and a car Octavia combi was purchased to partly compensate for non-operational vehicles and to improve quality of transport services.

Project title: Additional equipment for nucleic acid sequencing and genetic analysis  
Registration number: 235 223 0008

Instruments and devices for processing samples to be sequenced were purchased in order to enhance the full use of the sequencer for detection of new and unknown microbial agents bought in 2002 from the state budget. The following items were newly purchased: cooling desk centrifuge, PCR thermocycler, DNA concentrator, documentation system and digital analytical scales.

Project title: Biohazard hood, autoclave, ultracentrifuge  
Registration number: 235 335 0006

The allocated grant was used to purchase the apparatuses listed above and needed in laboratories for processing materials containing different unknown or new viral and bacterial agents for the purposes of biological protection of the population.

Project title: Update of manual measuring stations for air quality monitoring  
Registration number: 235 334 0001

The allocated grant of 2 959 thousand CZK was used to update the manual measuring stations for air quality monitoring to allow collection of valid air quality data for the needs of population health monitoring and health risks management.

Project title: Laminar flow biohazard hood  
Registration number: 235 332 0008

A new laminar flow biohazard hood was purchased at a cost of 279 300 CZK in replacement of the old one which was not certified and thus was unsuitable for use in the accredited National Reference Laboratory for HIV/AIDS.

Project title: NIPH library software equipment  
Registration number: 235 021 0006

The grant allocated within the program “Development and renewal of the material and technical basis of national medical libraries” was used to purchase an automated library system Kp-win client.

In February 2003, the NIPH Director appointed an investment commission the members of which are representatives of the NIPH centers. This commission is a permanent director’s advisory board that submits investment proposals, including emergencies, to be

covered from the NIPH own funds. In 2003, the commission met six times. The investment items including those the purchase of which is in progress are listed in the table below.

List of investment items covered from the NIPH own funds in 2003		
Investment item	Number	Total in thousands CZK
Grant contributions for apparatuses	3	456
Contributions to cover projects of the Ministry of Health Of the Czech Republic		1 100
B 20 rehabilitation design		36
B 7 electrical rewiring		999
Backup source BL3 in B4		
Aviary near B 20 (advance paid)		165
NIPH physician surgery in B19 (design + implementation)		331
Surgery equipment (ECG)		101
Sensory laboratory for the needs of the NRC for plastics		138
Time and attendance system		1 025
Camera monitoring system		386
Access systems in B 7, 11, 23 (advance paid)		55
Apparatus equipment for provisional laboratory BL3		1 941
Passenger cars	3	1 493
Garden tractor	2	664
Copier	1	190
Finalization of the NIPH computer network		787
Personal computer	2	155
Duplex laser printer	1	47
Notebook	5	297
Data projectors + lecture hall connection	2	334
Replacement of network servers in the Centre for the Hygiene of Food Chains in Brno		750
Server and data provider for payroll and personnel system		676
Payroll and personnel system upgrade (advance paid)		263
Statistical software	1	159
Sewer line-cleaning device	1	58
Electrodynamic vibrator (advance paid)	1	621
Laboratory glassware washer	1	428
Automated pourer	1	678
Autopreparator with accessories	1	481
Laboratory air conditioner	4	285
Climatic chamber	1	460
Water treatment device	1	385
Laser particle counter	1	565
Class II biohazard hood	4	932
Automated microplate washer	2	315
UV-VIS double-ray spectrophotometer	1	462
UV-VIS mono-ray spectrophotometer	3	476

AMA mercury analyzer	1	426
UV radiometer	1	186
Cooling centrifuge	2	732
PCR thermocycler, dual system	1	520
Apparatus equipment update		3 345
Total		25 169

## Technical division

In 2003, the staff of the technical division was responsible for farming out investment construction, rehabilitation and repairs and for in-house maintenance and energy management.

### *Construction investments*

In 2003, conversion of a part of building 4 ground floor to protected laboratory BL3 (class 3 bioprotection) to be covered from the state budget (with 1,297 thousand CZK allocated) continued. The conversion will be finished in 2004 with technology supplies amounting to 9,420 thousand CZK.

Rehabilitation of building 20 started with a state grant of 200 thousand CZK for the design and 3000 thousand CZK for the design implementation. Sixty-three thousand CZK and 2 656 thousand CZK were drawn from the NIPH own investment funds to cover the design and its implementation, respectively. The rehabilitation will be finished in 2004, requiring 6 million CZK from the NIPH own investment funds.

The NIPH own investment funds were used to cover the following items:

- establishment of a NIPH preventive health care surgery in B19;
- electrical rewiring in B7;
- back-up source for B4;
- start of implementation of access systems in B7, 11 and 23;
- vehicle entry control at the main porter's lodge and camera monitoring systems in B 1 and B 6;
- starting assembly of a new aviary next to B 20 to replace the existing one near rehabilitated B 6.

### *Farm out repairs*

The farm out repairs totaling 13 million CZK included the following major items: B6 façade and roof repair including the adjacent pavement and other pavements in front of B5 and B 11, removal of the chimney that used to be part of the former boiler house and was not operational any longer, repairs in some laboratories, e.g.:

- for the National Reference Centre for Plastics in B 11 (Centre of Health and Environment);
- for the research group for drinking water in B 5 (Centre of Health and Environment);

- ground-floor offices in B 5 for the Centre of Health and Environment;
- etc.

Repairs of apparatuses, devices and tools for the NIPH centers were provided at a total cost of 5.8 million CZK.

### **Culture media preparation and laboratory glassware washing services**

#### *Activities*

Culture media preparation service provides culture and diagnostic media, biochemical tests, buffers and biochemistry solutions as required by laboratories. This service archives media formulas and is involved in development of new media.

The laboratory glassware washing service washes and sterilizes laboratory glassware and decontaminates, separates and packs infectious wastes to be transported for incineration.

In 2003, the culture media preparation service of the Centre of Microbiology and Epidemiology and that of the Centre of Health and Environment merged into one and so did 4 laboratory glassware washing services of B 11 and B 2A to be integrated into the Economics and Technical Division.

The staff of culture media and washing services are 24.

The following items were purchased for these services from the investment funds:

- Steam sterilizer Stericell 404 Standard with accessories
- Autopreparator S 8000 with automated pourer APS 300/90, automated single door washer, disinfectant and dryer G 7883 CD with accessories.

These devices helped reducing manpower and providing higher performance and standard and higher quality service. After the sterilizer and automated washer were purchased, the approval process took place relating the use of premises 2A.

In 2003, the two culture media services supplied about 70 000 agar plates, about 45 000 tube media and tests and about 1 300 l of other media and solutions of different formulas. The washing services supplied about 100 000 sterile test tubes, 50 000 pipettes and more than 8 000 other laboratory glassware items. About 15 tons of infectious wastes were processed.

### **3. Education and age-structure of employees**

In 2003, the Institute employed a total of 725 workers. Of these, 365 were graduates, 365 had secondary school education and 55 were educated to primary school level.

The high level of qualification amongst the employees is reflected by the fact that 91 of the university-educated staff held scientific or academic honours.

The age structure as a whole has shifted into higher age categories; this is to a large extent a consequence of the need for highly specialised and scientific qualifications.

Nonetheless, the personnel policy is aimed at lowering the age of the Institutes human potential.

### University graduates

Centre	MUDr.	RNDr.	Ing.	MVDr.	PhDr.	Mgr.	Bc.	Other	Total
EM	33	36	8	1	1	19	---	1	99
HPNP	27	14	15	---	2	13	1	---	72
HPŘ	---	4	10	5	---	4	---	---	23
HŽP	21	9	18	---	---	6	3	---	57
ZŽP	13	9	20	1	5	6	3	2	59
ŘKZ	3	1	3	---	1	1	---	---	9
OBI	---	3	7	---	---	---	---	1	11
SVI	2	---	3	---	1	5	---	1	12
OVS	---	1	1	6	---	---	---	---	8
ETÚ	---	1	10	---	---	---	---	---	11
ŘÚ	3	---	---	---	---	---	---	1	4
TOTAL	102	78	95	13	10	54	7	6	365

### Academic and university degrees

Centre	Prof.	Doc.	Dr.Sc.	CSc./Ph.D.	Other
EM	---	2	2	29	
HPNP	1	4	5	21	
HPŘ	---	1	---	3	
HŽP	1	1	1	11	
ZŽP	---	1	---	13	
ŘKZ	---	---	---	2	
OBI	---	---	---	7	
SVI	1	---	---	1	
OVS	---	2	2	1	
ETÚ	---	---	---	---	
ŘÚ.	---	---	---	3	
TOTAL	3	11	10	91	

### Secondary school – medical and non-medical personnel

Centre	Medical	Non-medical	Total
EM	70	12	82
HPNP	24	12	36
HPŘ	6	3	9
HŽP	24	3	27

ZŽP	27	9	36
ŘKZ	---	4	4
OBI	---	4	4
SVI	---	12	12
OVS	---	11	11
ETÚ	9	69	78
ŘÚ	---	6	6
TOTAL	160	145	305

#### Age profiles of NIPH staff: graduates and graduate managerial staff

All graduates	Age	Managerial
16	> 71	---
48	61 – 70	10
99	51 – 60	25
89	41 – 50	28
59	31 – 40	1
54	21 – 30	1
---	< 21	---

#### Employment of staff with altered work capability

The annual converted count of NIPH employees numbered 639 persons. The mandatory ratio of employees with altered work capability classification (4 % according to §24 paragraph 6 law no. 1/1991 Sb. in the wording of law no. 474/2001 Sb.) is 26 persons.

The actual number in 2003 was 19 persons. The state budget received 171 374,- Kč in lieu of the shortfall of 7 persons.

#### 4. Science and research

Despite the increased workload associated with the Institute's classification as public health protection facility, and actual requirements stipulated by the Public Health Protection Act, research activities were both intensive and extensive .

All research activities, as well as their financing, were based on Research Objectives. (4 sectional research objectives and 35 tasks). The second focus of research comprised IGA projects (26), followed by GA ČR projects (12). A small amount of research was financed by grant agencies from various sectors and AV ČR (8).

A separate area to yield research results is part of the intervention projects for health promotion. These are financed by the Ministry of Health through the National Health Programme. NIPH completed 13 such projects.

In total, 66 projects were conducted and financed.

##### No. of grants and Research Objectives in 2000 – 2003

Agencies	1999	2000	2001	2002	2003
IGA	32	27	22	25	26
VZ IGA	(35) 4	(35) 4	(35) 4	(35) 4	(35) 4
GA ČR	10	13	14	14	12
AV ČR	2	3	3	2	3
MŠMT	5	6	4	3	3
Mze	1	1	1	0	1
MŽP	0	2	4	5	4
NPZ*	15	11	12	9	13
Total	69	67	64	62	66

\* National Health Programme

In all, 1 460 000,- Kč of invested and 38 766 000,- Kč of non-invested finances were provided through grant agencies and the National Health Programme. Of this amount, 4 110 000,- Kč was reserved for wages.

**Overview of finances (in thousands) allocated to grant projects and research objectives in 2003**

Agencies	No. of grants	Finances::			Average allocated per grant
		investment	non-investment	including:	
				wages	
IGA	26	270	13 976	1 740	548
VZ IGA	(35) 4	550	13 670	1 311	3 555
GA ČR	12	125	3 989	639	343
AV ČR	3	0	388	68	129
MŠMT	3	520	2 092	121	871
Mze	1	0	359	83	359
MŽP	4	0	1 160	148	290
NPZ*	13	0	3 132	0	241
Total	66	1 465	38 766	4 410	610

\* National Health Programme

The chart shows financing for research is on the increase. The difference between 2002 and 2003 totals 24,8 %.

**Overview of finances (in thousands) allocated to grant projects and research objectives in 1999 – 2003**

Year	Finances:		
	investment	non-investment	including: wages
1999	5 573	25 542	2 491
2000	4 400	28 139	2 713
2001	8 527	34 900	3 321
2002	1 292	31 050	3 037
2003	1 465	38 766	4 410

**Projects conducted by NIPH in 2003 (ongoing and new)**

Grant agency	Researcher	Project no.	Duration	Title of project
Mze	Dr. Karpíšková	QF 3085	2003 – 2005	Evaluation of antibiotic resistance of <i>Campylobacter jejuni</i> originating in foodstuffs, the environment

				and humans.
GA AV ČR	Dr. Jírová	A4050301	2003 – 2005	Hydrophilic polymers with fixed saccharides for biological applications.
	Dr. Kebza	IAA8025902	1999 – 2003	Tackling inequalities in Health.
	Dr. Kožíšek	S6022006	2000 – 2004	Incidence of oocysts of <i>Cryptosporidium spp.</i> in drinking water.
MŽP	Dr. Kotlík	VaV/740/4/01	2001 – 2005	Characterisation of airborne pollution load on inhabitants of small domiciles and bioaerosol pollution
	ing. Matějů	VaV/720/4/02	2002 – 2003	Means and methods for using sludge from ČOV sediment.
	doc. Tichý	VaV/340/2/01	2001 – 2003	Alternative method for determination of acute toxicity of chem. substances and estimation of the acute toxicity of their compounds.
	Dr. Rössner	VaV/740/5/03	2003 – 2007	Protective measures against airborne pollution.
MŠMT	Dr. Souček	OC B20.001	2002 – 2006	Study of the influence of genetic factors on breast cancer.
	Mgr. Veselá	LI002026	2000 – 2003	Data sources for promotion and protection of health and healthy environmental conditions.
GA ČR	Mgr. Rucki	305/03/P018	2003 – 2005	Acute toxicity and the division coefficient of n-oktanol/water in binary chem. compounds.
	Dr. Havlíčková	310/02/0467	2002 – 2004	Systemic and mucous immune response following adjuvant immunization of mucous membranes with inactive influenza virus.
	Dr. Kebza	406/03/1168	2003 – 2005	Psychosocial inequalities in health.
	Dr. Křížová	310/02/1448	2002 – 2004	Biological activity of RTX proteins FrpC from <i>Neisseria meningitidis</i> and its role in meningococcal

				disease.
	Dr. Melter	310/01/1363	2001 – 2003	Properties and resistance of <i>Staphylococcus aureus</i> strains isolated from cases of serious infection
	Dr. Nemec	310/01/1540	2001 – 2003	Evolution of multiresistance in <i>Acinetobacter baumannii</i> : the relationship between clonality and resistance to aminoglycosides.
	Dr. Petráš	301/02/1505	2002 – 2004	Molecular diagnostic, epidemiology and classification of clinically significant gram-positive cocci.
	Dr. Souček	203/02/1152	2002 – 2004	Structure and function of cyto-chromes P450 of human and (mini) porcine origin.
	Dr. Souček	310/01/0802	2001 – 2003	Mechanisms of the genotoxic effects of the chem. carcinogens 1,3 butadiene: adaptive response and estimation of individual sensitivity.
	Dr. Souček	310/01/1537	2001 – 2003	Breast cancer: study of the role of genetic factors.
	Dr. Vodičková	310/03/0437	2003 – 2005	Understanding styrene genotoxicity: the role of DNA repair, new reactive metabolites and secondary oxidation stress.
IGA MZ ČR	Dr. Kratěnová	NJ/7386-3	2003 – 2005	Risk factors for poor body posture in schoolchildren, prevalence of motor disease.
	ing. Vignerová	NJ/6792-3	2001 – 2003	6th nationwide anthropological examination of children and adolescents 2001.
	Dr. Souček	NL/7295-3	2002 – 2004	Presence of cytochrome P450 in stem cells.
	Dr. Souček	NJ/6747-3	2001 – 2003	Study of the role of genetic factors in the development of non-Hodgkins

				lymphoma.
	Dr. Gut	NL/6715-3	2001 – 2003	Resistance mechanisms in cell lines a breast cancer to chemotherapy with taxanes and options for manipulating them.
	Dr. Gut	NL/7567-3	2003 – 2005	Influence of polyphenols and chelates on the toxicity and effects of anthracyclines and taxanes.
	Dr. Mráz	NJ/7387-3	2003 – 2005	Molecular dosimetry of exposure to alkylating reagents. Determination of adducts with globin modified by Edmanov's degradation procedure.
	Mgr. Nerudová	NJ/6775-3	2001 – 2003	Presence of heavy metals in dental material as a risk factor in the development of autoimmune disease.
	Dr. Rencová	NJ/6772-3	2001 – 2003	The influence of chemical and physical factors on the kinetics and decorporation of alpha-emitting radionuclides in rodents.
	ing. Stránský	NJ/7564-3	2003 – 2005	Biological monitoring and health risks of industrial exposure to methylen-4,4-diphenyldiisocyanate.
	Dr. Šperlingová	NJ/6784-3	2001 – 2003	Research and development of human urine as a reference material: kyselina mandlová a kyselina fenylglyoxylová.
	doc. Tichý	NJ/7435-3	2003 – 2005	Determination of the hazards of chemical compounds using statistical/mathematical analysis.
	Dr. Hrubá	NI/6811-3	2001 – 2003	The role of <i>Chlamydia pneumoniae</i> in the pathogenesis of chronic disease in humans.
	Dr. Hulínská	NI/6880-3	2001 – 2003	Ehrlichiosis and Borreliosis - differentiation of health risk using molecular biological methods.

	Dr. Křížová	NI/7109-3	2002 – 2004	Prognostic factors of invasive meningococcal disease and their influence on therapeutic strategy.
	Dr. Křížová	NI/6803-3	2001 – 2003	Properties of <i>Haemophilus influenzae</i> collected during a nationwide surveillance programme.
	Dr. Křížová	NI/6882-3	2001 – 2003	Multilocus sequential analysis of <i>Neisseria meningitidis</i> populations.
	doc. Kříž B.	NI/7397-1	2003	Multipurpose serological survey of antibodies against selected preventable infections that are subject to vaccination.
	Dr. Motlová	NI/7382-3	2003 – 2005	Molecular genetic typing of <i>Streptococcus pyogenes</i> : emm typing.
	Dr. Musílek	NJ/7458-3	2003 – 2005	The properties and evolution of a hypervirulent clonal complex of <i>Neisseria meningitidis</i> newly emergent throughout central Europe.
	Dr. Němeček	NI/6796-3	2000 – 2003	Molecular epidemiology of hepatitis B virus: sequential analysis of the HBV genome as an epidemiological tool.
	Dr. Suchánková	NI/6845-3	2001 – 2003	Study of the epidemiology and pathogenesis of human herpes virus 8 (HHV8) in CR.
	Dr. Urbášková	NI/6799-3	2001 – 2003	Analysis of the causes and spread of antibiotic resistance by <i>Streptococcus pneumoniae</i> and <i>Str. pyogenes</i> in ČR.
PPZ HH	Dr. Sovinová	7 111	2003	Stop smoking and be a winner.
	doc. Komárek	8 013	2003	A TASTY LIFE correct nutrition and suitable exercise – prerequisites and means of healthy aging..
	prom. ped.	8 107	2003	Implementation of the

	Vildová			Schools for Health programme by distribution of documents.
	Dr. Markvart	8 108	2003	Health and environment – communal options.
	Dr. Šulcová	8 109	2003	Decreasing mental load on primary school teachers and options for defining it.
	Dr. Skálová	8 110	2003	Prevention on the internet – interactive website dealing with prevention of non-infectious diseases.
	Dr. Sovinová	8 111	2003	Alcohol problems in daily medical practice.
	Dr. Kebza	8 112	2003	Psychosocial health determinants.
	Dr. Kernová	8 113	2003	Pharmacies for health promotion.
	Dr. Kodl	8 114	2003	Prevention of skin damage caused by negative environmental factors.
	doc. Komárek	8 115	2003	'Get your heart moving' campaign.
	dr. Kernová	8 116	2003	'About us, for us – the diary of a schoolboy' part 8.

**Evaluation of final reports on IGA grants by Ministry of Health authorities in 1991 – 2002**

Category year	A	B	C	D	Total
1991			1	1	2
1992	4	8	2		14
1993	7	22	4		33
1994	8	9	1		18
1995	4	14	4		22
1996	6	7	5		18
1997	6	7	5		18
1998	x/ 7	8	2		17
1999	7	10	1		18
2000	3	4	3		10
2001	3	4	1		8

<b>2002</b>	2	4			6
<b>Total</b>	57	97	25	1	166

x/ the Minister of Health prize

**Overview of completed Ministry of Health IGA grants 1991-2003  
by Centre and specialised work sites**

Year	CEM	CHPN P	CHP Ř	CHŽP	CZŽP	CHZ x/	OBI since 2003 ŘÚ	NOČ since 2003 cancell ed	Total
1991	2								2
1992	6	6	1		1				14
1993	8	10	1	1	8	5			33
1994	6	7	1	1	2	1			18
1995	9	5		2	5			1	22
1996	5	8	1		3		1		18
1997	7	4	1	2	4				18
1998	10	5			2				17
1999	1	8	3	2	3		1		18
2000	2	3	1	4					10
2001	2	3		1	1		1		8
2002	3	2	1						6
2003	8	4					1		13
<b>Total</b>	69	65	10	13	29	6	4	1	197

x/ delimited in 1995 to SÚJB

## 5. Postgraduate education

The individual education of professionals, which are current and future support in expert teams, plays continuously an increasing role in postgraduate educational activities of the NIPH. That way, the Institute will seek to carry out needed rejuvenation of the staff. In the year 2003, the supervisors of the institute guided 31 Ph.D. students altogether.

### Postgraduate training of Ph.D. students in 2003

Centre	Number of students	Number of students from medical faculties	Number of supervisors
--------	-----------------------	--	--------------------------

Centre of Epidemiology and Microbiology	12		5
Centre of Health and Environment	4	3	1
Centre of Environmental Health	4	-	3
Centre of Industrial Hygiene and Occupational Diseases	8	5	5
Centre of the Hygiene of Food Chains	3	-	2
Total	31	8	16

The total number of educational activities in the year 2003 has decreased in comparison with previous years. It was caused by the transformation of the organization of the former Public Health Service and by the creation of new administrative units. The traditional and over years experienced educational programme has been left and the current needs of specific educational activities are being formed according to new requirements of the Law about protection of public health.

Altogether 38 educational activities have been arranged.

### **Educational activities in the year 2003**

Centre/type of activity	Consultation day	Workshop	Conference	Course	Discussion assembly	Total
Centre of Epidemiology and Microbiology	9	2				11
Centre of Industrial Hygiene and Occupational Diseases		6	3			9
Centre of Environmental Health	4	6	1			11
Centre of Health and Environ-	1	1	1		2	5

ment						
Director				1		1
Centre of the Hygiene of Food Chains	1					1
Total	15	15	5	1	2	38

### Postgradual activities of the NIPH in the years 2001, 2002 and 2003

Activity / number of activities	2001	2002	2003
<b>Courses</b>	4	4	1
Consultation days	19	19	15
Workshops	17	16	15
Conferences	6	5	5
Discussion assemblies	1	2	2
Study visits	1	1	
Total	48	47	38

Aside of these centrally organized activities, there have been running many of individual and group activities being organized by particular centres within the framework of methodical and reference activity.

## 6. Activities of reference laboratories and methodical guidance

### No. of NRL at NIPH in 2003 according to Ministry of Health listings (2003)

Centre	no.
CEM	25
CZŽP	10
CHŽP	4
CHPNP	7
CHPŘ	2
Dept. of Veterinary Services	1

### NRL activities in 2003

Number and type of samples examined

Field: Epidemiology and Microbiology

Type of material	No. of samples examined for:	No. of samples:
------------------	------------------------------	-----------------

examined	Public Health Service	Medical facilities	Others	Total	Reimbursement
Blood, blood derivatives	100	7 646	20	7 766	6 993
Serum	3 273	19 490	2 731	25 494	7 660
Other biological material	213	7 066	1 278	8 557	4 454
Testing of strains	15 187	39 555	2 088	56 830	2 176
Examination of physiological indicators in humans and animals	168	1212	237	1 617	
Groups of products	89	3	286	378	157
Environmental samples	5			5	
Cosmetics				0	
Items of common usage				0	
Disinfectants		7	37	44	37
Insecticides and rodent control products			36	36	36
Chemicals		2	41	43	39
Total	19 035	74 981	6 754	10 0770	21 552
Percentage	18,89 %	74,41 %	6,70 %	100,00 %	21,39 %

### NRL activities in 2003

Number and type of samples examined

Field: Public Health

Type of material examined	No. of samples examined for:			No. of samples:	
	Public Health Service	Medical facilities	Others	Total	Reimbursement
Blood, blood derivatives	773	536	156	1 465	156
Serum	11			11	
Other biological material	1 254		166	1 420	156
Testing of strains	32		66	98	3
Examination of physiological indicators in humans and animals	823	10	2 015	2 848	2 275

Groups of products	522	39	1 408	1 969	909
Environmental samples	1 502	5	2 565	4 072	2 065
Cosmetics	15		2 203	2 218	2 218
Items of common usage	45		1 858	1 903	1 865
Disinfectants			6	6	6
Insecticides and rodent control products				0	
Chemicals	46	15	36	97	36
Total	5 023	605	10 479	16 107	9 689
%	31,19 %	3,76 %	65,06 %	100,00 %	60,15 %

### NRL paperwork in 2003

Field: Public Health

Type of activity	Written assessments and validation:				Reimbursement
	MH ČR	Public Health Service	Other medical facilities	Other organisations	
Specialised reports	63	308	38	2257	2462
Reviews and recommendations	136	104	25	180	73
Methodological guidance and legislation	136	13		51	
Standard methodology	3	5		3	

### NRL paperwork in 2003

Field: Epidemiology and microbiology

Type of activity	Written assessments and validation				Reimbursement
	MH ČR	Public Health Service	Other medical facilities	Other organisations	
Specialised reports	13	53	53	160	98
Reviews and recommendations	142	109	41	136	4

Methodological guidance and	5	45	9	10	
Standard methodology		2	8	2	

### Methodical NRL activity in 2003

Field: Public Health

	Event				Total
	Consultation days	Seminars	Study visits	Pre- and postgraduate courses	
No. of events	80	44	72	294	490
No. of participants	1 607	1 638	194	11 125	14 564
Total no. of days	58	51	252	265	626

### Methodical NRL activity in 2003

Field: Epidemiology and Microbiology

	Event				Total
	Consultation days	Seminars	Study visits	Pre- and postgraduate courses	
No. of events	16	74	155	227	472
No. of participants	1 226	3 782	971	7 605	13 584
Total no. of days	17	76	186	221	500

## 7. International cooperation

In 2003, the major part of international cooperation involved splicing existing Czech legislation with that of the EU. The Institute cooperated with various European public health organisations and specialist EU committees, in which a number of NIPH staff serve as specialists in specific fields. These activities are described in detail in the relevant chapter.

A total of 15 projects were forwarded to the EU project „Community Action in the Field of Public Health“ for 2004 – 2006. Concurrently, other research projects were presented for the 6th framework EU research plan.

NIPH houses 4 collaborating WHO centres.

### WHO Collaborating Centre for Reference and Research on Streptococci

Head: MUDr. Pavla Křížová, CSc.

WHO in Geneva was presented with pertinent data for prolonging the status of this Centre as a collaborating centre for streptococci. The Centre continued in providing all-inclusive microbiological and epidemiological coverage for diseases caused by group A and B streptococci, pneumococci and streptococci of other groups. This Centre is one of the few specialised laboratories in the world to own an extensive collection of sera for M and OF typing of group A streptococci. In 2003, the Centre continued in typing strains isolated abroad and sent for precise identification, and sent reference strains on request. Likewise, work continued on collaborative prospective study aimed at monitoring the efficiency of a newly developed 11-valency conjugated pneumococcal vaccine for prevention of otitis in children. Cooperation with the 5th framework EU programme "Strep-EURO" carried on.

### **WHO Collaborating Centre for Bacteriology of Tuberculosis**

Head: MUDr. Marta Havelková

The Centre participated in the following work-groups and projects:

- WG NTM (Working Group of Non-tuberculous Mycobacteria of the Bacteriology and Immunology Section of the WHO/IUATLD) involved in researching the incidence and significance of non-tuberculous mycobacteria. Coordinator Dr. Nuria Martín-Casabona, Hospital Universitari Vall d'Hebron, Barcelona, Spain,
- The work-group for expanding DOTS (DEWG – DOTS Expansion Working Group) and its Subgroup on Laboratory Capacity Strengthening (SLCS),
- Coordinator Dr. Mario Raviglione, WHO,
- The Drug susceptibility-testing (DST) project – Quality Control in DST – organised by the WHO/IUATLD reference laboratory, Antwerp, Belgium, Prof. F. Portaels.

### **Global Project WHO on Antituberculosis Drug Resistance Surveillance in the World**

Function: member of work-group

Foreign partner: WHO, Geneva, Switzerland, GTP – Global Tuberculosis Programme, Stop TB Department, DRS Unit, Ariel Pablos-Mendéz, M. D., M. P. H.

Timing: 1995 – to date, the project will continue in the future.

Further information: the head of this project since 1997 was Marcos Espinal, M. D., the current head is Mohamed Azíz, M. D., results published in WHO reports 1 – 3.

### **Global Project WHO/IUATLD on Network of Supranational Reference Laboratories**

(IUATLD – International Union Against Tuberculosis and Lung Diseases)

Function: head of the Supranational Reference Laboratory

Foreign partner: representing WHO see above, representing IUATLD up to 1998 the Laboratory Centre for Disease Control, Ottawa, Kanada, Dr. Adalbert Laszlo, since 1999

the Prince Leopold Institute of Tropical Medicine, Antwerp, Belgium, Prof. Françoise Portaels.

Timing: 1996 – to date, the project will continue in the future.

### **WHO Collaborating Centre for Reference and Research on Borreliosis**

Head: RNDr. Dagmar Hulínská, CSc

The Centre's task for WHO was isolation, storage and typing of strains of *B. burgdorferi* sensu lato, endemic in our region, and by use of our endemic antigens in the serological ELISA test, which should yield, along with confirmation from our Western blots (as recommended by CDCP) greater sensitivity and specificity. Cooperation with CDCP, Atlanta (participation in the Edit. Board Emerging Infectious Diseases, providing monoclonal antibodies and typed control sera), and, along with other institutes in the USA (SUNY, Stony Brook, NY Medical College, Valhalla, New Jersey Medical University) offers the opportunity to exchange experiences, organise seminars, conferences and tuition on national and international levels (NATO workshop under preparation).

### **WHO Collaborating Centre in Occupational Health**

Head: Prof. MUDr. M. Cikrt, DrSc.

#### ***Activities in 2003***

The HPNP Centre is a WHO collaborating Centre for occupational health. WHO has confirmed redesignation of this Centre for a further 4 years. The Centre continues to fulfil its tasks in the Worldwide Programme of Occupational Health Research 2002 – 2005, which is coordinated by WHO through 4 projects as follows:

- Task Force 1: Guidelines for categorization of work activities on the basis of health risk assessment (executive MUDr. J. Baumruk).
- Task Force 4: Monitoring of respiratory effects in workers occupationally exposed to asbestos (executive MUDr. J. Lebedová).
- Task Force 7: Musculoskeletal disorders – evaluation of exposure and detection of health effects (executive MUDr. J. Hlávková).
- Task Force 15: National surveillance of the incidence of occupational diseases in the Czech Republic (executive MUDr. P. Urban, CSc.).
- WHO/HQ OEH was presented with a report of occupational diseases reported in the Czech Republic in 2002.
- The Centre serves as the focal point of the International Programme of Chemical Safety (IPCS). In this role it also checks WHO/IPCS documentation, such as the Environmental Health Criteria (EHC) and Concise International Chemical Assessment Documents (CICAD).

In all, 16 international scientific and research projects were completed.

## 8. Publication activities

Outcomes of the NIPH publication activities have been regularly processed and entered in the bibliography database of the Scientific Information Centre.

Authorship and co-authorship of journal papers and monographies (books, manuals, textbooks, proceedings) available on both classical and electronic media and since 2002 also of documents with distant access (available on the Internet) have been monitored on a long term basis.

In 2004, 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 528 bibliographic records of works published in 2003 were processed (those from 2002 were progressively completed to total 501 records). The bibliographic data were reported by authors and updated on an on-going basis from primary documents and bibliographic databases (Bibliographia Medica Czechoslovaca and PubMed).

Table 1 shows numbers of publications by centres in 2003 (39 publications resulted from cooperation of authors from two or more centres). Final grant reports are not taken into account.

Forty-four out of 299 journal papers accepted for publication appeared in 32 high-impact journals.

The bibliographic records of the NIPH publication activities of 2003 and those added for 2002 will be presented, as every year, in a supplement to the journal *Acta hygienica, epidemiologica et microbiologica* „NIPH Bibliography 2002/2003“.

The full text of this supplement issue will be available at <http://www.szu.cz/svi/ahem.html>.

## 9. Editing activity

### Drawing financial means for editorial and audiovisual activities.

The editorial and dramaturgic board of the NIPH met on December 4, 2002, to discuss and approve the editorial plan for the year 2003. An expert team has fulfilled the editorial plan on the basis of allocated financial means.

*Financial limit:* 3 400 000,- CZK

*Financial drawing: edition + video:* 3 397 467,- CZK

Edition	CZK
Leaflets	755 357.-
Brochures	1 503 429.-

Posters	184 470.-
Other	254 214.-
Contribution for health and vaccination cards of children and adolescents	200 000.-
<b><i>Edition in total</i></b>	<b><i>2 897 467.- CZK</i></b>
<b>Video</b>	<b>CZK</b>
Video program	300 000.-
Contribution to videofilm within the framework of the National Health Promotion Program	200 000.-
<b><i>Video in total</i></b>	<b><i>500 000.- CZK</i></b>

In the year 2003 there have been published:

- 9 leaflets
- 10 paperbacks
- 4 posters
- 2 other

25 items altogether

Titles of particular nonperiodical publications edited in 2003 - see appendix.

Distribution of publications to healthcare and educational institutions has been coming off primarily through Public Health Centers with residence in the regional capitals.

## Audiovisual activities

### *Materialization*

In the year 2003 one video program has been finalized. The title of the video program made in 2003 - see appendix.

### *Activities of video distributor*

The offer of video programs for lending out and sale is realized through a video catalogue of the NIPH, which is distributed to healthcare and other institutions as well as to individual parties interested.

In total 426 video tapes were lent out free of charge.

In total 130 video catalogues were handed out.

Constituency of clients: healthcare institutes, Regional and District Public Health Centers, educational and healthcare institutions, district and municipal organs, educational offices,

pedagogical- psychological advisory centres, foundations, childrens homes, civil associations, military organizations, prison service, doctors, firms, individuals, etc.

*Activities of videofilm shop*

A total of 124 pieces sold through GRANT-Videotranscription, Ltd., pursuant written contract with the NIPH and on non-commercial prices, approved by the Economical department (EO) of the NIPH.

**Overview of presentation of video programs and eye catchers**

- Participation of video programs in exhibitions
- Festival “Crystal Heart - Poděbrady“, May 27 - 30, 2003
- Video programs chosen for projection:
  - A Challenge or The Voyage With No End
  - Pictures from Childhood V.
- Workshop and video on at the cinema MAT, November 25, 2003
- For the staff of the Departments for Health Promotion at Public Health Centers

## **Appendix**

### **List of non-periodical publications and video programs published in 2000**

#### **Leaflets:**

Chronic catarrhs of the upper respiratory tract  
Rehabilitation exercises in chronic bronchitis and in asthma  
How to furnish a barrier-free flat  
Milk and milk products  
A regimen for obese children  
How to take care of a child in illness  
Artificial fertilization and advice for women  
An expectant mother and father in the maternity hospital  
Ways of preparing foodstuffs - broiling  
Diet in infectious mononucleosis and infectious jaundice  
Cyanobacteria and aquatic recreational activities  
Ten pieces of advice for selecting a good air-cleaner  
Don't start smoking at all  
Alcohol and its risks  
Scabies  
How to protect oneself against diarrhea  
Beware of noise  
Exercises for children with poor posture  
How to protect children against addictive drugs  
Ten suggestions for protection against mycotoxins

**Brochures:**

Regimen in osteoporosis

WHO nutrition recommendations

Lucy has a sweet tooth

To parents with a mentally disabled child

European Alcohol Action Plan

How to get backache under control effectively

Ergonomic requirements at display workplaces

The workplace and health

Education to health

Video catalogue

**Posters:**

Washing hands - a fundamental element in personal hygiene

World Day without Tobacco

Microclimate inside buildings

Work in hot environment

The pyramid of nutrition

World Day of the Heart

**Video programs:**

Pictures from childhood III.

In order they can serve II.

Liquids in human life

**Numbers of publications by centres in 2003**

		CEM	CHŽP	CPŘ	ČŘKZ	CZŽP	HPNP	OBI	SVI	Total
Journal paper	CR	159	34	10	0	17	31	16	1	268
	Other country	20	5	2	0	7	12	5	1	52
Monography	CZ	4	3	4	0	4	1	1	1	18
	Other country	0	0	0	0	0	0	0	0	0
Article for proceedings	CZ	31	39	16	7	12	36	8	0	149
	Other country	21	5	8	4	5	14	1	0	58
Chapter in a monography	CZ	0	3	0	0	10	1	0	0	14
	Other country	0	0	0	0	0	0	0	0	0
Electronic document	CZ	1	1	4	0	0	2	0	0	8
	Other country	0	0	0	0	0	0	0	0	0
Total	CZ	195	80	34	7	43	71	25	2	457
Total	Other country	41	10	10	4	12	26	6	1	110
Total		236	90	44	11	55	97	31	3	567

CEM Centre of Epidemiology and Microbiology  
 CHŽP Centre of Environmental Health  
 CPŘ Centre of the Hygiene of Food Chains  
 ČŘKZ Centre for Quality Control and Management in Healthcare  
 CZŽP Centre of Health and Environment  
 HPNP Centre of Industrial Hygiene and Occupational Diseases  
 OBI Department of Biostatistics and Informatics  
 SVI Scientific Information Centre

## **10. Statutes of the National Institute of Public Health**

### **STATUTES OF THE NATIONAL INSTITUTE OF PUBLIC HEALTH**

#### **Article 1**

##### **Preamble clauses**

1. The National Institute of Public Health (hereinafter the Institute) was established by Article 86 of Act No 258/2000 as last amended as a healthcare facility.
2. The Institute is a contributory organization directly controlled by the Ministry of Health of the Czech Republic (hereinafter the Ministry). Based on the provision of the Minister of Health of December 17, 2002 under reference HEM – 300 – 18.12.02/35651 and the statement of the Minister of Health of December 17, 2002 under reference 31334/2002, the Institute is the successor of the state organizational component, the National Institute of Public Health, repealed by the date of the establishment of the Institute as a contributory organization.
3. Address of the Institute: Prague 10, Šrobárova 48/49, post code: 100 42
4. Identification number of the Institute: 75010330
5. The Institute is entitled to establish branches and outcentres.
6. The Institute is a functional and organizational economic unit that acts in all legal relations on its own behalf and responsibility.

#### **Article 2**

##### **Mission, major tasks and other tasks of the Institute**

### **1. The mission and major tasks of the Institute specified by Article 86, Paragraphs 2 and 3 of Act No 258/2000, on public health protection, as last amended, are as follows:**

- 1.1 To prepare background information for national public health policy making and health protection and promotion;
- 1.2 To provide methodical and reference support in the field of public health protection;
- 1.3 To monitor and to study relationships between environmental conditions and health;
- 1.4 To participate in international cooperation;
- 1.5 To assure quality control of services provided in public health protection;
- 1.6 To provide postgraduate education in the medical disciplines of health protection and promotion and to promote community public health awareness;
- 1.7 To process data on population health relevant to prevention of the emergence and spread of infectious diseases, occupational health risks and other occupational

health damage, human exposure to occupational and environmental pollutants and the epidemiology of drug addiction, with the aim of obtaining background information for national policy making and the monitoring of long-term trends in the incidence of infectious and other diseases of high prevalence;

2. Other tasks of the Institute specified by Article 86, Paragraph 4 of Act No258/2000 as last amended, are as follows:
  - 2.1 To promote preventive medicine disciplines and research in these disciplines, and to create conditions for these activities;
  - 2.2 To breed laboratory animals and to carry out experiments on animals;
  - 2.3 To provide healthcare and counselling including diagnostic activities in the following disciplines: occupational medicine, toxicology, psychology, physiology, clinical microbiology, parasitology, immunology and allergology;
  - 2.4 To take part in law making and harmonization with the EU legislation;
  - 2.5 To take part in the creation of standards and databases for Czech National Standards relevant to health protection;
  - 2.6 To develop standard methods and operating procedures in the field of public health protection;
  - 2.7 To provide paid services, i.e. counselling and expert opinion in healthcare to be either covered by health insurance or charged for, testing and procedures on request of health insurance companies, external quality assessment of laboratory procedures, supply of diagnostic agents and performance of occupational medicine procedures;
  - 2.8 To provide specialized and methodical support in the fields of public health protection and promotion as well as diagnosis, treatment and prevention of infectious diseases;
  - 2.9 To assess occupational and environmental health risk factors and to present the necessary suggestions for job categorization, limit values not established by regulations, etc.;
  - 2.10 To assess risks in the field of food safety and to communicate with the public when authorized by the Ministry of Health;
  - 2.11 To investigate and to measure occupational and environmental factors, products (including human and animal testing) and biological specimens, and to carry out biological exposure tests for the purposes of monitoring population health indicators, occupational and environmental factors and those related to working and living conditions, to provide background information in health risk assessment and management for activities of the public health authorities as part of

the integrated rescue system, and to take part in health protection and health promotion programmes;

- 2.12 To take part in the accreditation system and quality control; to ensure methodical and organizational procedures for laboratory authorization; to confer authorization when authorized by the Ministry of Health;
- 2.13 To take part in the management of certification and accreditation programmes for health care facilities including special healthcare facilities;
- 2.14 To ensure programmes on healthcare provision quality and to take part in these programmes, including implementation of the projects for quality promotion in public health as presented and adopted by the Ministry of Health of the Czech Republic in agreement with the national policy for quality promotion in the Czech Republic, related to standardization in healthcare and methods for assessment of provided healthcare efficiency;
- 2.15 To technologically ensure the administration of records related to quality programmes and communication between providers and users of quality programmes;
- 2.16 To monitor selected occupational and environmental factors;
- 2.17 To measure and to test subjects for fulfilment of the tasks set;
- 2.18 To prepare background information for public administration activities in the fields of genetically modified organisms, chemicals and chemical agents including biocides, air protection and waste management;
- 2.19 To assess plant protective agents in terms of human health protection;
- 2.20 To fulfil tasks emerging from the Verification Protocol of the Convention on the prohibition of the development, production and stockpiling of bacteriological (biological) and toxin weapons and on their destruction (Convention on biological weapons) for the field of public health;
- 2.21 To provide public library and information services in the field of public health and to take part in publishing activities;
- 2.22 To provide pregraduate and postgraduate training in healthcare, preventive medicine and microbiology, with particular focus on evaluation of occupational and environmental health risks, health promotion, primary and secondary prevention of infectious, chronic and noncommunicable diseases and occupational healthcare;
- 2.23 To organize conferences and other expert meetings;

- 2.24 To cooperate in activities related to the operation and maintenance of public health information systems (e.g. Workplace Categorization, Acute Respiratory Diseases) and data evaluation;
- 2.25 To rate healthcare technologies from the point of view of public health protection;
3. In a state of military preparedness and emergencies in the Czech Republic, the Institute is a specialized healthcare centre directly controlled by the Ministry of Health of the Czech Republic. The Institute takes part in execution of tasks in the fields of hygiene, epidemiology, toxicology and microbiology to the benefit of the population of the Czech Republic.

### Article 3

#### Management and organization of the Institute

1. The head of the Institute is the director who is appointed and removed by the Minister of Health of the Czech Republic on suggestion of the Chief Public Health Officer of the Czech Republic. The director is the statutory representative of the Institute with general authority.
2. In the director's absence, an interim representative is appointed in writing by him/her to act on his/her behalf to the full extent of his/her rights and liabilities.
3. The director of the Institute may establish a counselling board for consideration of issues of managing the Institute.
4. The organizational structure of the Institute and management relationships and bonds are specified in detail by the director in the Organizational Rules of the National Institute of Public Health (hereinafter Organizational Rules). In the Organizational Rules, the director also specifies the establishment, change or abolition of the branches or outcenters of the Institute according to Article I, Paragraph 5.

### Article 4

#### Final clauses

1. Changes and amendments to the Statutes can only be made with the agreement of the Ministry.
2. These statutes shall come into force after being ratified by the Ministry.

Done at Prague

Date: November 11, 2003

Signature: Jaroslav Volf, MD, Ph.D.  
Director of the Institute



*Annual Report 2003*

Date: November 12, 2003

Signature: Marie Součková, MD  
Minister of Health of the Czech Republic