REPUBLIC OF KENYA

MINISTRY OF HEALTH

NATIONAL 2019 NOVEL CORONAVIRUS CONTINGENCY (READINESS AND EARLY RESPONSE) PLAN

FEBRUARY-APRIL 2020

JANUARY 2020

FOREWORD

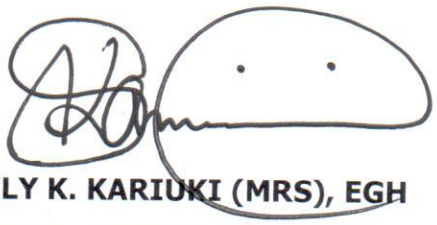
The Ministry of Health in its quest to accelerate attainment of highest standard of health for all Kenyans has set one of the policy objectives as elimination of communicable conditions that aims to reduce the burden of communicable diseases, till they are not of major public health concern. In this regard, the threat posed by the current outbreak of Novel Coronavirus 2019 (2019-nCoV) in China and twenty-four (24) other countries cannot be taken lightly.

A preliminary risk assessment by the Ministry has highlighted key risk factors for importation of 2019-nCoV into the country as the enormous trade and human traffic between China and Kenya, high population of Chinese citizens in the country and high number of Kenyan students in China, refugees in Kakuma and Daadab, some social cultural practices among the local Kenyan population and several non-official entry points among others.

This contingency plan is drawn against the risk factors outlined above. The WHO Regional Office for Africa has also identified Kenya as a high-risk country for introduction of the novel Coronavirus 2019. The WHO has advised on adoption of epidemic preparedness and response strategies including multi-stakeholder collaboration, enhanced surveillance at Points of entry (POEs), enhanced laboratory capacity, case management and infection prevention and control (IPC) and enforcement of International Health Regulations (IHR 2005) including research and operational support and logistics.

The Ministry of Health has put in place a multifaceted approach to address the novel Coronavirus 2019 threat. Enhanced surveillance has been be mounted at the major air and sea entry points, high alert among health workers in public and private health facilities and strengthened community-based disease surveillance. Based on this risk assessment, efforts towards 2019-nCoV preparedness measures have been initiated and will continue. The measures prioritize prompt case detection, infection prevention and control, risk communication and community engagement, point of entry screening, laboratory confirmation, quarantine and isolation measures including mechanisms to offer effective supportive case management. Kenya enjoys immense experience having offered support to West Africa during the biggest Ebola outbreak in human history in 2014-2016 and the 2009 H1N1 pandemic response.

Both the Emergency Operation Centre and a Coronavirus National Taskforce and its technical sub committees that will steer the measures outlined above have been activated. Strong involvement of county leadership and health management teams of prioritized counties will go a long way to realize success of this plan. In addition, the involvement of our health and development partners is appreciated and will enable Kenya realize the goal to keep the country free of the novel coronavirus and respond promptly in the event that a case is imported.



SICILY K. KARIUKI (MRS), EGH

CABINET SECRETARY FOR HEALTH

PREAMBLE

This novel Coronavirus 2019 Contingency plan seeks to put in place the requisite preparedness measures to prevent the introduction of imported cases into Kenya. The ongoing outbreak in China and twenty – four other countries in the world has demonstrated the ability of the virus to spread across many continents quickly and the need for strategies and plans for prevention and preparedness for introduction of Coronavirus by all countries globally including Kenya.

Kenya is a regional transport and trading hub and has numerous formal and informal points of entry into and out of the country. For these reasons, the country is at high risk of importation of cases if adequate preventive measures are not put in place in the countries with ongoing transmission. The country supported the West African outbreak in 2014-2016 with surge staff and effectively responded to the 2009 H1N1 pandemic and these went a long way in protecting the country as well as building minimum response capacity for Kenya.

The Country is currently conducting enhanced surveillance activities at international airports and sea port and high-risk land crossing points. However, these interventions are still inadequate and more resources need to be mobilized to enhance the preparedness and early response measures.

This contingency plan envisages a three-month period of preparedness and readiness for timely response in the event of importation of a case. To ensure the success of the implementation of this contingency plan, all stakeholders including the National Government, the County Governments, UN agencies, CDC Kenya, the civil society and private sector need to work together.

My special thanks go to all the stakeholders who participated in the development of the plan and the National Task Force for consolidation of all stakeholders' inputs.

DR. RASHID A. AMAN, BPHARM, PHD

CHIEF ADMINISTRATIVE SECRETARY

MINISTRY OF HEALTH

ACKNOWLEDGEMENTS

The development of this National 2019 Novel Coronavirus (2019-nCoV) Contingency Plan was made possible by technical assistance from WHO Kenya Country Office and US CDC; guidance by the National 2019-nCoV Taskforce; the immense work of 2019-nCoV Sub Committees and coordination of the 2019-nCoV Secretariat through the leadership of the Division of Disease Surveillance and Response (DDSR) of Ministry of Health.

The Ministry of Health wishes to acknowledge and express special gratitude to the following partners that joined and provided technical support to the 2019-nCoV sub committees for their contributions in the preparation and production of this plan.

Partners

WHO - KCO
UNICEF - KCO
CDC – Kenya
Washington State University (WSU)
Africa CDC

Ministry of Health, Line Ministries, Semi-Autonomous Government Agencies (SAGA)

Department of Disease Surveillance and Epidemic Response
Department of Environmental Health
National Public Health Laboratories
Division of Quality Improvement
Field Epidemiology and Laboratory Training Program (FELTP)
Emergency Operation Centre (EOC)
Kenyatta National Hospital (KNH)
National Disaster Operation Center (NDOC)
Kenya Medical Research Institute (KEMRI)

We wish to acknowledge many others who contributed in one way or another directly and indirectly to the entire process and whom we may not have mentioned here by name. Finally, we acknowledge Dr. Daniel Langat, Dr. Lynda Makayoto, Dr. Kadondi Kasera, Dr. James Teprey, Dr. Nollascus Ganda, Dr. Elizabeth Mgamb, Mercy Kyeng and Gideon Emukule.

SUSAN N. MOCHACHE, CBS

PRINCIPAL SECRETARY

MINISTRY OF HEALTH

EXECUTIVE SUMMARY

On 31st December 2019, the World Health Organization (WHO) was informed of a cluster of cases of Pneumonia of unknown cause detected in Wuhan City, Hubei Province, Peoples' Republic of China. This was subsequently confirmed as an outbreak of a new type of coronavirus, 2019 novel Coronavirus (2019-nCoV) by the National Health Commission, Peoples' Republic of China and the WHO. As of 5th February 2020, 24554 confirmed cases and 491 deaths had been reported globally out of which 24363 cases and 491 deaths have been reported in China. One hundred and ninety – one (191) confirmed cases including one (1) death have been reported outside of China in twenty-four (24) countries.

This being a novel virus, research is ongoing to better understand its dynamics of transmission, management among others. There are risks for importation of the virus into the country. The 2019-nCoV may have potential to cause many infections through human-to-human transmission and lead to a significant number of severe cases that could overwhelm the health care system, and a substantial number of deaths. However, if people with 2019-nCoV are detected in a timely manner and rigorous infection control measures are applied, the likelihood of sustained human-to-human transmission can be reduced.

Owing to the foregoing, there is need for Kenya to implement effective measures that will prevent this disease from spreading into the country. The Ministry of Health has therefore constituted a National Coronavirus Taskforce to evaluate the evolving risk and advise the Government on appropriate measures for preparedness, prevention and response in order to mitigate the Public Health impact in the event of an outbreak. Additionally, the Ministry has developed this contingency plan which will guide overall preparedness, readiness and response activities.

I therefore appeal to all health managers at national and county levels, health workers, relevant government departments and health partner organizations to implement the strategies articulated in this plan within the recommended coordination structures.

Thank you.

DR PATRICK AMOTH
AG. DIRECTOR GENERAL
MINISTRY OF HEALTH

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1.0 INTRODUCTION

1.1 What is Corona Virus?

Coronaviruses are a family of viruses that infect both animals and humans. Human coronaviruses can cause mild disease similar to a common cold, while others cause more severe disease (such as MERS - Middle East Respiratory Syndrome and SARS – Severe Acute Respiratory Syndrome). Some coronaviruses that are found in animals can infect humans – these are known as zoonotic diseases. Human coronaviruses are usually spread through droplets (coughing) and close personal unprotected contact with an infected person (touching, shaking hands). The Signs and symptoms are typically respiratory symptoms and include fever, cough, shortness of breath, and other cold-like symptoms.

1.2 Previous Corona Virus Disease Outbreaks

Year(s)	Country	Corona Virus subtype	No. of cases	No. of deaths	Situation
2002-2003	China	SARs	8,098 probable cases	774 (10%)	In Guangdong Province
2012-2019	Arabian Peninsula	MERs COV	2,400 lab confirmed cases	850 (35%)	

1.3. The Novel Corona Virus

An outbreak of pneumonia of unknown etiology was initially reported in Wuhan city in China in 31st December 2019. Subsequent investigations identified the causative pathogen as novel corona virus (2019-nCoV). As of 6th January 2020, a total of 2,014 laboratory confirmed cases had been reported globally: 1,985 in China and 29 have been reported in 10 countries (Australia, Vietnam, USA, Thailand, Malaysia, Korea, Japan, Nepal and Singapore)

What is known about the disease identified in Wuhan China?

- It is caused by a novel coronavirus (called 2019-nCoV)
- Infection with this virus causes respiratory disease ranging from mild to severe disease.
- Some infected patients have died from infection (people with serious underlying medical conditions are more at risk for severe disease and death)

What is NOT known about the disease?

- Where it came from?
- How easily is it spreads between people?
- Who is vulnerable to infection?

1.4. Justification of the Contingency Plan

On 30th January, 2020 the WHO Director-General declared that the ongoing outbreak of 2019-nCoV constitutes a public health emergency of international concern (PHEIC).The WHO defines a PHEIC as an "extraordinary event" that "constitute[s] a public health risk to other States through the international spread of disease" and "potentially require[s] a coordinated international response."

Currently there is an ongoing Novel Corona Virus Disease (2019-nCoV) outbreak in China. There is a large Chinese community in Kenya with frequent movement and trade between Kenya and China with 2 flights to China Daily with 75,000 passengers per year. About 85 Kenyans study at Universities in Wuhan, China.

The 2019-nCoV may have potential to cause many infections through human-to-human transmission and lead to a significant number of severe cases that could overwhelm the health care system, and a substantial number of deaths. However if people with 2019-nCoV are tested and diagnosed in a timely manner and rigorous infection control measures are applied, the likelihood of sustained human-to-human transmission can be reduced."

Kenya has been identified by WHO Africa Regional Office as a priority one country for preparedness for the 2019-nCoV as the situation is rapidly evolving.

Kenya is a signatory to the International Health Regulations (IHR) (2005) that entered into force in 2007 and has two overarching objectives (Article 2):

- To set out obligations and mechanisms for "a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade"; and
- To strengthen the preparedness and capacities of countries so they can proactively detect, assess, report and address acute public health threats early.

The IHR (2005) seek to balance the sovereignty of individual States Parties with the common good of the international community, and take account of economic and social interests as well as the protection of health. Under the IHR (2005), governments are entitled to implement public health measures to protect the health of their populations during public health events respecting three golden rules, which are that such measures must be based on scientific principles, respect human rights, and not be more onerous or intrusive than reasonably available alternatives. When measures exceed these parameters, countries are obliged to provide the public health rationale to WHO within 48 hours of implementation, and to rescind the measures if they are deemed unjustified.

The Ministry will also use this opportunity to review and invest in the routine Integrated Disease Surveillance and Response (IDSR) system to meet the international required standards. This plan outlines activities that will enhance prevention, surveillance, early detection and response activities in line with evolving priority disease threats and IHR (2005).

1.5. Case Definition for Novel Coronavirus (2019-nCoV)

The case definition is based on the current information available and may be revised as new information accumulates.

Suspect case

Any person with any acute respiratory illness (fever or cough or difficulty in breathing) **AND** at least one of the following:

- A history of travel to or residence China in the 14 days prior to symptom onset, **OR**
- Close contact* with a confirmed or probable case of 2019-nCoV in the 14 days prior to illness onset, **OR**
- Close contact* with an individual with a history of respiratory illness and travel to China within the last 30 days, **OR**
- Worked or attended a health care facility in the 14 days prior to onset of symptoms where patients with hospital-associated 2019-nCov infections have been reported.

Probable case

A suspect case for whom testing for 2019-nCoV is inconclusive** or for whom testing was positive on a pan-coronavirus assay.

Confirmed case

A person with laboratory confirmation of 2019-nCoV infection, irrespective of clinical signs and symptoms.

***Close contact** is defined as:

- Working together in close proximity or sharing the same classroom environment with a 2019-nCoV patient
- Traveling together with a 2019-nCoV patient in any kind of conveyance
- Living in the same household as a 2019-nCoV patient
- Health care associated exposure, including providing direct care for 2019-nCoV patients, working with health care workers infected with novel coronavirus, visiting patients or staying in the same close environment as an 2019-nCoV patient.

The epidemiological link may have occurred within a 14- day period before or after the onset of illness in the case under consideration.

**Inconclusive being the result of the test reported by the laboratory.

When a case meeting the working case definition is detected, the detecting entity is required to notify the next supervising level and the Head, Division of Disease Surveillance and Response on the following hotlines **0732353535/ 0729471414/ 0800721316** immediately, and **not later than 24 hours**.

Follow up of contacts will be ensured for a minimum period of 14 days by Ministry of Health and the County Health Teams.

Safe handling, transportation and processing of samples from suspected cases shall be a priority for all. Triple packaging supplies will be availed at national level and all at risk counties. All specimen will be sent to NIC and other referral laboratories

1.6. Risk Factors for Novel Corona Virus Disease Outbreak in Kenya

The following have been identified as risk factors for importation of Corona virus in Kenya.

1.6.1. There is brisk trade and business between China and Kenya which involves movement of humans and goods. At least 75,000 passengers from China pass through JKIA annually.

1.6.2. Large Chinese community settled in several parts of the country & they receive visitors from China and a large Kenyan Community in China including students

1.6.3. Socio-cultural practices including handshaking and poor health seeking behavior

1.6.4. Mombasa has one of the largest sea ports in East Africa where goods and humans pass through daily.

1.6.5. Fourteen 14 counties are considered to be at high risk. These counties are either counties with international airports, sea ports or have major land border crossing or have a high Chinese population. The counties are: **Nairobi, Mombasa, Kisumu, Kiambu, Uasin Gishu, Kajiado, Machakos, Kakamega, Nakuru, Garissa, Wajir, Busia, Kilifi and Migori.**

2.0 SCENARIOS

There are four likely scenarios that could happen in Kenya in case of Corona Virus Disease outbreak. These are elaborated below:

2.1 Scenario One

An outbreak in a country with close linkages with Kenya with sustained human to human transmission but no case reported in Kenya. Alert, preparedness and readiness.

The EOC will be partially activated with minimum required staff for operations and coordination.

2.2 Scenario Two: Best Case Scenario

One suspected case showing signs and symptoms of 2019-nCoV arrives in the country from the affected areas through one of the key points of entry. The suspected case is promptly recognized and isolated.

The suspected case is handed over to the Kenya Port Health authorities and transferred to an observation center and later a treatment center. There is no local transmission. There may be approximately 450 contacts (passengers on the plane and airport staff) that may be followed for fourteen days.

There will be limited disruption in the national socio-economic structure as well as panic in the population in the urban area.

The Ministry of Health with the support of partners can respond to this best-case scenario.

The EOC and its protocols and Standard Operational Procedures (SOP) will be activated with required staff for operations and coordination.

2.3 Scenario Three: Most Likely Scenario

An asymptomatic case arrives in the country through one of the points of entry undetected. The case develops signs and symptoms of 2019-nCoV within the local community before seeking medical attention in a health facility. The case interacts with community members and frontline health workers before diagnosis is made.

Over 1000 primary contacts are identified and isolated. Fifty percent (500) develop the disease within fourteen days, 20% (100) progress to severe disease including pneumonia, respiratory failure and 5% (25) of those who developed the disease die and are safely buried in the community. Several contacts of contacts develop the disease and are isolated in the treatment centers. The National and County governments will initiate a response. There will be urgent need for more treatment centers, human resource and supplies including personal protective equipment (PPEs), body bags, disinfectants and community sensitization and mobilization teams.

Approximately 2,000 to 6,000 contacts and contacts of contacts may need to be followed up over a period of three months.

There will be fear and panic in the community. There will be absenteeism among health care workers and some may threaten to stop work. Similar situations will be occurring across the other socioeconomic sectors. Panic purchase of drugs for self-medication and food will increase which may create shortage. Tourism industry may be affected. Some airlines may threaten to stop flying to Jomo Kenyatta International Airport (JKIA). Some neighboring countries may contemplate closing their borders. The refugee communities will be demanding for stockpiles as well as health promotion activities. There will be conflicting reports from the media and wild rumors will be spreading creating more panic. Some communities may threaten health workers in observation and treatment centers. Voluntary migration from affected areas may be witnessed. External technical assistance and resources from outside may not be available immediately. National emergency is declared.

The EOC and its protocols and Standard Operational Procedures (SOP) will be activated with required staff for operations and coordination. The Steering committee will advise the Cabinet Secretary to elevate the response to the National Disaster Operations Centre in the office of the President.

2.4 Scenario Four: Worst Case Scenario

There are unexplained respiratory illnesses reported in a community. Some of the sick will report to the nearby health facilities. Health workers are alerted and there will be initial response. The Ministry of Health is called to investigate the outbreak and it is confirmed as 2019-nCoV. Several close contacts begin to get sick including health workers. Some deaths are reported including health workers. There is high person to person transmission in several communities in different counties . The system is overwhelmed. There will be a very high number of contacts who will be dispersed across several communities and counties. A national disaster is declared.

The EOC and its protocols and Standard Operational Procedures (SOP) will be activated with required staff for operations and coordination. The response will be coordinated from the National Disaster Operations Centre in the office of the President.

2.5 Triggers

According to the Ministry of Health definition:

2.5.1 Realization that Kenya is at high risk of importation of the 2019-nCoV will trigger the Alert and Preparedness phase of this plan.

2.5.2 **One confirmed case** of 2019-nCoV in Kenya **(an outbreak)** will activate the response phase of this plan.

2.5.3 When there is evidence of sustained human to human transmission in Kenya the Government will declare a **National disaster**. A wider government sector approach including the UN humanitarian cluster will be activated.

3.0 CONTINGENCY PLAN

3.1 Overall Objective

This plan is intended to guide preparedness, early detection and early response for 2019-nCoV in the Republic of Kenya. During an outbreak a rapid risk and needs assessment will be conducted and the plan updated. This contingency plan proposes activities and provides guidance on roles, responsibilities and procedures that would be necessary to facilitate the process of decision-making. This is especially important as the current threat of 2019-nCoV outbreak is such that an optimum state of readiness for detection and early response is needed

3.2 Goal

Prevent, promptly detect and effectively respond to any 2019-nCoV outbreak to reduce morbidity and mortality in the country.

3.3 Specific Objectives

3.3.1 Enhance Coordination and leadership for 2019-nCoV prevention and control

3.3.2 Enhance National and County capacity to promptly detect cases and follow-up all contacts

3.3.3 Isolate and care for patients early, including providing optimized care for infected patients

3.3.4 Limit human-to-human transmission including reducing secondary infections among close contacts and health care workers, preventing transmission amplification event

3.3.5 Communicate critical risk and event information to policy makers, institutions, health workers and the general public

3.4 Planning Assumptions for the Most Likely Case Scenario

The contingency plan has elements for preparedness, response and early recovery phases. The key assumption is that the identified pre disaster structures, systems and capacities must be in place before the disaster phase.

It is estimated that between 400 and 600 2019-nCoV cases, 2000 t0 6000 contacts and families may be affected. During the initial outbreak, rumors and public health education will cause outpatient attendance for fevers to increase.

The available capacity within the national and county governments, United Nations, the private sector, non-governmental organizations (NGOs), civil society organizations (CSOs) and National Disaster Operations Center (NDOC) will be able to respond to the outbreak.

For planning purposes, the following 14 counties are considered to be at high risk: **Nairobi, Mombasa, Kisumu, Kiambu, Uasin Gishu, Kajiado, Machakos, Busia, Nakuru, Garissa, Wajir, Busia, Kilifi and Migori**. These counties are either counties with international airports or have major land border crossing or have a high Chinese population.

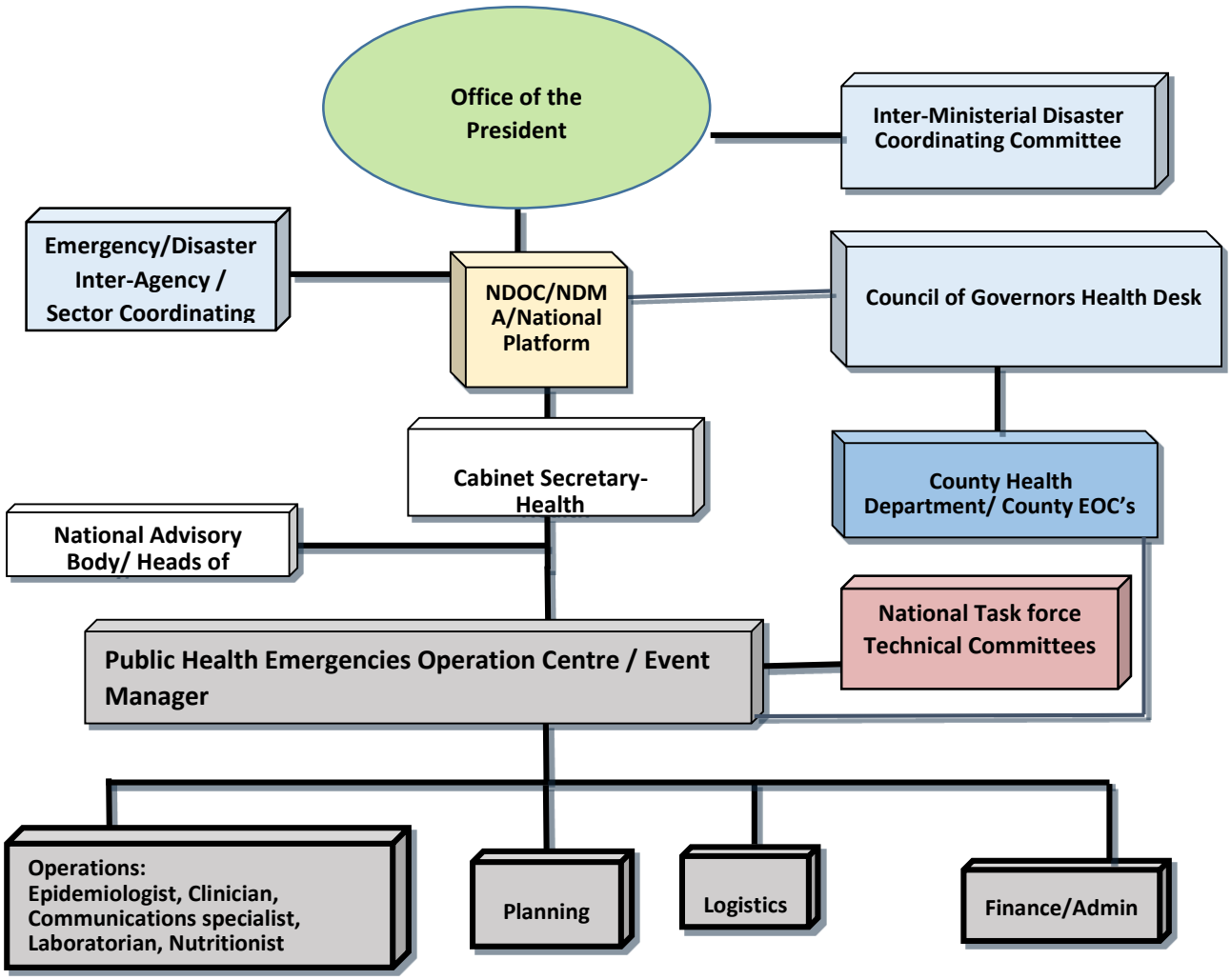
3.5 Strategies

1. High level advocacy with National and County Leadership
2. Strengthening Intra-sectoral, Inter-sectoral coordination, engagement and partner participation
3. Mobilize internal and external resources including county emergency resources and reallocation of resources at all levels
4. Strengthening core capacities for early detection, response and early recovery
5. Communication strategy around the outbreak including media involvement
6. Engage community structures for the response targeting the main source of potential transmission

3.6 Coordination Mechanisms

3.6.1. The National Coordination Structure

At the national operational level the following agencies are mandated by presidency to implement emergency/disaster response activities; NDMU, NDMA, National Defense Response Unit and NDOC. The NDOC is mandated to coordinate emergencies and disasters, and here all line ministries are represented by their Disaster Risk Management focal points.



3.6.2. Executive Oversight

Overall oversight for implementation of this plan will be provided by the National Public Health Emergency Steering Committee chaired by the Cabinet Secretary of the Ministry of Health. The role of the steering committee is to provide policy, strategic directions and resource mobilization for the response

The members of the steering committee include:

- Cabinet Secretaries of Ministries of Interior, Education, Foreign affairs, Agriculture, livestock and fisheries
- Director, National Disaster Operation Centre
- Director, National Disaster Management Agency
- Heads of UN Agencies, US CDC, responding NGOs, Africa CDC, and other Governmental bodies
- Kenya Red Cross

When a national disaster is declared the Office of the President will oversee coordination of response.

3.6.3. The National 2019-nCoV Task Force

The National 2019-nCoV Task Force is established with membership drawn from the Ministry of Health, other relevant Government agencies, the UN, development partners, NGOs, CSOs among others. The mandate of the taskforce is to review the evolving threat from the 2019-nCoV outbreak situation in China and other affected countries, regularly offer technical advice to the Ministry of Health and other line ministries on appropriate measures to secure the country, joint planning and monitoring of the response as well as information management. Similarly, County coordinating Committees will be constituted. The task force shall have a secretariat whose main functions will be:

i. Convening 2019-nCoV Task Force and outbreak coordination meetings
ii. Prepare and release daily and weekly SITREPS
iii. Prepare regular media updates that will be released by the cabinet secretary of Health Services
iv. Conduct regular risk and needs assessment.
v. Manage communication hotlines
vi. Facilitate simulation exercises

The National 2019-nCoV Taskforce will have the following technical sub-committees which will develop their terms of reference (TORs)

- Coordination
- Surveillance and Laboratory
- Case Management and Infection prevention and control
- Risk communication
- Logistics

3.7 Key Priority Ministries and Sectors collaboration for the Response

No single agency, ministry or sector can respond to disasters when they occur. If widespread illness hits a society or a community, this could result in sudden and significant shortages of personnel to provide essential services. Staffing is a critical element in business continuity plans. Providers of essential services (e.g. water and energy) depend on critical goods and services to maintain their operations. These goods and services are supplied by other providers that in turn depend on others to operate. Each of the providers needs to map out these critical interdependencies and plan to address possible disruptions in the supply of critical goods and services.

The health sector has identified the type of essential services to be provided by the critical non health sector in order to plan the measures that might be required to assure continuity of the essential services provided by the health sector. Additionally, the health sector has estimated what impact the public health event could have on such services and what any specific disruption (moderate or serious, temporary or prolonged) or complete breakdown might have for the response capacities of the government, on the health and life of the population and on society and economy.

The details of the providers of those services and their locations have been identified. Those service providers and key actors should be informed about the provisions of the Health Sector 2019-nCoV Preparedness & Response Plan. Preferably, they should become more actively involved during the operationalization of the plan such as in business continuity planning, simulation exercises, etc.

MOH shall in the preparatory phase notify them to be part of the multisector contingency planning and facilitate them to have their individual business continuity plans. They are members of the Task Force and will be invited to join the Health Sector in the task force.

3.7.1. Business Continuity

Business continuity plans of the key sectors are at the heart of preparing the whole of society for 2019-nCov. MOH should facilitate the business continuity planning for all critical interdependencies.

The following are other important line ministries and services that the health sector will depend on in order to provide essential lifesaving services and functions during the response phase. They will be facilitated to develop their own business continuity plans that will be linked to the multi sector 2019-nCoV response plan

Table 2: Priority Sector Dependencies

State Department	Service
Ministry of Water & Sanitation	Safe water supply to health facilities, hand washing facilities for the public
	Sanitation and hygiene
Ministry of Energy	Power to operate most medical machines
	Power for lighting, particularly on dangerous spots
	Power for communication equipment
Ministry of Information, Communication and Technology (ICT)	To disseminate information about diseases
	To educate the public
	To follow up and coordination
	Communication in remote areas as an alternative to other modes that are static
	Use of media to disseminate health messages
	Assist health institutions to communicate
Ministry of Transport, Infrastructure, Housing, Urban Development and Public Works	Setting up of isolation, quarantine and treatment centers
	Movement of personnel and commodities
	Health promotion campaigns
The National Treasury and Planning	Resource mobilization and allocation (personnel, equipment and supplies)
	Avail contingency funds
Ministry of Interior and Co-ordination of National Government	Coordination of preparedness and response at national and county levels
	Obtain travelers detailed contact information when required for public health response
	Crowd control during emergencies
	Protection of isolation health infrastructure from invasion.
	Protection of health workers and materials
	To reduce vulnerability particularly of women and girls to heinous crimes such as gender-based violence
Ministry of Defense	Hard to reach areas the military assist in transport and security
	Logistical support
	Provide lifesaving health services
Ministry of Agriculture, Livestock, Fisheries and Irrigation	Animal surveillance and intelligence
Ministry of Education	Social marketing of health activities
	Education for community health action.
Ministry of Foreign Affairs	Diplomacy and regulation of external support
	External resource mobilization

4.0 IMPLEMENTATION OF THE PLAN

This is a 3 months plan for preparedness, readiness and early response between February and April 2020

4.1 Direct Institutional Contact

Communication to designated institutions shall be made through official channels from the Principal Secretary, Ministry of Health.

4.2 County Involvement

Counties will be involved through the Council of Governors with communication from the Office of the Director General of Health.

4.3 Costed Implementation Plan

The priority activities for to prevent spread of 2019-nCoV into the country and strengthening capacity for preparedness and early response will be carried out in the three months. The color code below is intended to guide the actions required for critical actions required for readiness (yellow) and early response (red).

Specific Objective	Activities	Sub-Activities	Timeline			Budget
Coordination			**Feb**	**Mar**	**Apr**	
			Readiness Actions	**Early Response**		
Enhance coordination and leadership for 2019-nCoV prevention and control	Hold National Public Emergency Steering Committee meetings	Convene weekly National Public Emergency Steering Committee meetings	x	x	x	120,000
	Hold 2019-nCoV taskforce meetings	Convene weekly 2019-nCoV taskforce meetings	x	x	x	360,000
	Hold County stakeholders meeting	Convene County stakeholders meeting for CECs, Directors and Disease surveillance officers	x			6,556,500
	Develop National 2019-nCoV contingency plan	Develop National 2019-nCoV contingency plan	x	x	x	105,000

	Counties to adopt and customize the 2019-nCoV contingency plan	Support Counties to adopt and customize the 2019-nCoV contingency plan		x	x	4,700,000
	Conduct Simulations	Conduct National TTX simulation	x			375,000
	Support EOC operations	Provide Operational support to national EOC	x	x	x	12,000,000
	Conduct periodic assessments	Conduct Multisectoral risk and needs assessment	x	x	x	4,000,000
	Conduct monitoring visits to health Counties, Sub-Counties, health facilities and communities	Conduct Monitoring visits to health Counties, Sub-Counties, health facilities and communities	x		x	5,000,000
		Sign MOUs with key partners for response (Kenya Red Cross, other NGOs, private hospitals etc.)	x			0
		Map potential isolation, quarantine and treatment units in facilities in the 14 counties	x			0
Total						**33,216,500**
Specific Objective	**Activity**	**Sub Tasks**	**Timeline**			**Budget**
Surveillance and Laboratory			**Feb**	**Mar**	**Apr**	
Early detection and confirmation of cases	Print and Distribute surveillance tools and SOPs	Print and distribute the 2019-nCoV case definition, contact tracing forms, follow up forms and other surveillance SOPs to all HFs (including private)	x	x	x	8,000,000
	Enhance screening at PoEs	Procure 15 thermo scanners and 200 thermo guns train staff, pay allowances	x	x	x	28,500,000
		Print and Distribute the travellers forms	x	x	x	900,000

		Train 100 PoEs health staff on 2019-nCoV screening, detection and IPC				5,650,000
		Sensitize 300 non health PoE staff in JKIA, Kisumu, Mombasa, Eldoret and Wajir				600,000
		Allowances for all frontline workers during early response in 14 counties				5,000,000
	Referral of suspected cases from PoE to Observation and 2019-nCoV treatment centers	Facilitate referral of suspected cases from PoEs to link health facilities, hiring of ambulances, disinfection	x	x	x	1,000,000
	2019-nCoV indicator and event based surveillance	Print and distribute MOH 502, 503 & 505 and 2019-nCoV investigation forms	x	x	x	15,000,000
		Print and distribute IDSR guidelines and training modules	x	x	x	16,000,000
		Conduct CHMTs and Sub CHMTs training on 2019-nCoV detection, reporting, investigation, contact tracing, sample collection and shipment	x	x	x	18,144,000
		Conduct health workers training for 4 staff from each of the 14 county referral facilities on 2019-nCoV detection, reporting, investigation, contact tracing, sample collection and shipment	x	x	x	2,436,000

		Sensitize health workers on 2019-nCoV detection, reporting, investigation, contact tracing, sample collection and shipment	x	x	x	16,600,000
	Enhance early warning for 2019-nCoV at community level	Sensitize community health volunteers on community event-based surveillance in high risk counties	x	x	x	14,000,000
	Investigate all suspected cases	Train nation rapid response teams (RRTs)				2,940,000
		Train county RRTs in 14 selected counties	x			5,075,000
		Allowances, fuel and vehicle maintenance for the RRTs	x			5,000,000
		Facilitate contact tracing (airtime, fuel, allowances)				7,500,000
	Laboratory confirmation of 2019-nCoV	Procure sample collection and packaging supplies	x	x	x	15,000,000
		Procure Reagents and transport media (Primers, probes, etc.)	x	x	x	30,000,000
		Shipment of samples to NIC and referral labs	x	x	x	4,440,000
		Train laboratory staff (2 per county) on sample collection, packaging and shipment	x	x	x	3,300,000
	Prepare guidelines and SOPs on biosafety and biosecurity lab measures for 2019-nCoV	Adapt 2019-nCoV biosafety and biosecurity guidelines and SOPs for level 4 & 5 hospitals	x	x	x	19,000,000
		Disseminate biosafety and biosecurity guidelines and SOPs in labs in high risk areas	x	x	x	

Total						**224,085,000**
Specific Objective	**Activity**	**Sub Tasks**	**Timeline**			**Budget**
Case Management, IPC and psychosocial support			**Feb**	**Mar**	**Apr**	
Isolate and care for patients early, including providing optimized care for infected patients	Availing essential 2019-nCoV guidelines in all 47 counties	Adapt Case Management Guidelines	x			10,000,000
		Adapt IPC Guidelines	x			
		Adapt Treatment Centre Organisational Management Guidelines	x			
		Adapt Community IPC Guidelines	x			
		Printing and distribution of guidelines	x			
	Optimum management of cases of 2019-nCoV	Frontline Workers Training on case management, IPC and psychosocial support in 14 high risk counties	x			6,384,000
		TOT training on case management, IPC, WaSH and psychosocial support	x			2,940,000
		Provision of hand washing and disinfection facilities in communities, facilities and institutions	x			10,000,000
		Allowances for all frontline workers during early response in 14 counties				14,000,000
	Total					**43,324,000**
Specific Objective	**Activity**	**Sub Tasks**	**Timeline**			**Budget**
Risk Communication			**Feb**	**Mar**	**Apr**	

Communicate critical risk and event information to policy makers, institutions, health workers and the general public	Develop communication plans	Develop 2019-nCoV risk communication plan	**x**			3,000,000
		Develop a nCOV community engagement plan	**X**			100,000
		Conduct operational research (desk reviews, anthro studies) on risky behaviour pertaining to 2019-nCoV for frontline workers including health workers	x	x	x	100,000,000
	Training	Re-orientation of ACSM committees at National & County levels on risk comm guidelines, key messages, key approaches and platforms to be used				
		Training of media spokes persons				
	Design key messages for different audiences	Develop key messages for different audiences (media spokes-person, policy makers, the public, health care workers, CHVs)				
	Disseminate key messages	Print and distribute IEC materials (Posters, brochures, roll up banners, fact sheets)				
		Publish electronic IEC materials through all media outlets				
	Social Mobilization	Organize at least one community dialogue session in each community in the 14 high risk counties and among high risk groups	x	x	x	

		Intensify community mobilization activities for awareness creation/raising, case finding/ reporting and contact tracing	x	x	x	
		Engage key stake holders (Religious Leaders & bodies, Health Professionals and traditional leaders)	x	x	x	
		Hold public barazas during preparedness phase	x	x	x	
Total						**103,000,000**
Specific Objective	**Activity**	**Sub Tasks**	**Timeline**			**Budget**
Logistics and Supplies			**Feb**	**Mar**	**Apr**	
Procure supplies for 2019-nCoV preparedness and response	Procurement and prepositioning of contingency stocks	Take stock for supplies for 2019-nCoV response from all sub committees	x	x	x	350,000,000
		Pharmaceutical and Non pharmaceutical commodities for 2019-nCoV (see WHO Medical accessories list)	x	x	x	
		Procure intensive care equipment for managing severe cases for the 14 high risk counties (Intubation, oxygen concentrators, suction machines respiratory support machines etc.)	X			
		Disinfectants and antiseptics (Hand sanitizers, Knap sack sprayers, in treatment centres and public places)	x	x	x	

		Patient care equipment	x	x	x	
		Procure relevant Personal Protective Equipment (Gowns, boots, Goggles/Face shields, Gloves, face masks etc.)	x	x	x	
		WASH supplies	x	x	x	
		Set up 14 temporary treatment centres in high risk counties (tents, power back up, beds, sanitation)	x	x	x	70,000,000
Total						**420,000,000**
Grand Total						**823,625,500**

5.0 MONITORING AND EVALUATION PLAN

There will be monthly monitoring of implementation of activities summarized by the EOC to the Steering Committee.

The EOC will continue to produce weekly situation reports after receiving inputs from all partners during the national task force meeting

Joint multi partner and multi sector assessments, field monitoring visits will be coordinated at the various levels by the Steering Committee, the National Task Force, EOC and Sector Leads. The assessment reports will be analyzed and triangulated at EOC and integrated into the monthly monitoring of implementation activities.

	Indicator	Indicator Definition	Frequency	Source of Data	Responsible Person	Base line	Target Feb	Target Mar	Target Apr
Result Area 1: Enhanced Coordination and leadership for 2019-nCoV prevention and control									
Enhanced leadership and coordination	Availability of an approved National 2019-nCoV contingency plan		One off	Approved plan	Head, Directorate of Public Health	0	1		
	Proportion of counties with county specific costed 2019-nCoV contingency plans	**Numerator:** Number of counties with costed county specific 2019-nCoV plans **Denominator:** Total number of counties	One off	Approved county specific plans	County Directors of Health	0	100%		
	National 2019-nCoV Task force meetings held weekly	**Numerator:** Number of meetings held per month **Denominator:** Expected number of meetings per month	weekly	Minutes of meetings	Head, Directorate of Public Health	0	4	4	4
	Proportion of counties with functional multi-	**Numerator:** Number of counties holding meetings fortnightly	Fortnightly	Minutes of	County Directors of Health		2	2	2

	sectoral coordinating committees for 2019-nCoV prevention and control	**Denominator:** Number of counties		meetings					
	County stakeholders meeting conducted		One off	Meeting Report	Head, DDSR	0	1		
	National simulation exercise conducted		One off	Simulation reports	Head, DDSR	0	1		
	Indicator	**Indicator Definition**	**Frequency**	**Source of Data**	**Responsible Person**	**Base line**	**Target Feb**	**Target Mar**	**Target Apr**
Result area 2: Enhanced national and county capacity to promptly detect cases and follow-up all contacts									
Enhanced screening at PoEs	Number of thermo-scanners procured	Number	One off	Availability of Thermo-scanners	Head, DDSR	0	15		
	Number of thermo-guns procured	Number	One off	Availability of thermo-guns	Head, DDSR	0	200		
	Number of PoEs with travelers forms	Number	Quarterly	Availability of travelers forms	Head, DDSR	1	4		
	Number of PoEs health staff trained on 2019-nCoV screening,	Number	Quarterly	Training reports	Head, DDSR	57	100		

	detection and IPC								
	Number of non-health PoE staff in JKIA, Kisumu, Mombasa and Eldoret sensitized on 2019-nCoV	Number	Monthly	Sensitization Reports	Head, DDSR	0	300		
Enhanced 2019-nCoV indicator and event-based surveillance	Proportion of counties with 2019-nCoV case definitions and investigation forms	**Numerator**: No. of counties with 2019-nCoV case definitions and investigation forms	Monthly	Availability of the forms in counties	Head, DDSR	0	100%		
		Denominator: No. of counties							
	Number of CHMT and SCHMT members training on 2019-nCoV detection, reporting, investigation, contact tracing, sample collection and shipment	Number	Monthly	Training reports	Head, DDSR	0	367		
	Number of HCWs trained on 2019-nCoV detection, reporting, investigation, contact tracing,	Number	Monthly	Training reports	Head, DDSR	0	40		

	sample collection and shipment								
	Number of health workers sensitized on 2019-nCoV	Number	Monthly	Training reports	Head, DDSR	0	9200		
Enhanced early warning for 2019-nCoV at community level	Number of CHVs sensitized on community event-based surveillance	Number	Monthly	Training reports	Head, DDSR	0	5000		
All suspected cases promptly investigated	Number of RRT TOTs trained	Number	Monthly	Training reports	Head, DDSR	0	40		
	Number of County RRTs Trained	Number	Monthly	Training reports	Head, DDSR	0	50		
Prompt laboratory confirmation of 2019-nCoV	Proportion of samples shipped to NIC and referral labs within 24 hours	**Numerator**: Number of samples shipped to NIC and referral labs within 24 hours **Denominator:** No. of samples collected	Monthly	Training reports	Head, DDSR	0	100%	100%	100%
	Number of laboratory staff trained on sample collection, packaging and shipment	Number	Monthly	Training reports	Head, DDSR		120		
	Indicator	**Indicator Definition**	**Frequency**	**Source of Data**	**Responsible Person**	**Base line**	**Target Feb**	**Target Mar**	**Target Apr**

Result 3: Confirmed cases promptly isolated and treated as per the guidelines									
Enhanced county capacity to prevent transmission of 2019-nCoV in health facilities	Proportion of health facilities with infection prevention & control guidelines/protocols and standard operating procedures	**Numerator:** Number of health facilities with IPC guidelines/ protocols & SOPs **Denominator:** Total number of health facilities in high risk counties	Quarterly	Technical supervision reports	County Directors of Health	0	50%	100%	100%
	Proportion of health facilities with designated isolation areas for 2019-nCoV suspected cases	**Numerator:** Number of health facilities with designated isolated areas **Denominator:** Total number of health facilities in high risk counties	Quarterly		County Directors of Health	0	50%	100%	100%
	Number of trained and equipped 2019-nCoV ambulance teams	Number	Quarterly	Training reports	County Directors of Health	0	8	8	8
	Number of TOTs trained on 2019-nCoV case management and infection prevention & control	Number	Quarterly	Training reports	Head, DDSR	0	40		
	Number of clinical staff trained on 2019-nCoV case management	Number	Quarterly	Training reports	Head, DDSR	0	40	40	

	and infection prevention & control								
Enhanced county capacity to prevent transmission of 2019-nCoV in communities and schools in high risk counties	Proportion of schools with functional hand washing facilities as a means of preventing 2019-nCoV spread	**Numerator:** Number of schools with functional hand washing facilities **Denominator:** Total number of schools in 14 high risk counties	Quarterly	Technical supervision reports	Chair, County 2019-nCoV Coordinating Committee	TBD	50%	75%	100%
	Indicator	**Indicator Definition**	**Frequency**	**Source of Data**	**Responsible Person**	**Base line**	**Target Feb**	**Target Mar**	**Target Apr**
Result 4: Critical risk and event information communicated to policy makers, institutions, health workers and the general public									
2019-nCoV key messages designed	2019-nCoV risk communication plan in place	2019-nCoV risk communication plan	One off		Head, DDSR	0	1		
	Number of target audiences with 2019-nCoV key messages designed for them	Number	Quarterly		Head, DDSR		100%		
2019-nCoV key messages disseminated	Proportion of counties with 2019-nCoV IEC materials	**Numerator**: No. of counties with 2019-nCoV IEC materials **Denominator**: No. of counties	Quarterly	Technical supervision reports	Head, DDSR	0	100%	100%	

	Number of media outlets publishing accurate 2019-nCoV messages	Number	Quarterly		Head, DDSR				
	Indicator	**Indicator Definition**	**Frequency**	**Source of Data**	**Responsible Person**	**Base line**	**Target Feb**	**Target Mar**	**Target Apr**
Result 5: Efficient and Responsive National and subnational procurement & supply chains for 2019-nCoV prevention and control									
Strengthen national and subnational procurement & supply chains for EVD prevention and control	Availability of a costed national 2019-nCoV logistics plan		One off		Chair, National 2019-nCoV Taskforce	0	1		
	Proportion of high-risk counties with an updated inventory of 2019-nCoV logistics	**Numerator:** Number of high-risk counties with updated inventory of 2019-nCoV logistics **Denominator:** Total number of high-risk counties	Monthly		County Director of Health	0	1		

6.0 RESOURCE MOBILIZATION AND FINANCING

This contingency plan will be financed through a combination of public and private funds to ensure financial viability, sustainability, and equity in terms of access. The government will make available funding through the national contingency fund at Treasury, MOH and County levels. In addition, the MOH will at national and county government shall provide guidelines and SOPs for rapid disbursement of emergency/disaster funds

When an emergency or disaster is declared, Government will call upon the United Nations and bilateral development and humanitarian partners for their support. These include: UN OCHA, UNICEF, WHO, World Bank, DFID and others. International Non-Governmental Organizations, NGOs the civil society, state and non-state actors, the business community and individuals have a role to play in mobilization of resources. This plan also identifies human, material and financial resources required. An updated data bank of experts shall be kept with their current contacts information at PHEOC.

REFERENCE SECTION

LIST OF KEY OPERATIONAL GUIDELINES AND TOOLS

WHO protocols and guidelines

- Investigation protocol for 2019-novel coronavirus (2019-nCoV) infection").
- Interim guidance for laboratory diagnosis, advice on the use of masks during home care and in health care settings in the context of the novel coronavirus (2019-nCoV) outbreak, clinical management,
- Infection prevention and control in health care settings, home care for patients with suspected novel
- Coronavirus, risk communication and community engagement
- Global Surveillance for human infection with novel coronavirus (2019-nCoV).
- Commodity package that includes an essential list of biomedical equipment, medicines and supplies necessary to care for patients with 2019-nCoV.
- Updated advice for international traffic in relation to the outbreak of the novel coronavirus 2019-nCoV.

The following SOPs and tools are available at the EOC:

- Case management
- Contact tracing
- Sample collection, packaging and transportation
- Travelers surveillance form in English and Chinese
- Case investigation form
- Contact listing tool
- Contact follow up form