

The National Policy on Combating Communicable Diseases

In the United Arab Emirates

Introduction

The outbreak of communicable diseases and the measures required to combat them are among the most prominent challenges facing health systems of all countries, especially when taking into account the rapid spread of such diseases and their transmission worldwide as a result of the development in the level of individuals' transportation and the high level and volume of exchanges between countries. This makes combating these diseases at the top of health policy concerns and priorities in the UAE.

Communicable diseases are defined, according to World Health Organization's definition, as diseases caused by pathogenic microorganisms and can be transmitted, directly or indirectly, from one person to another, from animals to humans, or from the environment to persons, directly or indirectly.

In fact, several communicable diseases spread as a result of low levels of environmental preservation, malnutrition, lack of awareness of proper human healthy behavior and the lifestyle that helps avoiding infection. Social, environmental and technological factors are still at the forefront of factors that have a tremendous impact on the spread of communicable diseases worldwide; as they facilitate the emergence of new diseases, re-emergence of old ones, and sometimes their emergence in drug-resistant forms.

Communicable diseases pose a constant threat to all people regardless of their age, gender, lifestyle, ethnic background or socioeconomic status. There are novel diseases that were not previously known and are continuously emerging (such as the Middle East Coronavirus, bird flu, and drug-resistant organisms) and there are old diseases that re-emerge in case of drug resistance (such as *Staphylococcus aureus* that is resistant to methicillin) or in a different population (such as Whooping cough for adolescents and youth). As such, the authorities responsible for combating communicable diseases must strengthen and maintain their capabilities for careful surveillance and combating the spread of diseases, strengthening their efforts in the field of education, getting prepared through supporting a positive and effective work environment, developing and supporting a highly-skilled workforce, and fostering strong internal and external partnerships.

Further, communicable diseases pose a constant threat to all people of all demographic situations, cause suffering and impose a financial burden on society. Despite recent advances in health areas, such as the use of antibiotics and vaccines, new diseases are constantly detected while others are re-emerging in drug-resistant forms (such as malaria, tuberculosis, and antibiotic-resistant pneumonia bacteria).

Vision:

This Policy aims to enhancing the health of individuals and the Emirati society within the framework of a healthy environment free from the risks of communicable diseases.

Mission and Objective:

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To set a multi-sectoral national framework for combating and controlling communicable diseases in the United Arab Emirates

The purpose of the national framework:

The importance of adopting a more coherent strategic approach for bringing success and enhancing the communicable disease control efforts along with emphasizing on the fact that effective control of diseases is the responsibility of all levels, sectors, and various specializations inside the Country. Therefore, adopting a multi-sectoral national approach in some areas can lead to a more effective and efficient use of national resources.

There are significant advantages of nationally coherent approach by consolidating efforts to encompass all aspects of communicable disease control, allowing for focus on the Policy priorities and the optimal use of resources.

The national framework can achieve greater effectiveness due to the integration of efforts made without any change in the responsibilities of governments. It implies a commitment made by all parties to work better together in all areas of shared responsibility. It also implies a commitment to improve coordination of public health functions and communicable disease control services to avoid repetition, coordinate planning and implementation, and improve information sharing and innovation.

The national framework also provides an automatic opportunity to involve non-governmental sectors and the wider society at the national level, which leads to the desired objective of developing health system to protect the UAE society, control communicable diseases, and promote healthy lifestyles to eradicate such diseases.

Policy Axes

Support Leadership and Governance	Partnership
Quality	Improvement of Information Systems and Research Capacity

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Guidelines

Determining the national priorities for the prevention of communicable diseases

Developing national capacities to ensure establishing systematic and collaborative policies for priority communicable disease threats.

Ensuring that the established effective prevention programs are coherent and implemented nationally, along with monitoring and evaluation frameworks.

Communicating with researchers and conducting policy-related research to support evidence-based policy development.

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Objectives (Goals) and Work Areas

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Objectives (goals) and Work Procedures

The objectives and work areas of the National Policy on Combating Communicable Diseases are in line with the global action plan established for combating communicable diseases adopted by the World Health Organization, along with studying the best practices worldwide, taking into account the recommendations adopted in the workshop held in cooperation with the World Health Organization and the various health and non-health concerned authorities in the Country, and based on the meetings organized with the mentioned concerned authorities. These objectives include the following:

Objective (goal) 1. Improving capacities for prevention, detection and response to communicable diseases			
Procedure 1.1	Procedure 1.2	Procedure 1.3	Procedure 1.4
Improving public health detection, monitoring, and laboratory testing capabilities	Improving preparedness and response capacity	Implementing evidence-based prevention policies	Effective communication in public health and prevention of communicable diseases
Objective (Goal) 2. Improving the regulation and implementation of communicable disease control strategies			
Procedure 2.1	Supporting leadership and governance		
Procedure 2.2	Enhancing (strengthening) workforce		
Procedure 2.3	Improving information systems and research capacity		
Procedure 2.4	Adequate and appropriate funding and infrastructure		
Procedure 2.5	Effective national partnerships and networks		
Procedure 2.6	International cooperation		

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cases of disease outbreaks, along with using interpretive tools so that public health data is translated into useful evidence for decision-makers. Ensuring the capacity for rapid intervention to support national emergencies is vital.

In this context, focus should be on the following basic elements:

- Continuous assessment of the current and future needs of the workforce and identification of the competencies and skills needed to provide high-quality communicable disease services. Based on the analyses of public health workforce, areas of skill shortages are likely to include: epidemiology and biostatistics, pathology and laboratory science, public health informatics and information technology, policy and program evaluation;
- Continuous training and development in the field of communicable disease control for public health front line workers to prevent the spread of communicable disease cases and properly manage them, along with providing advice on infection control and prevention;
- Ensure the necessary resources, improve work procedures and work environment to support employees' ability to carry out their jobs, and provide progression opportunities in order to increase job satisfaction;
- Protect workers in health sector from potential infection while carrying out their duties;
- Provide effective support and recognize innovation, critical thinking, and individual and collective contributions;
- Attract, retain, and develop a diversified and highly skilled workforce;
- Provide meaningful and fair opportunities for training, professional development, and career enhancement for all workforce in controlling communicable diseases.

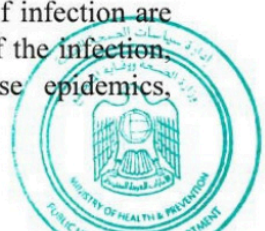
Procedure 2.3 Improving information systems and research capacity

Public health decision-making is critically dependent on the availability of accurate and timely data. The role of health information systems, including surveillance and laboratory information systems, is to generate, analyze and disseminate this data. Technologies are enablers of change in communicable disease control and support for basic communicable disease surveillance functions, including laboratory surveillance.

In this context, focus must be on the following basic elements:

- Improving information systems, surveillance systems, and robust information technology infrastructure, in addition to improving links between different health information systems to enhance the quality, depth and strength of data analyses and provide more accurate answers to surveillance or research questions;
- Establishing a national registry to record for communicable diseases that have been reported, in addition to diseases that have been detected through national surveys;
- Recognizing public health research as a primary source of information for decision-making. Research is considered necessary to improve the performance of public health interventions, as its role is one of the most important roles in all communicable disease control functions. Research activities that lead to developing strategies that reduce the impact of infection are related to policies. Examples include the following: Determining the origin of the infection, establishing diagnostic examinations; understanding communicable disease epidemics.

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- Ensure that the established effective prevention programs are consistent and implemented nationally, along with monitoring and evaluation frameworks;
- Identify and verify highly-effective tools for controlling and investigating communicable diseases, including new vaccines, strategies and tools for infection control and treatment, including collecting the necessary information to analyze health events and risks related to the problem of microbial resistance, and disseminating information to the concerned authorities in the Country in this regard;
- Establish evidence-based policy programs in the areas that the Country faces while combating the risks of communicable diseases that transmits, for example, from health facilities, or that is transferred from animals to humans;
- Communicate with researchers and conduct policy-related research to support evidence-based policy development.

Procedure 1.4 Effective communication in public health and prevention of communicable diseases (raising awareness)

Communication in public health is important, especially in the field of communicable diseases. The emergence of new communicable organisms, microbial resistance to therapeutic drugs, and new emerging diseases form a public health threat, as they increase the rapid and unexpected spread of diseases. These trends have expanded the scope of the role of communication and raising awareness in this area as a vital element in strengthening the efforts made in public health.

Communication related to health risks is an emerging discipline in the field of public health, which requires greater attention to evidence-based strategies and assessment of existing methods through which the government communicates with the public. It is considered a two-way channel that requires the government to be informed, understand, and evaluate public health information, rather than reliance on standardized means of communication such as fact sheets or advertising campaigns.

Health communication programs need to consider specific sets that represent different groups of beliefs, values, attitudes, social and cultural norms and perceptions. Therefore, the use of specific health communication strategies and techniques could serve as a message to maximize public interest, increase awareness of health risks, contribute to improving levels of health literacy, enhance solutions, and increase the possibility of adopting health behaviors and practices.

National messages should be centrally coordinated to ensure that consistent, accurate and timely information is provided to the public, either directly or through media organizations, and a recognized and trusted leader should direct the public communications.

Change can be achieved through:

- Make communication an integral part of all scientific and technical work on communicable diseases, and link it to evidence-based interventions and evaluation;
- Raise the level of community awareness of the factors and risks that affect human health and pathogens, establish a sense of individual and collective responsibility, and work to increase community awareness of health prevention methods;

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- Conduct research on the impact of health communication on controlling communicable diseases and identify the most effective strategies to meet the needs of populations with low literacy levels, and at-risk, underprivileged and hard-to-reach groups;
- Establish guidelines on health sector communications for all risks, defining the functions and responsibilities of health authorities, including the agreed upon spokespersons, goals, procedures, and target audiences for the various stages of national communicable disease emergencies;
- Evaluate the effectiveness of education and awareness activities that communicable disease control provides.

Objective 2. Improving the regulation and implementation of communicable disease control strategies

Procedure 2.1 Supporting leadership and governance

The main challenges facing the national communicable disease control are: Improving coordination between authorities and service providers working on communicable disease control, and improving the link between communicable disease control measures adopted by various sectors in the Country, whether health care or non- health care sectors. This is particularly important to support the “One Health” approach for the diseases that go beyond the humanitarian sector to a more comprehensive approach that includes the animal and agricultural fields.

- Enhance cooperation and integration between communicable disease service providers to focus on national priorities in controlling communicable diseases and the health needs of the population;
- Coordinate and improve national efforts for disease prevention, detection and response and for effective monitoring and outcomes in order to reduce redundancy and fill gaps;
- An integrated multi-sector national framework through: Strong leadership and society involvement and support;
- Clear performance expectations in terms of identifying the needs for communicable disease control and protecting the population health, along with the required responsibilities for achieving progress in meeting such needs;
- Provide the necessary funds to drive integration, coordinate technical advice and national surveillance activities, provide education and training, and ensure filling the gaps in national capacity arrangements.

Procedure 2.2 Enhancing workforce (human resources)

The current and future workforce in the field of communicable disease control must be enhanced and trained to meet the challenges. Workforce in the field of communicable disease control brings together various professionals who are not necessarily classified in the traditional categories of health workforce, which includes clinical and public health professionals. To this end, specialized training programs in applied epidemiology are needed to support the development of communicable disease control skills. Further development of such programs would ensure that the UAE has the human capacity to develop surveillance and monitoring programs, investigation in

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Objective 1. Improving capacities for prevention, detection and response to communicable diseases

Procedure 1.1 Improving public health monitoring and laboratory testing capabilities

1.1.A Surveillance and monitoring

The process of national surveillance and monitoring for communicable disease control; i.e. the collection and analysis of disease information that provides data for action, constitutes essential information for disease eradication and disease outbreak control, thus, protecting the society from spread of such diseases. Surveillance data is necessary to monitor the efficiency, timeliness, and cost-effectiveness of current efforts that are made for disease prevention and control, and to identify the developed prevention strategies and gaps.

Improving communicable disease surveillance at the national level requires agreement on national surveillance strategy priorities, including:

- Adopt interoperability to monitor diseases that must be reported in a timely manner, establish surveillance indicators that support disease control objectives, and commit to continuous, systematic and high quality improvement;
- Improve the surveillance experience through improving coordination and providing government support, communicable disease monitoring network in the UAE, as well as national centers and independent research institutions;
- Update surveillance through formal links with existing data sets, use technology to improve data quality and accessibility, and increase the sensitivity and capacity of surveillance systems to monitor communicable diseases, including common diseases and their determinants;
- Identify opportunities for developing effective surveillance systems for emerging diseases and means of integration between such systems, and encourage innovation in them;
- Identify cases or a group of cases to emphasize on the importance of taking intervention measures to prevent the transmission of diseases or reduce the incidence of disease or death;
- Identify new health problems and emerging diseases;
- Assess the impact of health events on public health or identify and measure trends;
- Measure pathogens (such as risk factors) to initiate action to prevent disease onset;
- Demonstrate the need for intervention programs and resources, and allocate resources during health planning process;
- Monitor the effectiveness of prevention and control measures, intervention strategies, health policies, and evaluate their impact;
- Provide data for research and propose hypotheses that lead to analytical studies on pathogens causing disease, its spread, or its progression;
- Measure progress towards achieving the health strategy and national indicators, in addition to achieving the goals of sustainable development

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developing safe and effective vaccines, searching for new medicines, detecting new factors, and using existing knowledge to ensure that strategies are up-to-date and evidence-based;

- Meaningful research coordination to ensure that ongoing information needs are met, and that the ability to meet urgent needs in public health emergencies remains in place in the Country;
- Funding research to combat communicable diseases as an enabler for the disease control system;
- Transforming information into evidence that supports decision-makers.

Procedure 2.4 Adequate and appropriate funding and infrastructure

Challenges in determining public health expenditure are still present due to funding changes and the lack of cost-effectiveness assessment of public health activities related to communicable diseases.

Appropriate financing mechanisms are necessary to ensure the sustainability of the system's functions, especially surveillance and laboratory surveillance. In this context, focus must be on the following basic elements:

- Emphasize on cost-effectiveness and relative efficiency of different approaches through a range of communicable disease control interventions;
- Flexibility of financing programs to allow adaptation to emerging priorities;
- Identify national capacity gaps and focus on cost-effective interventions to achieve sustainable improvements in communicable disease prevention.

Procedure 2.5 Effective national partnerships and networks

Continuous, coordinated, and integrated efforts are needed for several concerned authorities, individuals and groups to build a robust communicable disease control system capable of preventing and controlling endemic diseases and responding to new and emerging threats. All levels of government, non-governmental bodies, professional institutions, private sector, and society all play roles in this regard.

Strategic partnerships improve collaboration and service delivery, through clinical response, surveillance, laboratory examinations, research and policies.

The public should be recognized as a key partner, as individuals can be less infected with communicable disease through receiving vaccinations from the National Immunization Program, adopting preventive behaviors, and adhering to safe work practices. Engaging the public and urging it to change behaviors is critical to combating communicable diseases.

In this context, focus should be on the following basic elements:

- Coordinate with public health and healthcare enhancement partners and other partners to implement policies that improve the health of individuals in the Country;
- Engage non-governmental sector and the broader community at the national level and assist local government, companies, and community leaders to improve local preparedness activities;
- Communicate with the public about the interrelated efforts needed to prevent and control communicable diseases and their role in protecting their health.

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severity, and other clinical information in addition to developing a set of scenarios to support resilient and adaptive public health encounters.

In this context, focus should be on the following basic elements:

- Develop a centralized ability to assess threats and support decision-making on new threats and multidisciplinary events;
- Establish pre-event investigation protocols for communicable disease outbreaks;
- Ensure that threat planning includes the best evidence and that applied research (where applicable), such as mathematical modeling, is taken into account when planning;
- Collecting the necessary information for analyzing national health events and risks related to communicable diseases from the concerned authorities in the Country, including the sectors responsible for surveillance and reporting, land, air and sea entry points, and other government departments, and disseminating information to the concerned authorities in the Country;
- Follow up and implement all technical measures to combat health pandemics in coordination with the competent national committees in this regard;
- Responding to common diseases transmitting from animals to humans that must be reported, which requires coordination with the concerned authority to deal with any of such diseases.

Procedure 1.3 Implementing evidence-based prevention policies

Protecting the society from communicable diseases requires evidence-based policies that support the implementation of measures to prevent these diseases and improve the health of population at risk. To achieve maximum effectiveness, a national agreement on prevention priorities is required.

In this context, it must be emphasized that systematic risk assessments must support planning by assessing current trends and future forecasts of disease in the context of social, economic, political and environmental factors driving the spread of communicable diseases. Recognizing the relationship between some infections and chronic diseases (Chronic viral hepatitis infection causes liver cancer, HPV causes cervical cancer, and the bacterial infection of *Helicobacter pylori* is associated with stomach cancer) highlights the need for long-term planning.

As such, it should be noted that it is important to recognize that prevention includes biomedical, social, environmental, economic and behavioral determinants at the health level. Therefore, policy development must extend beyond the public health and healthcare communities to involve the concerned parties and other partners in several sectors and disciplines.

Policy development should include the compilation and interpretation of high-quality evidence relevant to the area of communicable disease control and policy-oriented research should be flexible, appropriate and cost-effective; this is to make the most use of the data and partnerships that exist in the communicable disease control community.

In this context, focus should be on the following basic elements:

- Define national priorities for the prevention of communicable diseases;
- Develop national capacities to ensure establishing systematic and collaborative policies for priority communicable disease threats;

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1.1.B Improving public health laboratory testing capabilities

Laboratory-based diagnosis and classification of communicable agents support all major functions of communicable disease control.

Surveillance depends on accurate diagnoses and rapid identification of pathogens. Strategic decisions regarding potentially dangerous disease outbreaks that may lead to the use of large resources depend on the results of laboratory tests. Specialized tests, such as bacterial genetic separation by electric current, have become an important method in determining the transmission pathways, group of disease outbreaks, and emerging and viral strains. Specialized examinations help design prevention techniques (such as formulating influenza vaccines) and treat infections (such as antimicrobial resistance cases).

The capacity and performance of public health laboratory services is improved by:

- Establishing and empowering leading laboratories to coordinate national activity and review available resources regarding threats, examinations, and proprietary technologies. This depends on the strength of existing networks and maintains expertise in the system;
- Linking existing reference facilities and institutions of expertise, and integrating national reference programs in all the Country's health facilities.

Nationwide organized and integrated public health laboratory networks should make the following available:

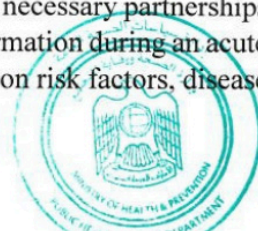
- Development of laboratory testing techniques through a combination of on-site reference checks for unfamiliar organisms, alignment of examination technology and methods for public health priority organisms and verification methods for comparing examination results from different technologies and methods used in this regard;
- Making advanced efforts to link and share laboratory information in order to support surveillance and control objectives and to improve information flow to all providers of communicable diseases control service.

Procedure 1-2 Improving preparedness and response capacity

Preparedness and response to national health emergencies is the responsibility of the whole Country. As to emergencies related to communicable diseases, the higher committees, including the "National Committee for the Implementation of the Provisions of the International Health Regulations and Prevention of Pandemics in the UAE," are extremely important to provide advice on national combat of diseases, along with the emphasis on the importance of coordination in emergencies by health authorities and other concerned parties.

Understanding epidemiological characteristics of an unknown threat, such as those that are more likely to get infection or acute consequences, is vital for reporting targeted confrontations. The pre-agreed investigation plans should define the types of epidemiological research and investigations required in the early stages of the epidemic, and establish the necessary partnerships to undertake research when needed. To ensure systematic collection of information during an acute event, pre-event investigation protocols must be established to collect data on risk factors, disease

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Procedure 2.6 Active international participation

The speed and volume of national and international travel leads to inability to manage communicable diseases within countries. Active international participation is critical to reduce global risks of communicable diseases. Improving the control of national communicable diseases should be an opportunity to improve the organization of activities, relationships, and international health programs in the UAE.

The International Health Regulations provide a legal and policy framework for detecting and responding to disease outbreaks of international importance. Under the International Health Regulations, all member states of the World Health Organization (about 200 countries) are required to maintain or develop basic capacity for disease surveillance, reporting, and responding. Industrialized countries should provide technical support to the less developed countries. The implementation of the International Health Regulations aims to improving the ability of all countries to detect, assess, report and respond to public health threats.

The Asia-Pacific region and some African countries have been identified as centers for emerging communicable diseases, with potentially significant implications on health, social and economic development. The proactive regional engagement to mitigate potential epidemics is in the national interest of the UAE.

Coordinated support should be strengthened in the following areas:

- Bilateral and multilateral initiatives in the field of communicable disease control, in particular the detection and response to emerging threats, including drug resistance, pandemic influenza, and bioterrorist events;
- Allocate more human and other resources to support surveillance, preparedness, prevention and control activities;
- Continuous monitoring of regional and global communicable disease surveillance networks, such as the Global Outbreak Alert and Response Network of the World Health Organization;
- Analyzing, studying and evaluating the basic capabilities needed to implement the International Health Regulations and develop national requirements to enhance these capabilities in coordination with the concerned authorities in the following areas: Legislation, coordination, surveillance, response, preparedness, and risk declaration;
- Periodic evaluation of the Country's performance in implementing the provisions and requirements of the International Health Regulations and periodically reporting to the concerned international organizations in this regard.

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