

**MEETING OF THE STATES PARTIES TO THE
CONVENTION ON THE PROHIBITION OF
THE DEVELOPMENT, PRODUCTION AND
STOCKPILING OF BACTERIOLOGICAL
(BIOLOGICAL) AND TOXIN WEAPONS AND
ON THEIR DESTRUCTION**

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**Means of enhancement of national capabilities for surveillance of, and response to, natural
and deliberate outbreaks of human, animal, and plant infectious diseases**

Submitted by Poland

1. The Republic of Poland enhances its national capabilities to respond to an alleged use of biological weapons through strengthening its military, public health, veterinary, and phytosanitary preparedness and surveillance systems as well as through the improvement of the detection, diagnosis, and mitigation competence. Herein some of the measures taken in Poland are presented that can be used to counter both natural and deliberate outbreaks of human, animal or plant infectious diseases.

BIODEFENSE SYSTEM IN THE POLISH ARMED FORCES

2. By the end of 2001 seven military Biological Response Teams (BRTs) were organized and equipped. The tasks of these teams include collection and safeguarding of suspected dispatched materials, preliminary on site detection of pathogens (with use of luminometric, immunologic, and genetic assays), and transport of the samples to reference laboratories. The Military Institute of Hygiene and Epidemiology (MIHE) is the highest level reference tier of the bio-defense system and research center within the PAF. Its Biological Threat Identification & Countering Center (BTICC) which houses the Biosafety Level 3 (BSL-3) laboratory carries out final (confirmed) identification of highly dangerous biological agents. Therein, new protective measures against such agents are elaborated and tested, including new disinfectants and decontaminants as well as equipment for collective and individual protection. Epidemiological surveillance system, supervised by the MIHE Dept. of Microbiology & Epidemiology monitors infectious diseases in the military troops, prepares *routine* and *immediate* reports for the Polish Surgeon General Office as well as for the NATO Epidemiological Reporting Center (NERC) at Preventive Medicine Dept. in the German Armed Forces Medical Office, Bonn, FRG. Finally, MIHE organizes and participates in training of medical

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core officers and other key personnel (military and civilian) responsible for organization, supervision, and execution of the NBC defense system in Poland.

POLISH STATE SANITARY INSPECTION

3. The State Sanitary Inspection is responsible for epidemiological surveillance and control of communicable diseases in Poland. It comprises 312 county (poviat) and 16 province (voivodship) sanitary-epidemiological stations (SES; altogether, these stations cover the whole territory of Poland according to its administrative organization). Directors of the stations serve as the state sanitary inspectors entitled to issue decisions that can limit personal rights of the citizens in order to prevent the spread of a communicable disease. The voivodship SES are directly subordinated to the Chief Sanitary Inspector. This ensures fast and coordinated response in case of an emergency. According to the Communicable Diseases and Infections Act, which constitutes a legal framework for the epidemiological surveillance in Poland, physicians and paramedics are obliged to notify (within 24 hours) the nearest SES of a diagnosed or suspected case(s) of a communicable disease. The list of the reportable diseases consists of 78 ailments and clinical syndromes (including extremely dangerous infections presumably caused by a bioterrorism attack). The Act complies with the European System of Surveillance (the Decision 2119/98/EC). The anti-epidemic divisions of the poviat SES perform current statistical analyses of the incidence of particular diseases in the area of their jurisdiction and forward these data to the higher-level (voivodship) SES as well as to the Chief Sanitary Inspectorate and the National Institute of Hygiene at the central level. According to the law, upon receiving a report of one case of a suspect infectious disease any state sanitary inspector is obliged to start epidemiological investigation and implement preventive and control measures, as appropriate. The action taken in response to the notification depends on the disease. In general, it consists of professional and formal verification of the report, collection of important epidemiological data, and, if necessary (eg. in case of alert diseases, epidemic outbreaks), transfer of the information to a higher-level governmental institutions. In case of a disease dragged from abroad (which rarely occurs in Poland or is characterized by a particularly severe clinical course) the inspector prepares an individual report based on the results of clinical/epidemiological investigation.

4. Furthermore, regulation of the Chief Sanitary Inspector No 26/2003 pinpoints diseases, syndromes, and particular incidences that should immediately trigger the Early Warning and Response System of the Chief Sanitary Inspectorate. These include: botulism, cholera, plague, Q fever, smallpox, tularaemia, pulmonary or intestinal anthrax, viral hemorrhagic fevers, syndromes suggestive of a dangerous infectious disease as well as intoxications or other diseases presumably caused by a bioterrorist attack. Such cases must be reported immediately (using the emergency mobile phone number) to the round-the-clock duty officer at the voivodship SES who informs the state sanitary inspector and forwards the information to the Chief Sanitary Inspectorate. Contingency plans for such a crisis situation have been elaborated and implemented for the sake of the sanitary inspection. These include a list of medical personnel and other first responders to be vaccinated if a case of a smallpox was detected. Finally, a 24-hour active contact point at the European Union Early Warning and Response System was established.

DIAGNOSTIC NETWORK

5. Independently of reporting of new cases by physicians, the Communicable Diseases and Infections Act imposes on directors of all the diagnostic laboratories an obligation to report identification of one of the 42 indicated infectious agents. This provision of the Act is aimed at tightening the bio-defense system, increasing its sensitivity and accelerating circulation of the information - the two factors particularly important in case of an extremely dangerous disease that can result from a bio-terrorist attack.

6. Basic-standard microbiological laboratories in all the administrative districts of Poland (296 in total) constitute the first level of the qualified diagnostic network. At all 16 voivodship SES, microbiological laboratories are being upgraded to the BSL-2 level and ten of them to BSL-2plus (i.e., complete with the BSL-3-level glove-box). In addition, ten microbiological laboratories located in a number of medical institutions meet the requirements of the BSL-2+. The highest reference tier for final identification, investigation, and archiving of the most dangerous bacterial pathogens in Poland is the BSL-3 microbiological laboratory at the Biological Threat Identification and Countering Center, the detachment of the Military Institute of Hygiene & Epidemiology, in Pulawy. For other pathogens, the reference diagnostic centers are the National Institute of Hygiene, and the National Institute of Public Health in Warsaw, as well as the Institute of Maritime and Tropical Medicine in Gdynia.

ELECTRONIC SYSTEM FOR EPIDEMIOLOGICAL SURVEILLANCE (GISK-NET)

7. The system enables effective reporting and exchange of data about infectious diseases between the voivodeship, powiat, and border Sanitary-Epidemiological Stations (SES) and the Chief Sanitary Inspectorate. The pilot system, called GISK-NET, currently covers the Chief Sanitary Inspectorate, the National Institute of Hygiene, the Food and Nutrition Institute, and all the SES in three selected voivodeships. Communication within the system is secured by the data transmission network PESEL-NET, and by the end of 2004 other province and county SES are to be connected to the system via the Polpak-T datalinks. The software for the system is developed using the Lotus Domino and Lotus Notes bases. The system enables a user to feed in a detailed information about an individual case of an infectious disease, to store and automatically transfer this information to a higher level of the State Sanitary Inspection, to automatically send notification about the extremely dangerous diseases as the Lotus Notes mail to all the users. Additionally, the system provides for a review of all the stored information, its supplementation with new data, as well as statistical analysis. Plans are afoot to further develop the pilot system so as to incorporate all the State Sanitary Inspection departments in other voivodeships into the country-wide GISK-NET. Recently, a possibility for increasing the sensitivity of the system has popped out: appropriate computer hardware and dedicated software for all the SES will be provided under the Phare program (in operation until 2006). The software prepared for the surveillance system, apart from facilitating the input and control of the data, should allow for performing the more in-depth epidemiological and statistical analyses. Likewise, computerized mapping of the disease cases and use of the general database would significantly help to detect the dispersed outbreaks.

TREATMENT CAPABILITIES

8. Twenty five hospital wards for the treatment of communicable diseases have been appointed and work aimed at quantitative and qualitative improvement of their capabilities, including the establishment of new high-containment Meltzer type rooms, is under way.

EMERGENCY STOCKPILES

9. Emergency materials such as vaccines, antibiotics, and individual protection items are being stockpiled. Pursuant to art. 10, sec. 2 of the Law on State Reserve Supplies and Compulsory Fuel Stockpiles, the Agency of Material Reserves, subordinated to the Minister of the Economy, is the appropriate authority for pharmaceuticals and medical products (including antibiotics). Antibiotics are stockpiled in order to counter the consequences of a bioterrorist attack or other emergency caused by the increased incidence of infectious diseases. The Reserve Law also provides that the Minister of Health is responsible for the creation of repositories of pharmaceuticals and other medical products including those capable of protection against and/or curing the diseases caused by a possible bioterrorist attack. To this end, a certain amount of vaccine against smallpox has been purchased.

FOOD SAFETY

10. A review of the national policy on food safety was described in a document "Food Safety Strategy" published in February 2002 and approved by the European Union in the accession negotiation process. The interministerial food safety system is supervised, on behalf of the Minister of Health, by the Chief Sanitary Inspector. Regulations in this area have already been harmonized with the respective EU directives and are being continuously updated. On January 1, 2003, *the Rapid Alert System for Food & Feedstuff (RASFF)* based on electronic means of communication was launched with the National Point of Contact located at the Chief Sanitary Inspectorate. The state-supervised food assessment and monitoring is carried out in coordination with other control institutions, based on the national plan of sampling of food and feed. Information about physical, chemical, and biological risk factors in food and feed has been widely distributed. The Monitoring Council, composed of the academia and administration representatives provides the scientific basis for calculating the risk posed by food and feed. In this regard, the laboratory testing capabilities are being continuously enhanced. Special software for the Food Safety System is under development as an aid in the processes of planning, reporting and management of the food safety system, collection of information about food operators, data archiving, and communication among the system members.

POLISH VETERINARY INSPECTION

11. The Polish Veterinary Inspection is responsible for protection of the health of the animals and animal-derived food products in order to ensure security to the public. The Inspection consists of 303 regional county units – the Poviats Veterinary Inspectorates. In addition, 16 Provincial (Voivodship) Veterinary Inspectorates serve as the control units. The overall activities of the

Inspection are being supervised and overlooked by the Chief Veterinary Office which issues instructions and guidelines and also participates in consultations during preparation of drafts of the relevant national and international legal regulations.

Protection of animal health.

12. According to the Act of March 11, 2004, on protection of the animal health and prevention of the animal infectious diseases (Journal of Law Nr 69 item 625), in case of a suspicion of an animal infectious disease which is required by the Act to be prevented and mitigated (altogether, 27 entities), the management of the Veterinary Inspectorates is obliged to implement procedures aimed at confirmation or exclusion of the suspicion. If the case(s) is confirmed, measures are taken to contain the epidemic, detect the infection source and prevent re-emergence of the disease in the future. In view of the fact that Poland is not only a member of the European Union Community but also a signatory and member of the World Organisation for Animal Health (OIE), the diseases controlled under the Polish Act are same as those defined both by UE and OIE laws.

Communication systems.

13. Using the Veterinary Inspectorate notification system information about confirmed cases of a notifiable animal disease can be transferred to the EU and OIE authorities and institutions within 24 hours. For this purpose, the *Animal Disease Notification System – ADNS* (European Community System) and the *Animal Health Emergency or Follow-up Report* (OIE notification system) information exchange systems are used. For food and feed safety surveillance the Polish Veterinary Inspectorate is connected to the *Rapid Alert System for Food & Feedstuff – RASFF*. In the animal health surveillance system representative samples are collected and tested in the screening assays. Samples yielding dubious result are transferred to and investigated at Polish National Veterinary Institute, which is a national reference laboratory for such purposes.

14. For countering outbreaks of diseases which may result in vast economic losses or cause significant harm to the public health contingency plans are prepared for each administrative level of the Inspectorate. These plans consist of decision algorithms and procedures for different crisis scenarios such as the outbreaks of, among others, foot and mouth disease (FMD), swine vesicular disease (SVD), classical swine fever (CSF), African swine fever (ASF), bovine spongiform encephalopathy (BSE). There are plans afoot to establish the early warning and laboratory data notification system at the central level.

THE STATE PLANT HEALTH AND SEED INSPECTION SERVICE (SPHSIS)

15. SPHSIS is a national authority responsible for supervising plant health and production, assessment, and marketing of seeds, as well as for the reduction of the risk associated with the use and marketing of plant protection products. The Inspection consists of the Head Office (which is a seat of the Chief Inspector stationed in Warsaw), 16 Provincial (Voivodship) Inspectorates, 270 field units, and 12 border inspection posts. The Chief Inspector is responsible for the international relations which include, among others, co-operation of the Service with the European and other international organizations dealing with plant health and seeds, such as FAO, WTO, SPS

Agreement, IPPC, ICPM, EPPO. The Chief Inspectorate also provides the European Commission and Member States with any required information concerning plant health and seeds.

16. In order to preserve an open but controlled movement of plant products at the required level of phytosanitary security all the subjects (producers, entrepreneurs) are being registered and the “plant passports” are being issued. The list of quarantine organisms subject to prevention has been developed that justifies strict control measures taken in case of only suspicion of occurrence, like tracing of transmission routes, free zone demarcation and surveillance. Sanitary inspection of the borders is carried out at the 16 border passes (air, marine, and ground). Notifications about transfer denials are forwarded to EU, EPPO, and countries of the transfer origin; this will soon be accomplished via the system compatible with the EU EUROPHYT. SPHSIS also participates in the *Rapid Alert System for Food & Feedstuff*. Security of the research is assured by issuing permissions for introduction, cultivation, and stockpiling of the quarantine organisms and contaminated or not fulfilling health requirements plant materials as well as those prohibited from import. The activities of the Inspection are supported by sixteen state diagnostic laboratories which continually up-grade their technical capabilities, including testing of the genetically modified organisms (GMO) and new pesticides. Upon our accession to the European Union the integrated computerized system was set up consisting of seven modules supporting the plant health control, transfer of plant products between the EU member states and the third parties, the undertaken phytosanitary measures as well as the turnover and use of pesticides.
