

National Policy for Combating Health Risks in the United Arab Emirates

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The National Policy for Combating Health Risks in the United Arab Emirates

Introduction:

Health risks are defined as external factors surrounding individuals that affect their overall health, such as biological, chemical, radiological, nuclear, and environmental hazards. These risks may lead to emergencies, crises, or health disasters, such as epidemics and pandemics, and can have short- or long-term impacts on health. While some of these risks stem from unchangeable natural environments, it is possible to respond to their consequences by strengthening healthcare systems.

Healthcare systems play a key role in crisis response, as emergencies expose weaknesses in health systems and affect morbidity and mortality rates, in addition to causing economic disruption. Therefore, enhancing preparedness and readiness to face health risks at global, regional, and national levels is vital to protect lives and support recovery from emergencies and crises. This requires investment in national preparedness capabilities, contributing to both health and economic prosperity.

Improving the health environment can help reduce the global disease burden. The COVID-19 pandemic has highlighted the necessity for health systems to be capable of delivering integrated services at all stages of emergencies. The experience confirmed the need to improve countries' readiness to face crises—a goal pursued by many nations, including the United Arab Emirates, which demonstrated its competence in handling the pandemic effectively.

There is a need for integrated strategies to address health risks across all sectors, focusing on solutions that coordinate between different sectors and are based on the “One Health” concept. This facilitates prevention and management of risks, thereby enhancing effective response and ensuring community participation in protecting public health.

Vision:

To protect the health of individuals and the UAE community and ensure health security by addressing health risks and their impact on public health.

Mission - Purpose:

To adopt a national multisectoral framework to combat health risks, emergencies, and crises affecting public health in the United Arab Emirates. This is to be achieved through a national policy that offers a comprehensive, rapid, and effective methodology for preparedness, readiness, prevention, response, and recovery.

Purpose of the National Framework:

The importance of adopting a more coordinated strategic approach is increasingly evident to ensure the effective management of diseases and injuries resulting from health emergencies. This responsibility spans across all levels and sectors of the country, with their diverse specializations. Therefore, adopting a multisectoral national approach in key areas can lead to a more effective and efficient use of national resources.

There are significant benefits to a nationally consistent approach by unifying efforts to cover all aspects of responding to health emergencies. This enables a focus on policy priorities and optimal use of resources.

Addressing the challenges posed by health risks extends beyond the health sector alone. Public health challenges can only be met effectively if they are led by the health community through its active involvement in key strategies and planning processes for implementing multisectoral policies. These policies aim to promote health across sectors and key areas and shall be supported by public backing, an enabling policy environment, and a range of implementation mechanisms and methodologies to achieve this vision.

The national framework can achieve greater effectiveness through the integration of efforts, taking into account the mandates of concerned authorities. It entails a commitment from all parties to work together more effectively in areas of shared responsibility. It also involves a commitment to improving coordination between public health functions and communicable and non-communicable disease control services to avoid duplication, coordinate planning and implementation, and enhance information sharing and innovation.

Moreover, the national framework provides a mechanism for engaging the non-governmental sector and the broader community at the national level. This contributes to the ultimate goal of strengthening the health system to prevent and control various diseases in the UAE community and to promote healthy lifestyles that help reduce the burden of disease.

Policy Principles



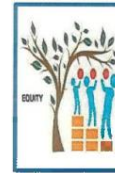
Leadership Support and Governance



Ensuring National Health Security and Community Protection



Comprehensive Health Risk Management
(Prevention, Preparedness, Readiness, Response, and Recovery)



Equity and Transparency



Proactivity and Foresight



Sustainability and Innovation



Multi-Sectoral and Interdisciplinary Collaboration



Precautionary Principle

Policy Scope:

This policy covers health risks and emergencies that impact public health in the United Arab Emirates.

Definition and Concept of Health Risks within this Policy Scope:

Within the framework of this policy, health risks are defined as external factors related to biological, chemical, radiological, nuclear, and environmental aspects that may manifest as health emergencies or crises and impact public health in the country. However, their complications and effects on the health of individuals in the community can be mitigated.

Accordingly, the examination and assessment of a health risk can be determined based on two main factors: the probability of occurrence and the level of impact.

Policy Alignment with the Country's Vision and Direction:

The goals of this policy center on reducing morbidity, disability, and mortality associated with health risks. The objectives and fields of work outlined in the policy shall be aligned with the Global Action Plan for managing health emergency and disaster risks, the World Health Organization's framework for addressing communicable diseases, the One Health approach, the Global Strategy on Health, Environment, and Climate Change, the Global Vaccination Strategy, and the international best practices for addressing health risks and emergencies. This alignment supports the achievement of national health targets under the National Agenda, the vision of "We the UAE 2031", the Sustainable Development Goals 2030, UAE Centennial 2071, and the 50-Year Plan for health development. Furthermore, it is consistent with the National Preparedness and Readiness Framework issued by the National Emergency Crisis and Disaster Management Authority (NCEMA), taking into account recommendations from workshops conducted in collaboration with the World Health Organization and various health and non-health authorities across the country, in addition to the outcomes of meetings held with these concerned authorities.

This policy draws its significance from the importance of preserving human health, as the individual is the fundamental and central element in the development process. Health is a top national priority, as reflected in the country's commitment to providing quality healthcare for its citizens. Its relevance is further underscored by the growing challenges, consequences, and difficulties posed by health risks—most notably the COVID-19 pandemic, which left deep social, health, and economic impacts on society.

Axes and Fields of Work: Summary Table of Axes and Fields of Work for the National Policy for Combating Health Risks

Axes	Fields
1. Leadership Support and Endorsement	1.1 Building and supporting social, financial, and administrative commitment.
	1.2 Strengthening coordination at all levels, including effective national partnerships and networks, and international cooperation.
	1.3 Developing supportive policies and legislation.
	1.4 Integrating health into all policies.
2. Health Risk Management: Prevention, Preparedness, Readiness, Responding, and Achieving Recovery	2.1 Proactively Planning for Health Risk Management: Phase One: Overseeing the Implementation of the National Framework for Health Risk Management Phase Two: Identifying Health Risks Phase Three: Analyzing Health Risks Phase Four: Assessing Health Risks
	2.2 Monitoring, Forecasting, and Early Warning of Health Risks
	2.3 Strengthening Prevention, Preparedness, and Readiness
	2.4 Ensuring Effective Response
	2.5 Recovering from the Impact of Health Risks
3. Controlling Health Condition in Cases of Health Risk Exposure	3.1 Enhancing the sustainable core infrastructure for health and its associated logistics
	3.2 Ensuring the continuity of essential and vital health services during health emergencies
	3.3 Providing health and preventive products, and developing immunization services, with the aim of ensuring effective disease control
	3.4 Ensuring the availability of an adequately qualified health workforce
4. Managing Knowledge, Awareness, Effective Communication, and Engaging the Community	4.1 Enhancing effective communications and community engagement
	4.2 Developing interventions for effective risk communication and for addressing rumors and false claims
5. Information Systems, Innovation, and Research Capacity	5.1 Providing and analyzing data and statistics related to health risks to support evidence-based decision-making
	5.2 Enhancing research capacity and establishing innovative systems and management in the field of various health risks
6. Evaluation, Lessons Learned, and Development of Future Recommendations	6.1 Evaluating health risk management to identify lessons learned
	6.2 Identifying the most important expected improvements in the health sector
	6.3 Identifying the key expected improvements outside the health sector
	6.4 Enhancing the process of future planning for health risk management

[In case of any contradiction – the Arabic Version prevails]

1. First Axis: Governance - Supporting and Endorsing Leadership and Building Partnerships

This axis focuses on the country's commitment to protecting its citizens from health risks, recognizing it as a fundamental right guaranteed by the government to ensure the community is safeguarded from health problems, diseases, and injuries resulting from exposure to such risks. It emphasizes the importance of building partnerships to ensure the efficiency and effectiveness of health risk combating services across the country. High-level leadership support, along with administrative, financial, and social backing, is essential for enabling joint work across all vital sectors. This collaborative approach contributes to public health benefits by creating healthier environments. Moreover, multisectoral cooperation, both nationally and globally, along with high-level agreements, plays a crucial role in addressing key risk factors and global threats to public health.

1.1 Building and Supporting Social, Financial, and Administrative Commitment

-  Competent authorities, decision-makers, and stakeholders shall advocate for a commitment to support health risk combating policies, including their sustainable domestic financing.
-  Global, regional, and national coordination and governance mechanisms shall ensure the effectiveness of evidence-based and equitable decision-making processes, guaranteeing timely decisions on the allocation of health supplies, equipment, medical products, essential medicines, and vaccines.
-  The national strategic medical stockpile shall be mobilized, and the trained human resources shall be identified to ensure full utilization of their efforts.
-  Public funding for health emergency preparedness shall be allocated according to priority-setting and budgeting frameworks to strengthen health systems across concerned sectors, ensuring sustained financing.
-  Governance mechanisms and decision-making processes shall be improved, and the institutional and operational infrastructure and capacities for public health shall be strengthened, including scientific, laboratory, operational, and research competencies within national public health institutions, in a manner consistent with national circumstances.
-  Participation in an effective international system for epidemics and other health emergency alerts and response shall be strengthened, along with engagement in collective international efforts for containment and control.
-  A mechanism stemming from the national policy shall be established to ensure health security and self-sufficiency, which should include steps for planning, managing, securing, and localizing the country's needs for medicines, medical supplies, and equipment.
-  Flexible and specific provisions in health product procurement policies shall be activated during times of crisis.
-  The health system's absorptive capacity shall be developed, and the efficiency of planning and response skills to health emergencies and risks shall be enhanced.

- ✚ National and local strategies and mechanisms for risk reduction shall include a long-term plan for developing health capacities and infrastructure.
- ✚ Business continuity plans and policies shall be implemented to minimize the impact of health and precautionary measures on economic activities.

1.2 Strengthening Management and Coordination at All Levels, including Effective National Partnerships and Networks, and International Cooperation

- ✚ Coordination at the national level shall be improved, and cooperation at the regional and international levels with all concerned authorities, especially health organizations, shall be strengthened to implement mechanisms and utilize resources effectively, avoiding gaps and duplication of efforts. Cross-border coordination and cooperation shall be pursued where appropriate, in accordance with mechanisms including the provisions of the International Health Regulations and other relevant national provisions.
- ✚ Strategic partnerships and effective technical cooperation in the area of health preparedness shall be encouraged and built, and information exchange between international, regional, and national institutions shall be promoted.
- ✚ The role of the Ministry of Health and Prevention, health authorities, and concerned authorities shall be supported in implementing, overseeing, and monitoring programs and initiatives related to health risk combating, each within its respective mandate—especially through joint committees or programs.
- ✚ Shared infrastructure across sectors shall be enhanced to support the performance of essential public health functions, including the ability to address existing and emerging health threats and risks.
- ✚ The National Policy for Combating Health Risks document shall be disseminated to all concerned partners, and the implementation of its measures shall be ensured.
- ✚ Mechanisms for coordination between concerned authorities shall be strengthened, and their participation in planning, implementation, and monitoring shall be ensured, including the private health sector in the country.
- ✚ Access to health risk information shall be guaranteed, and electronic integration and connectivity between all health and concerned authorities shall be ensured.
- ✚ Effective coordination and performance management shall be enhanced through the evaluation of the implementation of the National Policy for Combating Health Risks and the action plans related thereto, with clearly defined responsibilities, timelines, and implementation indicators.
- ✚ Participation in simulation exercises and joint external assessments related to health shall be encouraged, along with reporting on the achievement of national and international results and objectives.
- ✚ Continuous investment in developing effective national, regional, and international forecasting and early warning mechanisms for multiple health risks shall be promoted.

- ✚ International cooperation mechanisms for recovery from the effects of health disasters shall be strengthened, to facilitate the exchange of experiences and lessons learned between countries and all concerned authorities.
- ✚ Multilevel coordination to activate relevant teams, such as medical emergency teams and rapid response teams, shall be facilitated, ensuring timely mobilization and distribution of health specialists and professionals.
- ✚ Standards and technical guidance shall be provided to develop the necessary national capacities to respond to nuclear, chemical, biological, radiological, and environmental health risks, in line with the latest global health practices and guidelines.
- ✚ Local and global experts shall be recruited to provide support in the area of public health emergencies.
- ✚ The health capacities at entry points and across borders shall be strengthened to address potential health risks effectively.

1.3 Supportive Legislation for Combating Health Risks in the Country

- ✚ Awareness at all national levels of health policies and legislation shall be expanded, and the organization of leadership skill development courses shall be recommended, with the possibility to prepare summaries to introduce and explain them.
- ✚ Legislation related to communicable disease control, public health, and all other relevant laws shall be reviewed to ensure their alignment with the concept of combating health risks for all targeted groups and shall be updated to remain consistent with that purpose.
- ✚ New legislation in the field of health risk combating shall be introduced as needed, depending on the circumstances.
- ✚ Full activation and adherence to all legal provisions and articles related to combating health risks shall be ensured, in collaboration with concerned partners.
- ✚ The implementation of systems and laws related to combating health risks shall be evaluated and monitored.

1.4 Integrating Health into All Policies

- ✚ A scientific methodology shall be adopted to integrate health considerations when formulating policies related to public health and the determinants of health risks, both within and beyond the health sector.
- ✚ Shared health benefits from more sustainable policy options shall be obtained.
- ✚ Health shall be integrated into all policies, and a comprehensive approach to combating health risks shall be adopted, including collaboration with civil society, academia, the private sector, and others, as appropriate.
- ✚ A more inclusive and protective approach for public health benefits shall be followed, in coordination with all concerned sectors, including the One Health approach (human, environmental, and animal health).
- ✚ The impact of the policy on community well-being shall be measured, not only from a health perspective, but through a more holistic lens that considers economic, social, environmental, and educational impacts.

- ✚ The principles of humanity and neutrality in the provision of humanitarian assistance shall be affirmed, and the participation of all actors in delivering aid during emergencies, crises, and disasters shall be ensured, in support and reinforcement of these principles and to uphold full commitment to them.

2. Second Axis: Comprehensive Health Risk Management – Ensuring Preparedness, Enhancing Readiness, Preventing Threats, Responding Effectively, and Achieving Recovery

Health Emergency and Disaster Risk Management is based on key principles and approaches, including comprehensive emergency management that covers prevention, preparedness, response, and recovery. It involves a set of tasks and elements supported by multi-sector collaboration and strong health systems. The goal is to align national strategies and plans to improve the response to health risks.

Preparedness and Response Systems for Health Emergencies and Building Resilience:

2.1 Proactively Planning for Health Risk Management

Phase One: Overseeing the Implementation of the National Framework for Health Risk Management

- ✚ The objectives of the Health Risk Management Framework shall be reviewed and updated to ensure they are achieved.
- ✚ The list of stakeholders involved in health risk management shall be updated.
- ✚ The culture of health risk management shall be enhanced across both the health and non-health sectors in the country.
- ✚ Mechanisms shall be formulated to ensure the continuous identification, measurement, and assessment of health risks.
- ✚ Plans shall be developed on how health risk management procedures should be integrated into other administrative processes in the country.

Phase Two: Identifying Health Risks

- ✚ The health risk monitoring and early detection systems shall be strengthened, including classifying these risks and identifying their original sources.
- ✚ Information sources shall be expanded to identify health risks at the local, regional, and global levels.
- ✚ Risk elements shall be identified based on their potential impacts and likelihood, and this phase shall produce a list of health risks that could threaten the country.

Phase Three: Analyzing Health Risks

- ✚ The likelihood and impact of health risks shall be analyzed and assessed.
- ✚ Health risks shall be classified according to their magnitude using highly reliable data.
- ✚ Methods for analyzing health risks shall be developed, including qualitative analysis approaches, such as event-based monitoring, social media, big data, and other modern technologies.

[In case of any contradiction – the Arabic Version prevails]

Phase Four: Assessing Health Risks

- ✚ The level of health risk shall be classified as very high, high, medium, or low, with the assessment of risk levels depending on two factors: the impact of the risk and the likelihood of its occurrence.
- ✚ Health risks shall be prioritized for management.
- ✚ Changes in health determinants and their effects on vulnerable population groups should be monitored.
- ✚ Health risk assessments shall be made available to health authorities and relevant stakeholders to identify non-health-related impacts and shall include evaluations of key sectors such as energy, transportation, housing, economy, labor, industry, food systems, agriculture, water, urban planning, and other sectors.
- ✚ Health risk reduction needs shall be aligned with the context and the impact of the risk.
- ✚ Detection and preparedness shall be enhanced through proactive planning to address and prevent health risks.

2.2 Monitoring, Forecasting, and Early Warning of Health Risks

- ✚ The necessary capacities shall be developed to identify, monitor, and assess public health risks.
- ✚ Emerging changes shall be tracked, and appropriate strategies shall be implemented at both regional and global levels.
- ✚ National and reference laboratory capacities, including diagnostic testing, shall be built and strengthened to ensure comprehensive surveillance of preventable and controllable diseases.
- ✚ Health risk data shall be improved to enable comprehensive forecasting and early warning modeling, including the timely and effective availability of information, through the reinforcement of a shared framework with relevant stakeholders.
- ✚ Capacities and systems shall be ensured for monitoring, recording, and sharing data on key health risks and vulnerabilities with stakeholders at all levels.
- ✚ National early warning systems and multi-hazard monitoring networks shall be established and connected to regional and global networks to detect threats to the country and the surrounding region.

2.3 Strengthening Prevention, Preparedness, and Readiness

Strengthening preparedness and readiness for health emergencies focuses on two main objectives: enhancing the capacity to anticipate and monitor potential harm in order to reduce, avoid, or respond to emerging threats; and ensuring primary prevention against exposure to health risks. At this stage, necessary measures shall be taken to manage health risks, including preventing the occurrence of risks, avoiding exposure, mitigating their impact, sharing or transferring risk consequences to specialized entities, or accepting and managing the risk directly.

- ✚ A health risk monitoring system shall be established to ensure that early actions are taken promptly and effectively when needed.
- ✚ Preparedness and early warning systems shall be designed to reach all segments of the population, including those living in remote areas.

- ✚ A coordinated and well-equipped surveillance network shall be maintained to provide continuous data analysis during health emergencies.
- ✚ Population health data shall be identified and utilized to classify population groups, with particular focus on those most vulnerable to elevated health risks.
- ✚ Essential personal protective equipment shall be provided to healthcare professionals and the general population to reduce the health impacts of potential risks.
- ✚ The involvement of relevant non-health sectors, the private sector, and volunteer programs shall be activated to support and enhance national response capacity to health risks.
- ✚ The availability of a national strategic stockpile of medicines, medical supplies, and equipment shall be ensured.
- ✚ Primary healthcare systems shall be strengthened, and mechanisms for remote healthcare delivery, including virtual care and AI-powered services, shall be utilized.
- ✚ Health risk drills and simulation exercises shall be reinforced, and the training of healthcare personnel shall be prioritized.
- ✚ A clear mechanism shall be established to enable community members to report health risks directly to the relevant health authorities.

2.4 Ensuring Effective Response

The response and early intervention to all public health risks shall aim to minimize the impact of such hazards and threats on the community, with a focus on reducing injuries, fatalities, and the resulting economic and social consequences.

- ✚ Existing structures, including medical emergency teams, rapid response teams, and emergency operations centers at all local and national levels, shall be strengthened and updated.
- ✚ The necessary resources shall be provided, and coordination frameworks with all relevant stakeholders shall be enhanced, including mobilizing human resources, financial resources, and securing emergency funding through integrated national mechanisms.
- ✚ Response protocols shall be established, covering monitoring, laboratory testing, case management, communication, and logistics services.
- ✚ A business continuity plan shall be activated to ensure the provision of essential health services during the health emergency response period.
- ✚ Logistics and supplies: Essential medical supplies, personal protective equipment, vaccines, and medicines shall be stored and secured.
- ✚ Community networks shall be leveraged by training local leaders and volunteers to support surveillance, education, and care, while empowering civil society and engaging non-governmental organizations and community-based organizations in planning and implementation.
- ✚ Communication on health risks shall be strengthened to facilitate the exchange of information and perspectives between experts, authorities, and communities facing threats, enabling informed decision-making and the adoption of preventive interventions and behaviors.
- ✚ Mechanisms for providing psychological and material support to communities affected by health emergencies shall be enhanced, along with fostering greater community participation.

[In case of any contradiction – the Arabic Version prevails]

- ✚ Research and academic institutions shall be involved to promote innovation and provide scientific, evidence-based solutions.
- ✚ Periodic assessments shall be conducted to review response activities and identify gaps, allowing for adjustments to interventions based on changing needs and challenges.
- ✚ Regional and global cooperation and coordination in response to health risks shall be strengthened.
- ✚ A One Health approach, which is comprehensive and multi-sectoral, shall be adopted.

2.5 Recovering from the Impact of Health Risks

Recovery shall involve rebuilding and strengthening the capacities of both the health system and the community following an emergency or crisis, restoring normalcy, and establishing mechanisms to ensure the rebuilding and enhancement of health services to prevent future risks after the health emergency has concluded.

- ✚ Recovery and reconstruction plans shall be developed at both health and administrative levels, with the active involvement of all sectors of society.

3. Third Axis: Controlling Health Condition in Cases of Health Risk Exposure

Preparedness and response to health risks aim to adapt interventions to meet the needs of both the general community members and affected individuals, while leveraging local capacities and coordinating national efforts to address health risk exposure. This is achieved by enhancing infrastructure, high-quality health products, and a well-trained workforce.

3.1 Enhancing the sustainable core infrastructure for health and its associated logistics

- ✚ The infrastructure and logistical support for health services shall be enhanced through the development of coordinated and comprehensive preventive, curative, and rehabilitative healthcare services.
- ✚ Preventive action in the field of environmental health shall be integrated into comprehensive health coverage and the essential public health service packages.
- ✚ A One Health approach, being comprehensive and multi-sectoral, shall be adopted, and a multidisciplinary approach encompassing human, animal, and environmental health shall be sought.
- ✚ Mechanisms shall be developed to fully utilize all existing healthcare facilities, including hospitals, laboratories, and medical cities, at full capacity in order to bridge gaps and enhance emergency, disaster, and health crisis response capacities.
- ✚ The capacities and expertise of the private sector shall be utilized to increase capacity, infrastructure, in order to meet the growing demand for healthcare services.
- ✚ Integrated mechanisms shall be developed and implemented to monitor and track the availability of medical supplies, strategic stockpiles, and the human resources required to address challenges arising from the growing demand for healthcare services.

3.2 Ensuring the continuity of essential and vital health services during health emergencies

- ✚ Emergency and accident services, comprehensive injury services, and health emergencies triage operations shall be managed.
- ✚ Essential health services and related services, including routine care, urgent care, and temporary excess needs services, shall be provided during health emergencies.

3.3 Providing health and preventive products, and developing immunization services, with the aim of ensuring effective disease control

- ✚ An effective and responsible national pharmaceutical industry shall be ensured, and timely access to quality-assured pharmaceutical products shall be protected, along with the establishment of functional drug safety systems.
- ✚ Comprehensive pharmacovigilance and surveillance capacities over pharmaceutical products shall be established and enhanced, supported by robust and reliable systems based on drug laboratory testing and combating pharmaceutical fraud.

3.4 Ensuring the availability of an adequately qualified health workforce

The workforce and human resources investment pillar shall be based on effective planning, which shall include an understanding of the care models required to meet health needs, as well as the necessary requirements such as appropriate skills and advanced professional expertise. Such planning shall cover all health workforce specialties and take into account all relevant factors.

-  Health workers' capabilities and career pathways shall be developed to equip them with the necessary skills, resources, and expertise to plan, execute, and oversee disease control programs at all levels and locations.
-  Educational opportunities shall be provided for the health workforce: education and training to develop competencies, particularly local and national ones, to ensure sustainability.
-  Specialists shall be recruited to manage health risks and related programs, and to implement the required activities at both national and local levels. This shall include specialized considerations such as administrative sciences, planning and incident management, epidemiology, laboratory diagnostics, health information and risk management, needs assessment, logistics, risk communication, e-management in health and related programs, and the provision of essential health services

4. Fourth Axis: Managing knowledge, awareness, effective communication, and engaging the community

Health awareness among all community members regarding the significance of combating health risks shall be raised, awareness among health workers shall be increased to ensure the provision of healthcare services that meets the needs of diverse age cohorts during exposure to the impacts of health risks, through the activation of communication plans during health emergencies and risks.

4.1 Enhancing effective communications and community engagement

- ✚ A culture of safety, resilience, and effectiveness in responding to health risks shall be established between community members.
- ✚ Communication and community engagement shall be improved, the trust of its members shall be built, and understanding shall be ensured for individuals, particularly for groups most vulnerable to health risks such as children, women, the elderly, and people with special needs.
- ✚ Health workers shall be trained on how to effectively communicate awareness messages to communities in an accessible manner, using multiple means of communication and in various languages.
- ✚ A better understanding shall be developed, through studies, of community attitudes, behaviors, and social norms, and communication technologies, social media, and behavioral change shall be employed to engage local communities and encourage community members to commit healthy behaviors.
- ✚ Activities shall be developed to continuously educate and raise public awareness regarding health risk preparedness, as part of the curriculum, starting from schools and extending to higher education institutions such as universities and institutes.
- ✚ The level of awareness shall be continuously raised through transparency in the dissemination of accurate and useful information and instructions to the public, both before, during, and after exposure to health risks.
- ✚ Specialized entities shall provide technical and other forms of support for the development of media and communication strategies aimed at improving proactive response.
- ✚ Relevant health risk information, including events, complications, and consequences, shall be made available at all levels and shall be accessible to all concerned Parties.
- ✚ Campaigns and support activities shall be conducted to highlight risk reduction measures and shall promote risk management practices through community participation.
- ✚ Communication skills training shall be provided to official spokespersons of all relevant entities.

4.2 Developing interventions for effective risk communication and for addressing rumors and false claims

[In case of any contradiction – the Arabic Version prevails]

- ✚ Messaging shall be unified, and responsibility for informing the public during exposure to health risks shall be assigned to a designated entity or specific team.
- ✚ Proactive plans and strategies shall be established and developed for the monitoring, prevention, and response to adverse events, rumors, false claims, while addressing public concerns and enhancing flexibility in those plans according to events.
- ✚ Local and national behavioral and social research shall be collected for use in developing locally appropriate interventions and disseminating suitable communication technologies to increase commitment to a culture of Proper awareness of health risks.
- ✚ A permanent national (health) hotline and a dedicated website for prevailing health risk shall be established to serve as a reliable source of scientific advice and accurate information.

5. Fifth Axis: Information Systems, Innovation, and Research Capacity

Supporting needs-driven innovation, which is the capacity to identify and manage innovation, including identifying, documenting, evaluating, and implementing innovations, as well as supporting evidence-based research leading to development, improvement, and expansion in the field of combating health risks.

5.1 Providing and analyzing data and statistics related to health risks to support evidence-based decision-making

- ✚ Health information systems shall be enhanced to enable decision-makers to utilize high-quality data related to the identification of health risks, which shall be utilized for the effective management of preparedness and response programs, and ensure their integration with healthcare data systems in the country.
- ✚ Surveys for the assessment of health risks shall be conducted across the various regions of the country, based on (core demographic datasets and operational information).
- ✚ Data and statistics shall be generated on the anticipated or resulting impacts of health risks.
- ✚ The quality of periodic data related to the identification of health risks within the country shall be assessed.
- ✚ The integration and linkage between systems shall be ensured in order to collect the required data and enhance the activation of the unified health record as a source of national data.
- ✚ The smart platform for health policies and legislation shall be launched to provide an electronic environment based on information and communication technologies for the purpose of interactive planning and evaluation with the general community, experts, and specialists. It shall also serve as an interactive tool aimed at involving the community in the process of developing and evaluating health policies and legislation.
- ✚ The national digital transformation strategy shall be updated to include solutions involving advanced and digital technologies, including artificial intelligence techniques.
- ✚ The use of community engagement applications shall be enhanced to monitor and report cases affected by health risks.
- ✚ Environmental and health monitoring systems shall be integrated to enable the assessment of health impacts resulting from environmental hazards and services.

5.2 Enhancing research capacity and establishing innovation systems and management in the field of various health risks

- ✚ Mechanisms for prioritizing research and promoting innovation shall be enhanced based on community needs, ensuring they are guided by innovations in products, services, and practices related to health risk combat, preparedness, and response.
- ✚ The cost-effectiveness and the impact on routine services of various public health strategies shall be assessed.

- + Local innovation shall be supported, and the development of new vaccines, technologies, modern pharmaceuticals, and medical products shall be undertaken, along with the improvement of existing products and services.
- + The exchange of knowledge, innovations, and expertise in the field of public health shall be increased between country's institutions and other countries.
- + Sufficient evidence-based information shall be made available across all fields, which shall be critically important to support the identification of options for health protection measures, based on health impacts and the economic consequences of existing solutions, their effectiveness, and co-benefits.
- + Evidence-supported guidance shall be developed to ensure effective actions are taken, and policymakers shall be duly informed regarding the health impacts and economic evaluations of proposed interventions aimed at mitigating the fundamental causes of disease arising from health hazard exposure.
- + Systematic and applied research shall be conducted on the cost-effectiveness of policies in order to address community health, environmental priorities, and health risks combat approaches, as such research is essential to the decision-making process.
- + Mechanisms shall be established, and research capacities shall be developed to enable the early detection of and response to emerging health threats, particularly those associated with new technologies or global environmental changes, such as climate change, pharmaceutical residues in the environment, microplastics, nanomaterials, and electronic waste.
- + Research needs shall be identified, and knowledge shall be translated to bridge the required knowledge gaps, with the information derived from research being utilized to develop policies and take evidence-based measures.
- + The research and development budget shall be utilized to support national priorities, particularly in the field of public health promotion.
- + A unified national platform shall be provided to integrate research and development systems related to health risks.

6. Sixth Axis: Evaluation, Lessons Learned, and Development of Future Recommendations

The evaluation and lessons learned from addressing health risks shall include a comprehensive review of the procedures undertaken during crises to identify both achievements and failures. This evaluation shall contribute to understanding the strengths and weaknesses of the health response, thereby supporting improved future planning. By analyzing data and acquired experiences, future recommendations may be developed to enhance readiness and response to health emergencies. These procedures contribute to building more resilient and adaptable health systems, ensuring better protection of public health within the country.

Statement of change in approach through the management of emergency and health disaster risks to adopt a transitional approach:

Changing from		To
Depending on events	⇒	Depending on risks
Emotional response	⇒	Proactive response
Focusing on one risk	⇒	Comprehensive focus on all health risks
Focusing on abstract risks	⇒	Focusing on vulnerabilities, threats, and opportunities for improvement
Individual action and management	⇒	Integrated action and management, and community engagement in responsibility.
Assuming responsibilities separately	⇒	Health systems participate in assuming responsibilities
Focusing on addressing	⇒	Comprehensive risk axis management: preparedness, readiness, prevention, response, and recovery.
Planning for local communities	⇒	Planning with local communities

6.1 Evaluating health risk management to identify lessons learned

- ✚ The level of national security shall be enhanced, and the effects and complications of health risks on the community shall be reduced.
- ✚ Mechanisms for documenting health risks, their related events, and the measures taken to counteract various risks shall be enhanced.
- ✚ Lessons learned shall be identified and documented, with the involvement of concerned sectors from both the current and previous crises, (including successes and challenges), to provide continuous improvement.
- ✚ Works and achievements of organizational units within various concerned entities shall be reviewed to increase the effectiveness of the national coordination mechanism for addressing health risks within the country.
- ✚ Plans and strategies for health risk management shall be reviewed and updated based on lessons learned, in order to improve the quality of strategic planning processes for addressing health risks.
- ✚ The criteria to be used for measuring effectiveness shall be identified, and the necessary data for comparison and evaluation or performance indicators shall be collected.
- ✚ The validity of assumptions used in various analyses shall be identified, and the strength of the decisions made shall be evaluated.
- ✚ Procedures for dealing with health risks effectively shall be reviewed in terms of cost, to reduce losses when risks occur and to prevent their recurrence by analyzing the root causes of each incident for future avoidance.

6.2 Identifying the most important expected improvements in the health sector

The health sector, or the overall healthcare system, is expected to witness numerous strategic transformations in light of the significant consequences it has endured during exposure to various health risks. These changes are also driven by the gaps and weaknesses revealed by such crises. The ultimate goal is to develop a comprehensive health system equipped with trained competencies, robust infrastructure, and budgets for scientific research that contribute to confronting the challenges of health risks.

- ✚ The evaluation of risks related to preparedness and resource needs shall be integrated into the systematic evaluation processes of institutional, political, and economic risks, in addition to the existing financing mechanisms across relevant fields.
- ✚ The weaknesses of health systems and access to services during health emergencies shall be evaluated, and preparedness procedures shall be enhanced by integrating policies, plans, and operations across the health, economic, environmental, urban planning, and other relevant sectors.

- ✚ The health security system shall be promoted to occupy a leading position and ranking within the Overall System of Security whether in terms of prevention, treatment, prediction, or the management of health risks, disasters, and emergencies.
- ✚ Comprehensive management of epidemic and health disaster risks, including their prediction, challenges, analysis, and evaluation, shall be implemented. In this context, specialized competencies shall be provided, and the latest technologies and advancements in health risk management, evaluation, and prediction shall be utilized.
- ✚ Efforts shall be directed towards investing in the health sector, including its infrastructure and the production of medical supplies, equipment, and pharmaceuticals, to reduce dependence on local production.
- ✚ Efforts shall be directed towards formulating new strategies or enhancing current approaches in the field of scientific research, particularly in the field of epidemiology, infectious diseases, and the development of vaccines and medications.
- ✚ The current strategies for supply chains related to medical materials, equipment, and supplies shall be developed.
- ✚ More advanced therapeutic strategies in the field of mental health and psychological support for individuals and families during emergencies, crises, and disasters affecting individual health shall be developed.
- ✚ Strategies for digital technologies (and the automation of the healthcare sector) using modern technologies, including artificial intelligence, shall be developed.
- ✚ Strategies and technological applications for providing specific remote healthcare services shall be studied and developed to mitigate the potential for exposure to risk during natural, environmental, or other disasters.
- ✚ Strategic partnerships with the private healthcare sector shall be established to ensure its effective involvement in sharing the responsibilities of managing health risks alongside the public healthcare sector.
- ✚ The development of strategies for optimal utilization of certain facilities and infrastructure shall be studied, enabling their effective use to accommodate the volume of injuries and conduct a feasibility study for establishing field health facilities.
- ✚ Cooperation with regional and international organizations working in the health sector shall be enhanced to benefit from their expertise and resources.
- ✚ Coordination and cooperation with civil society organizations shall be enhanced, and the culture of volunteerism shall be promoted to support the healthcare sector during health emergencies.
- ✚ Innovative strategies for medical and health communication shall be developed, as it represents a new field arising from the current global crises.

6.3 Identifying the key expected improvements outside the health sector

Economic sector:

- ✚ New strategies for workflow shall be implemented, including remote work and adopting flexible work hours, a redefinition of the workday, and new methods for evaluating employee performance, all aimed at improving the health and productivity of individuals in the community.
- ✚ Specific strategies for encouraging investment in projects related to the health system and all of its components shall be developed.
- ✚ Specific strategies for providing personnel to enable greater health coverage, especially from the country's citizens, shall be developed.
- ✚ Specific strategies for financial incentives, such as unemployment benefits during health crises and disasters, shall be developed.

Education sector:

- ✚ Further strategies shall be developed to support the expansion of educational approaches in the fields of artificial intelligence and digital technologies, as well as to enhance remote learning processes.
- ✚ The strategic direction of educational institutions shall focus on introducing new curricula and developing academic and training programs in the field of prevention and control of health risks.

Community sector:

- ✚ Social studies shall be enhanced to understand population behaviors, in order to develop appropriate preventive inputs that align with social reality
- ✚ Health awareness shall be raised concerning methods that assist in the prevention and protection from health risks.
- ✚ There shall be an increase in individuals' levels of responsibility and dedication for health preservation, with particular attention given to the most vulnerable segments of society, including children, women, the elderly, and people with disabilities, to protect them from various health risks.

International Relations:

- ✚ A global methodology shall be established to manage and exchange healthcare data.
- ✚ Expertise shall be exchanged in the field of health risk management.
- ✚ The revival of the original national identity shall be emphasized, with a focus on self-reliance in formulating health policies that ensure the safety and security of the country's citizens.
- ✚ Strategic partnerships shall be established between countries or scientific and research institutions, particularly in the field of vaccine production, pharmaceuticals, and medical and health products.
- ✚ Health and security collaboration shall be enhanced to include threats to health and human security, considering the health security system as an integral part of the comprehensive security system in all countries.
- ✚ Participation in global efforts to optimize the work of international organizations in the field of health and disaster management shall be pursued, in order to enhance cooperation and the exchange of information and expertise between countries.

- ✚ The country's core capacities related to the International Health Regulations shall be enhanced, particularly concerning international strategies for collective precautionary measures between countries and across borders in response to pandemics and health emergencies.

Information Technology Sector:

- ✚ Huge data and artificial intelligence shall be harnessed to develop digital public goods that benefit the health sector.
- ✚ Fifth-generation technology, artificial intelligence, and huge data science shall be utilized to expedite healthcare processes through innovative applications.

6.4 Enhancing the process of future planning for health risk management

- ✚ The importance of health security shall be emphasized as a priority within the comprehensive national security system, with an understanding of the critical challenges arising from the spread of epidemics, disasters, and health risks.
- ✚ The importance of developing scientific capacities in health risk management, epidemics, and health disasters shall be emphasized, particularly by enhancing planning capabilities, including forecasting and predicting health risks and potential threats arising from their spread.
- ✚ All measures shall be taken to develop and support the healthcare system, contributing to the mitigation of gaps revealed by previous experiences.
- ✚ Mechanisms and agreements shall be developed to support international cooperation in combating epidemics and health disasters, particularly in the field of joint scientific research and supporting international organizations working in the health sector, thereby enhancing their human and material capacities to play an effective role in health risk management.
- ✚ All measures shall be taken to ensure preparedness and readiness to address epidemics and health risks through proactive scenarios, aiming to prevent the occurrence of health risks, avoid emergencies, disasters, and crises, and minimize their impacts and consequences on the health of the community.