

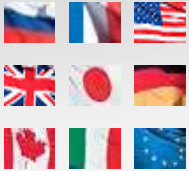


SURVEILLANCE AND LABORATORY DIAGNOSTICS OF INFECTIOUS DISEASES IN THE RUSSIAN FEDERATION

**FEDERAL SERVICE OF SURVAILLANCE IN THE FIELD OF CONSUMER
RIGHT PROTECTION & HUMAN WELFARE, RUSSIA**

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Russia priorities of the international cooperation



G8 decisions on the infectious diseases control
(*Russia, 2006; Germany, 2007; Japan, 2008 z*)



Obligations on of the international medicosanitary rules
(*2005*)



Activity within the framework of the WHO European office



Program of cooperation in the field of sanitary protection of territories of states-participants of the CIS from import and distribution of especially dangerous infections



Cooperation with other international organizations



G8 decisions on infectious diseases control
(Russia, 2006)



International Med-Sanitary rules coming into force
(2005)

**STRATEGY AND TACTICS
OF INFECTIOUS DISEASES CONTROL**



Global strategy of infectious diseases control

1

Application of modern information, forecast-modelling, monitoring, diagnostic, preventive, industry technologies and system of a professional training

2

Creation and maintenance of the technological basis for the prevention, early revealing, operative reaction and liquidation of biological incidents

3

Development of organizational, methodical, tactical, legal questions



Russia tactics on realization of decisions of Summit and IHR (2005)



Strengthening of material base of Stationary laboratory networks of the State sanitary epidemiological surveillance system



Mobile specialized anti-epidemic brigades modernization



The infectious (parasitic) diseases demanding carrying out of actions on sanitary protection of Russia

Nosological form
Smallpox
The poliomyelitis caused by the wild polyovirus
The human flu caused by a new subtype
Heavy sharp respiratory syndrome
Cholera
Plague
Yellow fever
Lass fever
Disease, caused by a Marburg virus
Disease, caused by a Ebola virus
Malaria
Western Nile Fever
Crimea-Congo hemorrhagic fever
Dengue fever
Rift Valley Fever
Meningitis



Laboratory tests of human and environmental materials to identify dangerous infectins

There are 69 laboratories to diagnose especially dangerous infectious diseases in Russia. They are based in the of Hygiene and epidemiology centers (Rospotrebnadzor).

Year	The number of tests
2005	657 947
2006	691 376
2007	750 000

Organizational, scientific and material strengthening of a national laboratory network

Introduction in practice of the technologies based on the causative agent` genome and proteome analysis, multiplex, microvolumetric methods



Diagnostic, prophylaxis and treatment methods and means based on nanotechnologies and nanomaterials, introduction in practice of public health services

Laboratory network for indication, specific diagnostics, typing and monitoring of dangerous infectious (parasitic) causative agents

Regional centers on monitoring of infectious and parasitic diseases` causative agents I-IV groups of pathogenicity (Russian classification)

Centers of indication and diagnostics in Federal districts of Russia

Reference-centers on causative agents monitoring in IHR frameworks (2005)

National centers of diagnostic activity verification

❖ **7 Regional centers on monitoring of infectious and parasitic disease causative agents II-IV groups of pathogenicity (Russian classification)**

❖ **19 Regional centers on monitoring of infectious and parasitic disease causative agents I-II groups of pathogenicity (Russian classification)**



FUNCTIONS

- **Bacteriological, virologic, serologic, parasitologic, molecular-genetic assays**
- **Study of etiological factors of infectious and parasitic diseases**

❖ 8 centers of indication and diagnostics of causative agents based on anti-plague institutions



FUNCTIONS

- **Indication and diagnostics of dangerous infectious diseases (bacterial and virus)**
- **Study of etiological factor to prevent or to liquidate extreme situations**

METHODS

- **Express-diagnostic (MFA, bacterioscopy)**
- **Speed diagnostic (PCR, ELISA, serologic reaction)**
- **Full bacteriological analysis**

❖ 17 Reference-centers on causative agents monitoring in IHR frameworks (2005) based on research institutions



FUNCTIONS

- Advisory and practical help to health care establishments and services;
- Identification and study of biological, molecular-genetic, biochemical characteristics of causative agents of infectious and parasitic diseases;
- Detection of cultures with atypical properties;
- New agents detection

❖ 4 national centers of diagnostic activity verification based on epidemiology and microbiology research institutions



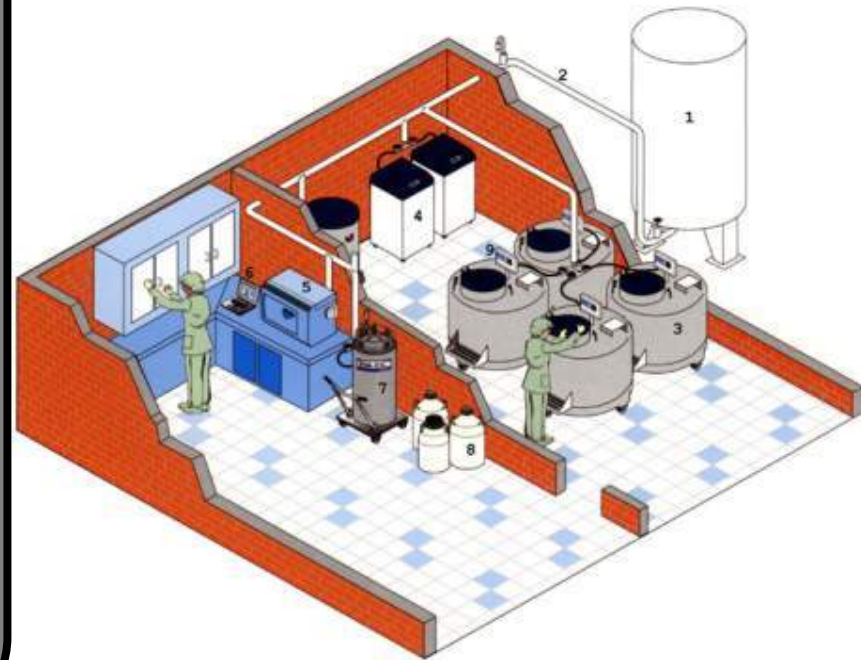
FUNCTIONS

- Verification of results of diagnostics carried out by the Centers of indication and diagnostics
- Identification of dangerous infectious causative agents diseases of unknown etiology with heavy symptoms
- Molecular-epidemiology analysis
- Study of virologic, bacteriological, molecular-biological, serological, immunochemical properties of especially dangerous causative agents

❖ 4 National centers as state collections



- Collection Safety Maintenance (I-II groups of pathogenicity)
- Antiterrorist security
- Modern access control and storage equipment
- Increase of reliability and storages terms of microbe cultures
- Maintenance of the basic biological properties of microorganisms
- Strain certification and databases creation



Federal Target Program

«National system of chemical and biological safety of the Russian Federation
(2009 - 2013)»

Government Russian Decision (October 27, 2008, No. 791)

The Government of the Russian Federation **decides:**

1. To ratify the applied federal target program " National system of chemical and biological safety of the Russian Federation (2009-2013)".

PURPOSE OF THE PROGRAM

Consecutive decrease of influence of dangerous biological factors on the population, biosphere, technosphere and ecological systems to a comprehensible risk level

Federal Target Program

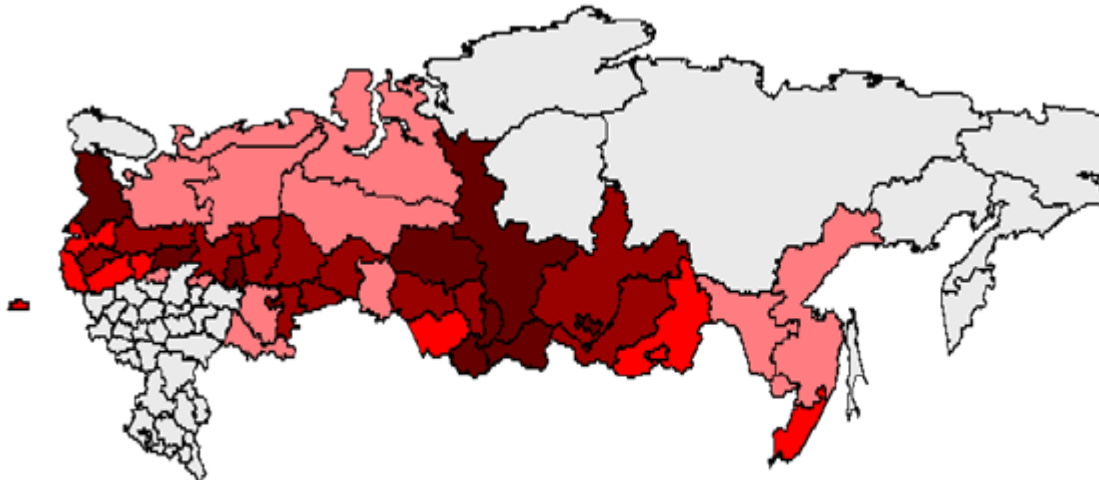
«National system of chemical and biological safety of the Russian Federation
(2009 - 2013)»

PRIORITY DIRECTIONS OF THE PROGRAM

- ❖ Current situation analysis, coordination of involved agencies` interaction
- ❖ Strengthening of material base of the organizations which are carrying out the control (supervision) and monitoring
- ❖ Analysis of Russian methodical base on the biological safety, scientific substantiation on its perfection
- ❖ Risk reduction from biological danger sources for population health for environment
- ❖ Development of uniform scientific-methodical approaches, technologies and protection means against influence of dangerous biological factors
- ❖ Increase of the level of knowledge of the population, a professional training, creation of risks management tools

Development of GIS-technologies and forecast-modelling systems for estimation of biological danger of especially dangerous infections epidemics

- ❖ Electronic maps for carrying out of monitoring
- ❖ Databases with geographical binding
- ❖ Agents monitoring
- ❖ Mathematical model and the program of Russian territories differentiation on epidemic danger degree
- ❖ Russia territory typification on nosologic forms of diseases



Russian Federation - the donor of the international help to public health services of the countries with insufficient resources

\$ 32 mln. – Russian contribute to the Global Fund (2006 – 2007);

\$ 20 mln. — Russian contribute to the program on combating malaria in Africa (2006);

\$ 1,8 bln. Russia planned contribute to AIDS and Viral Hepatitis Program (2006 – 2010);

\$ 217 mln. intended previously for financing projects in Russia will be backed to the Global Fund in 2006



According official G8 Summit web-site



Thank You !