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«TRAINING ACTIVITIES ON FOOD CONTAMINATION CONTROL
AND MONITORING WITH SPECIAL REFERENCE TO MYCOTOXINS»

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ORGANIZATION
OF FOOD QUALITY CONTROL
IN THE USSR
AND OTHER COUNTRIES



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In the Soviet Union, state control in the sphere of environmental protection is exercised by a number of state bodies over the activities of Ministries, departments, state, cooperative and public organizations and enterprises, as well as individual citizens.

For instance, the Ministry of Agriculture exercises control over the observance of land legislation, land utilization procedures and rules governing the use of pesticides so as to keep off harmful substances from agricultural produce and to prevent their accumulation in the soil and water bodies.

The Ministry of Land Improvement and Water Conservancy exercises control over the rational use of water resources in the national economy and ensures their protection against pollution, salination and exhaustion, and also supervises the work of purification installations and the dumping of industrial, communal, agricultural, drain and other effluents, thus preventing the accumulation of noxious agents in a number of water bodies used as human food.

The Ministry of Fisheries ensures protection and reproduction of fish resources in the country and regulates fishing practices.

The USSR State Committee for hydrometeorology and control of the environment is responsible for the organization

and activity of the state system of environmental supervision and control, for the use of the air in cities and industrial centres and for the prevention and control of air pollution, which can also affect food produce.

Within the system of environmental protection a significant role is played by the USSR Ministry of Health, which shall be subject to a later discussion.

Within the framework of the Ministry of Health the function of state control or state sanitary supervision, including that over environmental protection is assigned to the sanitary-epidemiological service. It should be noted that state supervision is not limited to the control of environmental pollution which is but one of the broad activities of the sanitary-epidemiological service.

The legal basis of these activities is provided by the "Basic Principles of the Legislation of the Union of Soviet Socialist Republics and Union Republics on Health Protection" and by the Decision of the USSR Council of Ministers approving the "Statute of State Sanitary Supervision in the USSR".

The history of the sanitary-epidemiological service dates back to the first years of Soviet power in Russia.

Characterizing the initial period of sanitary legislation, N.A. Semashko, the first People's Health Commissar of the Russian Federation, wrote: "It was, perhaps, in the field of sanitation and epidemiology where Lenin's influence had been the strongest. I discussed with him all our main decrees including the last one on the sanitary bodies of the Republic

and they were put into life with his warm support".

The first legislative acts in this field were based on Lenin's ideas expounded by him in the pamphlet "Materials Relating to the Revision of the Party Programme"(1917). Lenin stressed that the Party demanded "sanitary laws to be enacted for improving hygienic conditions and protecting the life and health of workers in all enterprises where hired labour is employed; questions of hygiene to be handled by the sanitary inspectorate elected by the workers' organizations". In the same pamphlet Lenin stressed the need for "housing laws to be enacted and a housing inspectorate elected by the workers' organizations to be instituted for the purpose of sanitary inspection of dwelling houses".

The State Sanitary Inspectorate dates from the Decree of the Council of People's Commissars of the Russian Federation of September 15, 1922, called "On Sanitary Bodies of the Republic" which instituted the sanitary service within the framework of the People's Commissariat of Health of the USSR. It was assigned the functions of state sanitary supervision over the environment and the assessment of its condition.

The Decree was based on the Party Rules adopted by the VIII-th Congress of the Russian Communist Party (Bolsheviks) in March, 1919. For the first time in the history of political parties the Congress included a special Section devoted to the following words: "In its activity in the field of the protection of people's health the Russian Communist Party (Bolsheviks) proceeds, first and foremost, from the need for

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broad sanitation and sanitary measures aimed at prevention of diseases".

The country sanitary system based on the requirements of the Programme of the Russian Communist Party has been occupying an extremely significant place in the Soviet public health system.

Due to constant care and attention of the Communist Party and the Government, the sanitary-epidemiological service made good progress and constituted one of the key elements of the Soviet health system at the outbreak of the 1941-1945 Great Patriotic War.

The State sanitary-epidemiological service is represented by a system of organs and establishments of sanitary and preventive activities working under the USSR Ministry of Health.

The State sanitary-epidemiological service is composed of:

- sanitary-epidemiological services of the Union Republics;
- the Principle Department of the USSR State sanitary-epidemiological service (management organ);
- the Principle Sanitary-Hygienic Department;
- the Principle Epidemiological Department;
- the Central sanitary-epidemiological station, the Central Plague Control Station, the Central House of Health Education, etc. (sanitary and preventive institutions of the national level);

The sanitary-epidemiological service of the Russian

Federation, Ukraine, Byelorussia, Uzbekistan, Kazakhstan, Kirgizia, Tadzhikistan, Turkmenia, consist of:

- sanitary-epidemiological services of oblasts /province/ (kraj /land/, okrug /region/, ASSR);
- department of sanitary-epidemiological service of the Union Republic (management organ);
- Republican sanitary-epidemiological station, Republican House of Health Education, etc. (institutions of the Republican level).

Sanitary-epidemiological services of Georgia, Azerbaijan, Lithuania, Moldavia, Latvia, Armenia, Estonia have in their composition:

- urban sanitary-epidemiological services (with rayon /district/ division);
- Chief Sanitary-Epidemiological Department of a Union Republic (management organ);
- sanitary-epidemiological departments of Republican, urban (without rayon division) and rayon levels.

Sanitary-epidemiological services of oblasts (ASSR, kraj, okrug) consist of:

- urban sanitary-epidemiological services (with rayon division);
- sanitary-preventive institutions of oblast, town (without rayon division) and rayon levels.

The organizational department of the sanitary-epidemiological service of an oblast (ASSR, kraj, okrug) at the oblast (Republican, kraj, okrug) sanitary-epidemiological station represents an organ of management of the service.

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The sanitary-epidemiological service of a town (with rayon division) consists of sanitary-preventive institutions of town and rayon (urban rayons) levels.

An urban department of sanitary-epidemiological service at the town sanitary-epidemiological station represents an organ of management of the service.

The Principle Sanitary-Epidemiological Service of the USSR is headed by the State Principle Sanitary Physician.

The sanitary-epidemiological service of a Union Republic is headed by the State Principle Sanitary Physician of the Republic.

The sanitary-epidemiological service of an oblast (ASSR, kraj, okrug) is headed by the State Principle Sanitary Physician of an oblast (ASSR, kraj, okrug).

The sanitary-epidemiological service of a town is headed by the State Principle Sanitary Physician of the town.

The Principle Physicians of rayon and town (without rayon division) sanitary-epidemiological stations are entrusted with the functions of State Sanitary Physicians of rayons or towns.

The USSR State Principle Sanitary Physician is nominated by the USSR Council of Ministers.

The Principle State Sanitary Physicians and their Deputies from Union and Autonomous Republics, krajs, oblasts, okrugs and towns, and also the State Principle Sanitary Physicians of towns and rayons are nominated by superior State Principle Sanitary Physicians on the approval of the corresponding Councils of Ministers of Union and Autonomous

Republics and Executive Councils of kraj, oblast, okrug, town and rayon Councils of Peoples' Deputies.

The standard instructions on the organization and structure of a sanitary-epidemiological service in a Republic (oblast, kraj, okrug, town), together with standard instructions on organs and institutions of sanitary-epidemiological service are approved by the USSR State Principle Sanitary Physician.

The organs and institutions of sanitary-epidemiological service include:

- the State Sanitary-Epidemiological Department of the USSR, the Principle Sanitary Hygienic Department, the Principle Epidemiological Department;
- the Republican Sanitary-Epidemiological Department;
- central (Republican, oblast, kraj, okrug, town, rayon (urban and rural rayons)) sanitary-epidemiological stations;
- central (Republican, oblast, kraj) plague control stations;
- disinfection stations;
- Republican (oblast, kraj, okrug, town) Houses of Health Education;
- research institutes of the Union and Republican levels.

Changes in the list of sanitary-preventive institutions constituting the USSR Sanitary-Epidemiological Service are made on the basis of Enactments (Orders) by the USSR Council of Ministers on the proposal of the USSR State Principle Sanitary Physician.

The structure of the sanitary-epidemiological service of a Republic (oblast, kraj, okrug, town), or some of its

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institutions together with the personnel of sanitary-preventive units are established by the State Principle Sanitary Physician within the limits of financial and personnel possibilities of a sanitary-epidemiological service of a given territory, determined by the existing standard personnel norms of the USSR State Sanitary-Epidemiological Service.

Besides, there are sanitary-epidemiological stations in railway transport and in civil aviation.

The network of sanitary-epidemiological stations continues growing and developing. Between 1975-1980 their number increased from 4 388 to 4 509. They employed up to 235 thousand specialists including about 47 thousand physicians.

In its activity the sanitary-epidemiological service is guided by the following basic principles:

1. Supremacy of state interests.
2. Scientific and planned approach to sanitary-preventive and antiepidemic measures.
3. Unity of action in the implementation of sanitary preventive measures in cities and rural areas.
4. Unity of control (management) of sanitary preventive and antiepidemic activities.
5. Participation of all medical organizations in the implementation of sanitary preventive and antiepidemic measures.

It should be underscored that the tasks of the sanitary-epidemiological service at various stages of its development were defined by the state in accordance with the national needs. The forms and methods of sanitary and antiepidemic work

varied depending on the epidemiologic, sanitary and hygienic situation in the country, available equipment and personnel, as well as on the scientific principles underlying the preventive and antiepidemic policy.

At present, the national sanitary and antiepidemic bodies exercise state sanitary supervision aimed mainly at ensuring environmental pollution control (protection of water bodies, soil and atmospheric air), creating healthy working and living conditions for the population, including the conditions for study, rest and leisure, as well as control over the measures intended to prevent diseases and cut down sickness rates.

Taking into account the significance attached by the state to health protection problems, the USSR Ministry of Health fulfils the following functions in relation to sanitary supervision. The Ministry:

- drafts and approves, following the established procedure, national sanitary-hygienic and sanitary-antiepidemic rules and norms;

- exercises control over the observance of the requirements of sanitary-hygienic and sanitary-antiepidemic rules and norms in the construction designs and modernization projects;

- permits the application of new chemical agents, means and methods for the production and processing of foodstuffs, the use of plant and animal growth stimulants, chemical plant protection means, polymers, plastics and other chemical products;

- considers proposals submitted for approval by children's

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institutions and schools as regards the study and work strain on the children and the typical school regimens;

- drafts state standards for drinking water and for water used by communal services;

- coordinates the activity of health protection organizations outside the ministerial system which are connected with the sanitary-epidemiological services of the population;

- implements measures to protect the territory of the USSR from the penetration and spread of quarantine and other contagious diseases and exercises country-wide control over the sanitary-epidemic safety of the population.

Besides, the USSR Ministry of Health exercises state sanitary supervision over:

- the utilization of construction areas assigned for new human settlements and population centres, the long-term planning of industrial enterprises, the commissioning of new dwelling houses, cultural and public utility buildings, industrial facilities and other projects;

- the production, storage and transportation of food products and equipment designed for food processing and cooking;

- measures for prevention and elimination of professional and contagious diseases, sanitary protection of the territory from the penetration and spread of quarantine and other contagious diseases;

- measures for pollution control of surface and underground waters intended for drinking, household, sanitation and other needs, prevention and control of soil and air

pollution with harmful industrial and municipal discharges;

- measures for noise prevention, control and suppression;

- the observance of rules governing the sanitary condition of streets, yards and other territories of population centres.

As is seen from the above, state sanitary supervision encompasses all spheres of the national economy and is aimed at preventing and eliminating the harmful effects of economic activities on human health and at protecting the environment in the interests of public wellbeing.

At present, special significance is attached to the protection of foodstuffs from various chemical and physical pollutants. The importance of this problem is highlighted by the fact that food may carry from one half to two thirds of all pollutants finding their way to the human body from the environment.

Foreign substances include various chemical compositions, toxic metals, nitrates, nitrites, n-nitrosoamines, and, naturally, mycotoxins.

In view of the subject of this issue we shall describe in somewhat greater detail the supervisory measures implemented by the state in the field of food pollution control.

Sanitary-epidemiological stations exercise state sanitary supervision on the territories in their charge over the observance of sanitary-hygienic and sanitary-antiepidemic rules and norms relating to the production, storage and transportation of foodstuffs, the production and use of equip-

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ment intended for food processing and cooking, the production of food containers, packing materials for food products and kitchen utensils, utilization of food products, as well as to the residual quantities of pesticides in agricultural produce.

The main tasks of sanitary-epidemiological stations in the sphere of dietary hygiene are the following:

- state sanitary supervision over the measures aimed at ensuring adequate nutrition of the population and at preventing food poisoning and alimentary disorders;

- analysis of the sanitary condition of the public catering system, planning and implementation of appropriate sanitary measures in accordance with the existing sanitary-hygienic and sanitary-antiepidemic rules and norms.

All state and cooperative food-handling organizations, such as public catering establishments, foodstores, meat, dairy and other food industries, etc., are subject to state sanitary supervision.

Sanitary supervision consists of two main stages: preventive supervision and current supervision.

Preventive supervision is exercised over:

- (a) plots of land assigned for the construction of food factories, as well as over the design, building and modernization of such factories;

- (b) newly built, restructured or modernized food-producing or food-handling enterprises which are to be placed in service;

- (c) design and operation of new process lines, plant, machinery and other equipment including the materials they

are made from, which are designed for the production, storage and utilization of food products;

(d) new types of foodstuffs, utensils, packaging materials, kitchen appliances, as well as protective coatings used with parts of process equipment, refrigerators and trade appliances which come into contact with food.

Current sanitary supervision consists in special and random inspections of food products, assessment of the sanitary conditions of their production and realization through the trade network, as well as in the evaluation of the hygienic condition of the public catering establishments. Inspections, as a rule, include laboratory tests (sanitary-chemical, sanitary-bacteriological and radiological) and instrumental measurements.

The inspectors engaged in current sanitary supervision perform the following tasks:

- check the set-up and maintenance of food-handling facilities for compliance with the acting sanitary-hygienic and sanitary-antiepidemic rules and norms;

- ascertain the observance of hygienic and sanitary-antiepidemic rules and norms pertaining to the manufacture, storage, shipment and utilization of foodstuffs by appropriate agencies;

- check newly-manufactured food-handling items and the equipment in current use (various implements, packaging materials, utensils and the like) against the acting sanitary-hygienic and sanitary-antiepidemic rules and norms;

- check for observance of the established hygienic requirements to food additives used in the production of foodstuffs;

- check up on the terms and conditions of the pesticide treatment of agricultural food crops and animals and ascertain that the residual quantities of pesticides in food products do not exceed the specified limits;

- take measures to prevent food poisoning, acute intestinal infections and alimentary disorders;

- take measures to improve the dietary of the population;

- ensure that prepared foodstuffs intended for mass use undergo the established vitaminisation procedures;

- undertake measures to disseminate the knowledge of dietary hygiene among the population and ensure that the personnel employed in food industries and in the public catering system take a due course of hygienic studies;

- ensure that the personnel engaged in food industries and in public catering undergo appropriate medical examination and preventive inoculation procedures.

Current sanitary supervision is carried out in the form of regular inspections and checks and is aimed at ensuring the fulfilment of sanitary rules, decisions, instructions and orders in effect.

Proceeding from the actual sanitary condition of the objects under current sanitary supervision, as well as from the hygienic conditions of the food-producing facilities, the state sanitary supervision bodies draft, jointly with trade union representatives, plans of sanitation measures and present

them to the administration as an assignment to be fulfilled in the next calendar year. Such plans or assignments are drawn up both for separate enterprises and for whole industries (public catering, meat, dairy and other branches). They define major tasks aimed at improving public services and amenities, creating better production conditions and cutting down sickness rates among the workers.

Plans-assignments or comprehensive sanitation plans usually include the following measures:

- restructuring and enlarging production buildings;
- capital repairs;
- installation of new and repair of existing refrigerating plants;
- installation and repair of sanitary facilities;
- measures on noise control related to production equipment, ventilation and refrigerating plant motors;
- fitting out and repair of service premises;
- repair of heat insulation in installations with abrupt temperature changes;
- reclamation of construction areas, building of driveways, etc.;

The progress achieved in the fulfilment of such plans is checked three or four times per year by specially assigned inspection groups.

One of the important objects of current sanitary supervision is control over the dietary of organized collectives, e.g. the workers of industrial enterprises and construction projects, college and university students and other groups

of adult population, children, teenagers and persons working under harmful conditions, as well as over dietotherapy.

A sanitary physician exercising supervision over the nutrition of industrial and building workers, college and university students and other groups of adult population, proceeds from the known fact that each population group should have its own rational diet depending on profession, age and sex.

As regards the general principles of sanitary supervision, it should be pointed out that all new substances and methods of food processing, as well as synthetic and other materials designed to have contact with foodstuffs are subject to obligatory hygienic examination at the highest state (national) level before they are adopted for general use. It is an important field of activity of public health bodies which requires considerable and highly specialized efforts. Suffice it to mention that the list of food additives allowed for use in the Soviet Union includes over 200 chemical and natural compositions.

The problem of potential hazards to public health resulting from the broad use of plant and husbandry protection means of chemical and biological origin is a source of grave concern for the whole world. Soviet health organizations have compiled a list of maximal permissible levels of pesticides in food products and specified the methods by which the residual quantities of harmful substances can be determined. This list covers 147 different compositions used in the Soviet Union. A whole system of control over residual quanti-

ties of pesticides in food products has been set up. It comprises numerous research institutions which investigate the problems of hygiene and toxicology of pesticides residuals, and study new types of pesticides.

Great significance in the protection of public health is attached to sanitary legislation based on profound scientific investigations.

The USSR Ministry of Health has recently approved up to 2 500 norms and rules drafted by hygienists. They include the maximal permissible levels of chemical substances in the working zone, water bodies, the atmosphere, foodstuffs and soil, the permissible levels for environmental physical factors, as well as the basic methods and criteria for the control over the quality of the environment in terms of microbiological indicators.

All these norms are used in designing and operating industrial enterprises, agricultural complexes and public utility centres.

The investigations carried out by hygienic institutes are aimed at further improvement of the system of hygienic control over environmental factors and further development of the theoretical base for hygienic standardization: the institutes have developed basic schemes and methods for the quantitative evaluation of the combined effect of harmful substances and improved criteria for the assessment of the unfavourable effect of various environmental factors on the human organism, taking account of the remote consequences. This work has been based on the broad use of the latest highly sensitive techniques

of physiological, biochemical, genetic, immunological and morphological methods of investigation. There has been a considerable increase in the scope of scientific investigations into the effects of environmental pollution on human health.

A major task of the Agricultural Programme of the USSR consists in the improvement of food quality. In the framework of the above task the problem of protection of the internal human environment from the penetration of foreign chemical and biological food contaminants, becomes quite urgent. To ensure food safety, the nutritional hygiene in the Soviet Union is characterized by the following directions of activity:

- examination of the level of real contamination of foodstuffs by most dangerous environmental pollutants;
- elaboration of highly sensitive, reliable and available techniques of detection, identification and quantitation of foreign chemical and biological agents in foodstuffs;
- designing of hygienic concentration norms for various staple food contaminants;
- raising the effect of the control system related to food contamination by foreign agents.

The central link of the system ensuring good safety consists in the organization of control of food contamination by noxious chemical and biological agents, characterized by the following aims:

- identification of the initial level of contamination of foodstuffs by various toxic agents and the study of time variations of the above level which allows to determine the

growing pattern of contamination and, thus, assess its danger for the population of a given region;

- identification and confirmation of the effect of measures aimed at the decreased level of food contamination by foreign agents;

- continuous check-up of a food contamination degree, eliminating cases of exceeded concentration norms.

To raise the effect of the State System of Control of food contamination by foreign substances in the USSR, scientific-practical centres (national and Republican) on control of food contamination by certain contaminants: metals, nitrates, nitrites, n-nitrosoamines, polycyclic aromatic hydrocarbons, mycotoxins, etc., were set up on the basis of corresponding research institutes. The above mentioned scientific-practical centres perform the following tasks:

- elaboration and introduction into practice of regional laboratories (sanitary-epidemiological stations) of modern analytic techniques, compilation of detailed methodological recommendations;

- training the personnel of regional laboratories (sanitary-epidemiological stations) to master the above techniques at work places;

- systematic check-up of analytic results, obtained in regional laboratories (sanitary-epidemiological stations) with the aim of raising data reliability rates;

- organization of arbitration analyses in cases of necessity;

- generalization, systematization and analysis of all

data pertaining to the degree of contamination of foodstuffs by foreign agents;

- generalization of the international experience in the field of food contamination control related to certain contaminants;

- working out recommendations for various regions of the country with the aim to decrease the level of food contamination by certain contaminants.

On the basis of the data provided by scientific-practical centres, the central State body - the Principle Sanitary-Epidemiological Department of the USSR Ministry of Health - works out corresponding preventive measures and introduces them into practice through concerned Ministries, responsible for the production, import and realization of food produce.

A number of national scientific-practical centres (head laboratories) on the control of food contamination by foreign substances function within the framework of the Institute of Nutrition of the USSR Academy of Medical Sciences. A WHO/FAO Collaborating Centre on Monitoring of Food Contamination, in particular, by mycotoxins, works on the basis of one of such scientific-practical centres.

The major functions of the WHO/FAO Collaborating Centre are:

- elaboration and unification of techniques of detection, identification and quantitation of mycotoxins in foodstuffs;

- collection, processing and analysis of data related to food contamination by mycotoxins;

- study of toxic properties and some elements of the

mechanism of effect related to mycotoxin contamination;

- scientific guidance of the International FAO/UNEP/USSR Project "Food Contamination Control and Monitoring with Special Reference to Mycotoxins";

- preparation of reports on research and practical activities for WHO.

During 1981-1983, the WHO/FAO Collaborating Centre on monitoring of food contamination by mycotoxins worked out highly sensitive and reliable techniques of detection, identification and quantitation of aflatoxins, patulin, zearalenone, and basic trichothecene mycotoxins in various foodstuffs. The techniques of identification of aflatoxins B₁, B₂, G₁, G₂ in various food products and aflatoxin M₁ in milk and dairy produce, and patulin in fruit and vegetable juices and purees, have been introduced into broad practice of Republican and regional laboratories (sanitary-epidemiological stations).

The WHO/FAO Collaborating Centre and its subordinate institutions and sanitary-epidemiological stations analyzed over 4 000 samples of various foodstuffs and agricultural raw materials and fodder for the presence of aflatoxins. The following types of food products were subject to the analysis: cereals (corn, wheat, rye, barley, rice, oats, sorghum, millet, together with products made from them), legumes (beans, peas, soy, together with products made from them), nuts (peanut, hazelnut, Cashew nut), spices and beverages (black pepper, tea, wort, bear), cacao, coffee beans and powder, and also combined fodder, cotton grist and seeds, etc.

The above scientific-practical centre generalized data on aflatoxin contamination of foodstuffs in Georgia, Kazakhstan,

Kirgizia, Ukraine, Russian Federation and some other regions, and also those coming from other countries.

Most often aflatoxin B₁ was identified in corn grown in the Soviet Union and imported from other countries (over 12% of the studied samples). In 3% of analyzed samples maximal permissible concentrations were considerably surpassed (5.0 µg/kg for all types of food products). High aflatoxin contamination rates are characteristic of peanut samples taken from imported lots (6 out of 21 studied samples). The analysis of aflatoxin M₁ in milk and dairy produce revealed no contamination cases (the MPC of aflatoxin M₁ for milk and dairy produce constitutes 0.5 µg/l).

The study of the occurrence of another mycotoxin - patulin - characterized by manifested toxic, mutagenic and carcinogenic properties and mainly affecting fruits, berries, vegetables and products made from them, revealed the presence of this mycotoxin in 12 out of 70 analyzed samples. Originally patulin was identified in sea buckthorn at high concentrations (54 000 µg/kg /MPC - 50 µg/kg for all foodstuffs and 20 µg/kg - for babyfood produce/).

The results of the analysis of food contamination by mycotoxins are regularly submitted by the Collaborating Centre to a corresponding WHO Department.

One of the major medical problems is the assessment of the harmful effect exerted by some food contaminants on human health. A number of factors largely determining the above effect can be conditionally identified. They are defined by the peculiarities of the contaminant itself; degree of

acute toxicity; manifestation and frequency of remote effects, primarily carcinogenic ones; degree of accumulation in food chains; stability and peculiarities of environmental transformations. They also depend on such food quality indices as the level of contamination, occurrence in basic nutrients, stability and peculiarities of transformation in food products. By their metabolic peculiarities, the existence of highly sensitive population groups (children, the elderly, pregnant women, etc.) they are connected with the characteristics of the object of effect, i.e. man. The level of real stress related to time periods (day, week, month, year, life period) represents a rather significant factor determining the degree of a contaminant's harmful effect on human health. The possibility of a combined effect of individual contaminants should also be considered from the point of view of their summary noxious effect on the human organism.

Analyzing the activity of the WHO/FAO Collaborating Centre on monitoring of food contamination in other countries, one should underline their role in the creation of a global system realizing control of food contamination by foreign agents, in the elaboration of standard norms and methodological approaches.

The questions of control improvement are regularly discussed at the sessions of the FAO/WHO Programme on Food Contamination Control. In particular, at the end of 1983, progress reports on the activity of such centres in Australia, Brazil, China, Federal Republic of Germany, India, Ireland, Mexico, Netherlands, Qatar, USSR, Sudan, Thailand, USA, were

presented and a document containing basic recommendations in the field of food contamination control was prepared at one of such sessions.

Naturally, UNEP is also largely involved in the improvement of coordination in the above field.

In conclusion, it is necessary to underline that joint efforts of the international organizations should lead to further improvement and development of the sanitary-epidemiological service.

It is no doubt that the experience of the Soviet Union in the organization of state sanitary supervision will assist the developing countries in the task of prevention of diseases and improvement of health of the population.