

PLANNING AND TRAINING OF GOVERNMENT AND HEALTHCARE DELIVERY PREVENTION AND DISTRIBUTION OF COVID-19 IN THE MEGAPOLIS

Sergey Fedotov, Leonid Pisarenko, Sergey Gumenyuk

GBUZ "Scientific and Practical Center for Emergency Medical Aid of the Moscow Department of Health".

Bolschaya Sukharevskaya Square, 5/1, building 1, 129090, Moscow, Russian Federation

E-mail: zotova.e@inbox.ru

Due to the high population density in urban areas, the risk of the spread of infectious diseases is often higher, especially in crowded areas. Moscow is one of the world's megalopolises, and in Russia it is actually the main trade, transport and transshipment point between the countries of the West and the East. Local governments are directly responsible for the leadership and development of policies, which often include some public health services, and play an important role throughout the emergency lifecycle, from preparedness to COVID-19 response and recovery.

The first case of COVID-19 in Moscow was detected on March 2, 2020. Thanks to the quarantine measures taken, measures to prevent the spread of coronavirus, we managed to significantly reduce the incidence and reverse the development of the epidemic. But this can be called a small victory in one battle - the war is not over yet. While we register many new cases every day, in some regions there is even an increase in the incidence, which means that the risk of the spread of infection remains. As our experience and statistics show, Moscow quarantine is one of the most effective in the world among cities with a similar population density and structure. This required the rapid creation of new governance mechanisms and partnerships to overcome this crisis.

The Comprehensive Plan of Anti-Epidemic Measures for the Sanitary Protection of the Territory of Moscow, developed for a 5-year period, was taken as a basis. The comprehensive plan was agreed with all interested ministries, departments, organizations and approved by the mayor of Moscow.

The plan contains the following **sections**:

1. Organizational arrangements.
2. Training of personnel.
3. Preventive measures.
4. Anti-epidemic measures.

The comprehensive plan also includes the following **main issues**:

- determination of the personal composition of the interdepartmental sanitary-anti-epidemic commission (SEC) and the medical anti-epidemic headquarters of the city of Moscow;
- the procedure for informing the higher authorities authorized to carry out state sanitary and epidemiological supervision, and health authorities, civil defense and emergency situations about the identified patient;
- identification of institutions and units that transport COVID-19 patients to the hospital;
- selection of consultants (infectious disease specialist, epidemiologist, bacteriologist or virologist) from among the most qualified specialists;
- Allocation, release and re-profiling of premises for specialized and provisional hospitalization of patients, isolation of contacts, for the deployment of observers in case of quarantine;
- equipment of the site for the treatment of medical and sanitary and other involved evacuation vehicles;
- determination of laboratory facilities for diagnostic studies;
- allocation and training of personnel to work in the outbreak of COVID-19;
- providing a stock of medical, preventive, diagnostic, disinfectants and protective suits;



- determination of the composition of morgues;
- providing transport to all functional units working in the outbreak of COVID-19;
- allocation of premises for a hostel for medical and service personnel;
- material and financial support for all measures to localize and eliminate the outbreak of COVID-19;
- vaccination and medical supervision of the population;
- organization of emergency prevention of risk contingents;
- veterinary activities;
- sanitary and hygienic measures;
- restrictive measures (quarantine);
- overseeing imported goods, goods, raw materials, food from countries endemic for COVID-19, conducting a selective laboratory study of sanitary dangerous goods according to epidemiological indications;
- Creation of field laboratory groups to study material from a patient (suspicious) in the region where the patient is identified;
- outreach work among the population.

Heads of departments, territorial divisions for supervision in the field of consumer protection and human well-being in Moscow and heads of the Health Department and district health authorities bring the comprehensive plan to the attention of the heads of all involved institutions and departments, annually adjust it, check the reality of implementation by conducting training exercises (at least once a year) to improve practical skills in the work to eliminate epidemic foci.

On the basis of a comprehensive plan in each medical institution of the metropolis, an **operational plan was drawn up for anti-epidemic measures** in the event of a patient (corpse) being identified. The plan is constantly adjusted as personnel and other changes in the institution. The plan is put into effect by the head of the institution upon identification (admission) of a patient suspected of COVID-19.

The operational plan of a medical institution contains a list of specific measures in identifying a patient (corpse) suspected of COVID-19, including:

- method of transferring information to the head of the institution (deputy);
- a method of promptly informing the heads of higher medical institutions by subordination (telephone numbers and names of specific persons);
- notification and gathering of specialists (during working and non-working hours);
- definition of functional responsibilities and actions of each specialist;
- measures depending on the location of the patient (corpse);
- institutions provided in the comprehensive plan for hospitalization of the patient, evacuation of the patient, disinfection (addresses, phone numbers, names of the heads of institutions);
- availability and storage location of packs with a stock of necessary medicines for the treatment of the patient, disinfectants, personal prophylaxis and personal protective equipment, collection of material for laboratory research (name of the person responsible for completing the packs, their storage, the ability to access them outside of working hours);
- material support for all measures, including in case of emergencies (failure of sources of water supply, electricity, communications, transport, etc.);
- in the operational plans of medical institutions allocated for a hospital, a provisional hospital, an isolation ward, graphical schemes for the deployment of these units (floor plans) should be drawn up indicating the purpose of each room, as well as the list of formations (main and backup), a list of necessary equipment for the full target

functioning of this formation, indicating the institutions and organizations that will have to supply the missing equipment, etc.

Additional proposals and recommendations were made to the city authorities, in particular on:

- using a coordinated multisectoral, whole-of-government and whole-of-society approach;
- promoting coordination and coherence of actions at all levels of government;
- identification of existing threats and vulnerabilities;
- identifying and equally protecting vulnerable groups of the population;
- considering various social and cultural relationships with health-related problems and norms, as well as with the concept of health;
- assessing the degree of dependence on the informal sector or the shadow economy;
- determining the most appropriate means of communication;
- ensuring the continuity of the provision of basic services;
- ensuring the preparedness of medical institutions for COVID-19, identifying and mobilizing additional resources;
- providing the population with adequate housing conditions, reducing the risks of homelessness and preparing for external and internal migration;
- ensuring due attention to maintaining mental health;
- the ability to ensure that the action taken is based on a sound evidence base, taking into account the impact on life and livelihoods.

As part of their preparedness to effectively respond to COVID-19, the city's local government has been mandated to focus on the following four key areas:

- coordinate local plans to prepare effective responses to the risks and health effects of COVID-19;
- Communicate risks and crises and engage the community to promote compliance with all necessary community prevention and protection measures;
- organize context-specific public health approaches, especially physical distancing, hand hygiene and respiratory etiquette;
- Ensure access to health care during the COVID-19 pandemic and the continuity of essential services.

It should be noted that the operational plans of medical institutions were also constantly adjusted depending on the current or projected situation, but the essence of the presented sections of the plan did not fundamentally change.

Thus, the advance planning of anti-epidemic measures and the close-knit relationship and coordination of actions of all administrative and economic management bodies and the capital's health care, made it possible for Moscow health care to prepare in a timely manner and progressively for the probable and predictable importation and spread of COVID-19 among the population in Moscow and, thereby, to ensure a gradual increase in all capacities of the economy, healthcare facilities and society as a whole to minimize sanitary and irreversible losses from the incidence of COVID-19.