Ninth Review Conference 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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Item 11 of the agenda

Consideration of issues identified in the review of the operation of the Convention as provided for in its Article XII and any possible consensus follow-up action

Certain measures by the Russian Federation in the implementation of Article X of the BTWC in 2017-2022

Submitted by the Russian Federation





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Introduction

The Russian Federation has consistently strengthened cooperation with foreign countries on the prevention and control of infectious diseases making a global contribution to the implementation of Article X of the BTWC.

More than 60 countries receive and use Russian test-kits, vaccines, mobile laboratories, as well as apply Russian methods of planning and organizing anti-epidemic measures.

Specialists from partner countries participates in dozens of Russian programs and scientific research studies in the field of prevention and control of measles and rubella, influenza, HIV/AIDS, plague and tropical diseases, as well as prevention of development of antibiotic resistance in microorganisms.

Since 2017, Russia's total contribution to providing assistance to partners in these areas has exceeded 5 billion rubles (~\$82.4 million) on a bilateral basis and more than \$40 million through the programs of relevant international organizations.

A distinctive feature of the Russian assistance is the development of partner countries' own capacities to combat epidemics and ensure biological safety, including assistance in developing infrastructure, creating national sanitary and epidemiological services, as well as personnel training.

Training centers for foreign specialists have been established in Moscow, St. Petersburg, Saratov, Vladivostok, and other cities of the Russian Federation. Every year hundreds of experts from the countries of the Eurasian Economic Union, the Commonwealth of Independent States, Africa and Southeast Asia improve their qualifications here.

This document contains the key Russian programs of assistance to foreign countries in the prevention and control of infections from 2017 to 2022. The main performer of the programs is the Russian state sanitary and epidemiological service — Rospotrebnadzor – which celebrates its 100th anniversary in 2022.

Material, technical and methodological support to Eastern European and Central Asian Countries in the Implementation of the International Health Regulations (2005) (IHR)



Implementation period: 2017–2022

Countries participating in the project: Azerbaijan, Armenia, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Turkmenistan, Uzbekistan

Implementation mechanism:

- a contribution to WHO to implement measures to assist countries in implementing the IHR;
- material and technical assistance as well as scientific and methodological support to the countries of Eastern Europe and Central Asia (EECA), strengthening the system of monitoring and rapid response to health emergencies.

Tasks:

- creating and maintaining a unified system of rapid response to health emergencies in the partner countries;
- creating a unified epidemiological information space for the EECA countries;
- strengthening the human resources capacity of services for ensuring the sanitary and epidemiological well-being of the population;
- conducting joint researches;
- o conducting international conferences on responding to health emergencies.

Events:

- 5 microbiological laboratories for rapid diagnosis on the basis of a motor vehicle, complete with laboratory equipment were handed over (Kazakhstan, Uzbekistan, Kyrgyzstan - 2 laboratories, Tajikistan);
- 18 workplaces were equipped (Kyrgyzstan 3, Armenia 3, Belarus 3, Uzbekistan - 3, Azerbaijan - 2, Kazakhstan - 2, Tajikistan - 2);
- "Monitoring and Management of Emergency Situations in EECA" and "Monitoring of Dangerous Infectious Diseases in EECA" information computer systems were developed;
- an electronic training manual "Basic principles of organization and functioning of Rospotrebnadzor mobile antiepidemic units" and "System of assessment of training level of specialists in the field of epidemiology, laboratory diagnostics and biosafety" was developed;
- a new mobile laboratory for indication and monitoring was developed;
- I0 international training sessions of rapid response teams were conducted, with a total coverage of more than 500 people, including 6 bilateral (in 2022 in Armenia, Belarus, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, and 4 training sessions with participation of representatives of most CIS countries (Saratov, 2019, 2022; Kazan, 2021; Mineralnye Vody, 2022);
- about 500 specialists from EECA countries were trained;
- 3 research projects were carried out;

Total funding:

- 3 face-to-face meetings of the Coordinating Council on the Sanitary Protection of Territories of the CIS Member States from the Import and Spread of Particularly Dangerous Infectious Diseases were held;
- 3 monographs and 1 practical guide were published.

Results:

- methodological, technological and human resource capacities have been strengthened; national capabilities of partner countries to control infectious diseases and respond to infectious threats have been enhanced;
- a unified system of monitoring and rapid response to health emergencies has been formed, uniting more than 15 specialized institutions of 9 CIS countries.



449,7 million rubles (~ **\$ 7,4** million) contributions to WHO – **\$ 8,9** million

The Program of cooperation with foreign countries to reduce the risks of importation and spread of plague from trans-border natural foci



Implementation period: 2017–2022

Countries participating in the project: Armenia, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, Mongolia, China

Tasks:

- strengthening prevention and control measures for plague, including those in transborder focal areas in order to reduce the risks of epidemics;
- increasing the level of epidemic preparedness of specialized institutions in foreign countries;
- improving interstate cooperation on plague epidemiological well-being.

- 4 microbiological laboratories for rapid diagnosis on the basis of motor vehicles, complete with laboratory equipment were provided to Kazakhstan, Uzbekistan, Tajikistan, Mongolia;
- joint epizootological inspections of natural foci of plague in Mongolia, Kazakhstan, Armenia, Kyrgyzstan, Tajikistan, Uzbekistan and China were carried out;
- joint training sessions were held with the introduction of a suspected plague patient at checkpoints across the state border between Russia and Kazakhstan, Russia and Mongolia;

- 4 joint research projects were carried out;
- over 200 specialists have been trained in plague prevention, diagnosis, and epidemiological surveillance of natural foci;
- Russian laboratory and disinfection equipment, test systems, consumables and personal protective equipment have been supplied;
- 3 interstate conferences have been held;
- I monograph has been published, a database of the natural foci of plague located in Russia, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan has been developed.

- unified algorithms of epizootological monitoring and prevention of plague have been introduced;
- national capacities of partner countries in the field of monitoring in the natural foci of plague, detection and rapid response have been strengthened;
- strengthened international cooperation in ensuring epidemiological well-being against plague, increased effectiveness of epidemiological surveillance and control of plague in trans-border natural foci.



Russian-Guinean scientific and technical cooperation on infectious disease control in the Republic of Guinea



Implementation period: 2017-2022

Task:

 to strengthen the national scientific, human and laboratory capacities of the Republic of Guinea

- since 2017 the Russian-Guinean research center has been functioning steadily with Russian specialists work here on a rotation basis;
- expedition work was organized. About 60 expeditionary trips were made, including 3 trips to Nzerekore (the second most populous city in Guinea);
- 19 scientific researches were carried out to improve epidemiological surveillance of particularly dangerous and socially significant infections in Guinea;
- boundaries of natural foci of dangerous infectious diseases and their main carriers and vectors (Crimean-Congo hemorrhagic fever, leptospirosis, Q fever, etc.) were determined;
- over 170,000 studies of clinical and field material from all prefectures in Guinea were conducted. Screening for HIV, hepatitis B and C is being done promptly;
- starting from 2020, integration of the Russian-Guinean Center into the national laboratory network for COVID-19 diagnostics:
- the laboratory was the first one in the country to be equipped with test-kits for the diagnosis of a new coronavirus infection; the first case of COVID-19 has been identified here; the Center has been accredited at the national level;
- in 2020, a second laboratory was established on the basis of a mobile microbiological laboratory for rapid diagnostics at the UC RUSAL hospital in Fria;
- in 2021, during the Ebola outbreak, diagnostic studies were conducted and the genetic makeup of the Ebolavirus that caused the 2021 outbreak was studied. Assistance was provided in sequencing the viral genomes of the SARS-CoV-2 virus;
- development of the Guinean system for the control and surveillance of infectious diseases;

- 4 monographs were published;
- consumables, analytical equipment, transport, including mobile laboratories, were supplied.

- More than 20 new drugs have been created for the diagnosis, prevention and treatment of dangerous infectious diseases (malaria, Lassa fever, Rift Valley fever virus, Ebola fever, Marburg fever, etc.);
- 6 platforms for rapid creation of vaccines against especially dangerous viral infectious diseases (Marburg and Ebola fevers) have been developed;
- drugs for the diagnosis of hepatitis B, C and HIV that are registered and used in Russia showed its effectiveness in Guinea;
- advisory and methodological assistance was provided during the measles epidemic in Guinea in 2021-2022 - more than 5,000 samples from patients were examined;
- assistance has been provided in the diagnosis of COVID-19. More than 25,000 samples have been examined;
- about 1,000 Guinean specialists have been trained in 15 advanced training programs. More than 50 specialists have been trained in Russia in scientific institutions of Rospotrebnadzor. 30 educational films about laboratory research methods, zoological work, and biological safety have been created and implemented.



Total funding:



Modernization of mobile antiepidemic units and strengthening of the national, regional, and global network of response to emergency situations related to dangerous infectious diseases



Implementation dates: 2018–2021

Countries participating in the project: Armenia, Kyrgyzstan, Mongolia, Uzbekistan

Tasks:

Strengthening the international network for responding to epidemics of dangerous infectious diseases, the consequences of natural disasters and humanitarian catastrophes by strengthening the logistical capacity of partner countries and improving specialized antiepidemic units.

- a pneumatic mobile laboratory was developed and patented;
- modernization of mobile laboratories was carried out;
- 4 mobile laboratories based on KAMAZ were sent to Armenia, Kyrgyzstan, Mongolia, and Uzbekistan; specialists were trained to work in mobile laboratories;
- the personnel reserve of the partner countries were prepared.

- increased capacity of the global system to respond to outbreaks of infectious diseases through the use of Russian innovative technologies;
- improved efficiency of mobile units to prevent and respond to sanitary and epidemiological emergencies in Russia and abroad;
- strengthened regional capacities to respond to health emergencies in the EAEU, CIS and SCO.



Program of assistance to the Socialist Republic of Vietnam on combating threats of infectious diseases, improving hygienic surveillance of health-hazardous chemicals



Implementation period: 2017–2022

Tasks:

- strengthening of scientific, human and laboratory capacities of Vietnam to counter the threats of infectious diseases;
- increasing the readiness of the Southeast Asian region to respond to outbreaks of infectious diseases;
- ensuring the smooth functioning of the reference base for monitoring the epidemiological situation in Southeast Asia;
- strengthening regional cooperation within joint expert groups, scientific and practical forums of various formats.

Events:

I5 joint research projects on epidemiology and hygiene were conducted;

- 57 joint scientific expeditions to various provinces of Vietnam were organized in order to monitor the situation on infections;
- about 300 Vietnamese specialists in prevention, control, laboratory diagnosis of infections, biosafety, and improved hygienic surveillance were trained;
- a mobile laboratory, laboratory equipment, sets of consumables and personal protective equipment were supplied.

- the system of sanitary and epidemiological surveillance and food safety in Vietnam has been improved;
- the efficiency of the functioning of the Joint Russian-Vietnamese Tropical Research and Technology Center has been improved;
- a system has been built for the rapid exchange of information between Russia and Vietnam on the incidence and detection of unsafe food products.



Total funding:



Scientific cooperation with countries of Eastern Europe and Central Asia to assess herd immunity to a new coronavirus infection



Implementation dates: 2021–2022

Countries participating in the project: Armenia, Belarus, Kyrgyzstan, Tajikistan

Tasks:

- objective dynamic assessment of seroprevalence to SARS-CoV-2 in populations of different age and occupational groups in partner countries during the COVID-19 pandemic;
- prognosis of morbidity dynamics and planning of preventive measures;
- indirect assessment of infection factors;
- study of the formation of postinfection and postvaccination humoral immunity to SARS CoV-2.

Implementation mechanism:

- developing an algorithm for conducting population studies, summarizing and analyzing the results;
- adapting the longitudinal cohort study program with age stratification to assess population immunity to SARS-CoV-2 to the conditions of the countries participating in the study;
- providing a cloud service for the formation of a cohort of surveyed volunteers, monitoring the research process in real time, analyzing the results;
- supplying consumables and Russian EIA test-kits to assess herd immunity and ensure the logistics of the study;

organizing educational seminars and trainings for health care professionals on the methodology of population serological studies and laboratory staff.

Events:

- 4 stages of population research in Belarus (2021-2022);
- 9 3 stages of population research in Kyrgyzstan (2021-2022);
- 2 stages of population research in Armenia (2022);
- 1 stage of population research in Tajikistan (2022);
- 2 articles were published, 2 more articles are prepared for submission to foreign periodicals;
- 2 PhD studies in Epidemiology are in progress.

- a methodology has been developed and an effective system of serological monitoring to assess the level of herd immunity has been developed and put into practice to forecast the development of the epidemiological situation, make recommendations, and plan specific and nonspecific preventive measures;
- new scientific data on the immunity status of the population in Eastern Europe and Central Asia have been obtained (more than 60,000 volunteers were surveyed);
- strengthening of cooperation between the countries of Eastern Europe and Central Asia in the field of sanitary and epidemiological well-being.



Reducing the risks of antimicrobial resistance in the Eurasian region



Implementation dates: 2017-2022

Countries participating in the project: Armenia, Belarus, Kazakhstan, Kyrgyzstan, Tajikistan

Tasks:

- reducing the risks of developing antibiotic resistance in public health and agriculture;
- strengthening the capacity of national laboratories in Eastern Europe and Central Asia to prevent the proliferation of antimicrobial resistance.

Events:

- a targeted contribution to the United Nations Food and Agriculture Organization (FAO) to help partner countries develop and implement national strategies and action plans to reduce the threat of antimicrobial resistance;
- establishment of a Reference Center for monitoring antibiotic residues in food raw materials and food products and antibiotic resistance of bacteria;
- providing scientific, methodological, material and technical support to partner countries, including the supply of laboratory equipment, reagents for in vitro diagnostics and training of foreign specialists.

- 9 3 international conferences on food safety and antimicrobial resistance have been held;
- a Reference Center of Rospotrebnadzor for monitoring antibiotic residues in food raw materials and food products and antibiotic resistance of bacteria has been created;
- 2 methodological documents on sample preparation and research to determine the antibiotic residues in food products have been developed;
- the "Antibiotic Monitoring in Food Products" software module has been developed and implemented in the project countries;
- 9 working visits to partner countries to provide scientific and methodological assistance have been made;

- about 500 specialists from partner countries have been trained, including jointly with FAO;
- 20 units of laboratory equipment and over 6,500 reagent kits for in vitro diagnostics have been supplied;
- over 5,000 microorganisms isolated from food products have been studied.

otal funding:	369,1 million rubles (\sim \$ 6,1 million) contribution to FAO – \$ 3,3 million
	otal funding:

Collaborative Research on Infectious Diseases in Eastern Europe and Central Asia



Implementation period: 2017-2022

Countries participating in the project: Azerbaijan, Armenia, Belarus, Kyrgyzstan, Tajikistan, Uzbekistan

Implementation mechanisms:

- material and technical support for infectious disease diagnostic laboratories in Eastern Europe and Central Asia;
- supply of mobile medical and diagnostic complexes, equipment and consumables, organization of work, monitoring and quality assessment;
- training of specialists;
- joint epidemiological studies;
- joint scientific and practical events.

Tasks:

- to contribute to strengthening of the state epidemiological surveillance systems of the partner countries;
- to improve the system for collecting and interpreting epidemiological data, including on resistant and genetically diverse strains of HIV;
- to increase the ability of epidemiological surveillance systems to receive and use the information necessary for the implementation of effective anti-epidemic measures;
- to contribute to strengthening of infectious diseases control among labor migrants and members of their families in partner countries;

- to contribute to strengthening of infectious diseases control among labor migrants and members of their families in partner countries;
- to form sustainable professional cooperation within the Eurasian region between institutions responsible for combatting HIV/AIDS, including governmental and non-governmental organizations;
- to implement effective evidence-based preventive programs.

Events:

- 21 meetings for 350 specialists from partner countries; 4 training seminars for 38 specialists in laboratory diagnostics;
- 73 trips to partner countries to provide methodological assistance;
- 8 scientific research projects;
- 2 international conferences on HIV/AIDS and other infectious diseases;
- 2 international scientific symposiums;
- 13 mobile medical and diagnostic complexes transferred, their work systems adjusted, material and organizational support for their functioning provided.
- 4,000 units of sterilization equipment delivered to partner countries.

- skills for monitoring the circulation of resistant strains were developed, as well
 as a system of measures to prevent their emergence and spread;
- a unified tracking operating system and database for the HIV resistance tracking center in partner countries has been created;
- for the first time in the partner countries, a study of single-nucleotide polymorphisms was conducted, as a result of which alleles that both increase and decrease the risk of tuberculosis development in HIV-infected patients were found;
- the human and material and technical capacities of the laboratories of the AIDS Centers in the partner countries have been strengthened;
- the human and material and technical capacities of the laboratories of the AIDS Centers in the partner countries have been strengthened;
- 6 recommendations for implementation in partner countries have been prepared;
- control over infectious diseases among labor migrants and members of their families in partner countries has been increase;
- on the basis of mobile diagnostic and treatment complexes an effective system of express testing for HIV and viral hepatitis has been created;
- 1,500,000 people were tested for HIV, viral hepatitis B and C, and other infectious diseases with the use of mobile treatment and diagnostic complexe;
- the number of cases of nosocomial infection in Central Asia has been reduced;

- the diagnostic base of rural medicine and health education of the population in the mountainous and hard-to-reach areas of the partner countries has been strengthened;
- 2,740 medical and technical specialists of mobile medical and diagnostic complexes trained by Russian experts;
- 1,450 HIV-infected adults and their families and 416 HIV-infected children and adolescents have received their social support.



Support for Eastern European and Central Asian countries in eliminating measles and rubella



Project implementation dates: 2018–2020

Countries participating in the project: Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan, Turkmenistan, Mongolia, Serbia

Implementation mechanism:

- monitoring measles and rubella;
- improvement of the methodological base;
- material and technical strengthening of the laboratory base;
- training of specialists in partner countries;
- supply of Russian measles vaccine.

Tasks:

- improvement of epidemiological surveillance of measles and rubella in partner countries;
- enhance professional skills of specialists involved in the implementation of the WHO European Program for the measles and rubella elimination in partner countries.

- analysis of measles and rubella morbidity, screening studies to assess population immunity, research into the specifics of vaccine prophylaxis in the partner countries, and genotyping of the infectious agents were carried out;
- regional meetings, training seminars, field trainings were held on improving surveillance, laboratory diagnostics and molecular genetic typing of measles and rubella viruses -710 specialists were trained;
- more than 300 sets of Russian EIA test kits, 238 units of laboratory equipment, as well as consumables and reagents necessary for the operation of this equipment were supplied;

- I00,000 doses of Russian measles vaccine were provided to Belarus and Kyrgyzstan;
- establishment and equipment of the diagnostic laboratory for measles and rubella at the Institute of Virology, Vaccines and Sera "Torlak" (Belgrade, Serbia);
- a monograph was published.

