

Emerging Threats to Regional Public Health Posed by Zoonoses



Sara Ijaz¹, Sehrish Tariq², Raheel Khan¹, Maleeha Saleem³, Shama Jamil³, M Faizan Elahi Bhatti¹, Syed Balaj Hussain Rizvi¹, Maleeha Saleem⁴, Chanda Liaqat¹, Noor Fatima⁵ and Abdul Rehman¹

ABSTRACT

Zoonoses, diseases transmitted between animals and humans, present a growing menace to regional public health. The emergence of new zoonotic diseases poses significant challenges, as globalization, climate change, and increased human-animal interaction amplify the risks of spillover events. The intricate interplay between pathogens, animal hosts, and human populations creates a dynamic landscape of emerging threats that demand vigilant surveillance and proactive public health measures. The encroachment of human activities into natural habitats, coupled with the intensification of agriculture and wildlife trade, facilitates the transmission of zoonotic agents. Notable examples include the transmission of the H5N1 avian influenza virus from birds to humans and the spillover of the Ebola virus from wildlife to humans. These instances underscore the vulnerability of regions to novel and potentially devastating zoonotic outbreaks. Climate change further exacerbates the situation, influencing the distribution of vector-borne diseases and altering the habitats of reservoir hosts. This climate-driven shift contributes to the geographical expansion of diseases like Lyme disease and West Nile virus. challenging established public health infrastructures. Addressing the emerging threats of zoonoses necessitates a multidisciplinary approach. Robust surveillance systems, collaboration between human and animal health sectors, and international cooperation are imperative for timely detection, containment, and mitigation. Strengthening the resilience of regional public health systems to adapt to evolving zoonotic challenges is essential in safeguarding communities from the complex and interconnected web of emerging infectious diseases.

Keywords: Avian influenza, Ebola virus, Lyme disease, Public health, Zoonoses

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¹Department of Epidemiology and Public Health, University of Veterinary and Animal Sciences, Lahore, Pakistan

²Department of Clinical Medicine, University of Veterinary and Animal Sciences, Lahore, Pakistan ³Department of Veterinary Pathology, University of Veterinary and Animal Sciences, Lahore, Pakistan



⁴Department of Biochemistry, University of Agriculture, Faisalabad, Pakistan ⁵Department of Food Science and Human Nutrition, University of Veterinary and Animal Sciences, Lahore, Pakistan

*Corresponding author: <u>saraijaz0306@gmail.com</u>

1. INTRODUCTION

1.1. IMPORTANCE AND PURPOSE

Zoonotic diseases are those illnesses and diseases that are inadvertently transfer from vertebrate animals to humans. There are three categories: endemic zoonoses, which is widespread and affect both humans and animals, epidemic zoonoses, which has sporadic temporal and spatial distribution, and emerging and re-emerging zoonoses, which are either newly discovered in a population or were present in the past but are now spreading rapidly both geographically and in terms of incidence. Rift Valley fever, SARS, pandemic influenza H1N1 2009, Yellow fever, Avian Influenza (H5N1) and (H7N9), West Nile virus, and the Middle East respiratory syndrome coronavirus (MERS-CoV) are examples of the latter, as reported in recent months (Malik et al. 2013).

A tendency in these zoonotic illnesses is the regular unexpected occurrence and global distribution of novel ailments from animals, particularly viruses. Because of their propensity for epidemic spread, high case fatality rate, and lack of treatments or vaccinations (with the peculiarity of the yellow plague vaccine) to stop the transmission of most of these zoonotic diseases, the diseases are also a worry for world health. Emerging zoonoses in one country could perhaps pose a threat to the security of global health because of how interconnected the world is becoming. In the end, however, zoonoses is important not just because they are so widespread but also because it causes morbidity and mortality, a significant burden on health systems, and—most importantly—significant economic losses to the countries by loss in tourism, decreased animal trade, and human economic opportunities because of the loss of livestock (Markoff et al. 2013).

According to approximation, zoonoses generates roughly 1000 million cases of infections and 10 million of mortalities every year throughout the planet. Zoonotic diseases make up to 60% of recently reported infectious ailments in the whole world. Over 30 new human infections have been discovered in the past three decades, 75% of which have animal origins (Jones et al. 2008). In the WHO's Eastern Mediterranean Region, the threat posed by new zoonoses to public health is increasing. Emerging zoonotic diseases have been recorded from 18 of the region's 22 countries during the past 20 years, frequently with explosive outbreaks and significant deaths that have never been seen (Malik et al. 2013).

In any other WHO region, the up-to-date emergence of MERS-CoV is a template of how these infections can emerge at any interval because they come from animals, are frequently brought on by new viruses, and are only disclosed when epidemics occur. Because of its high population density, enhanced capacity of global business, counting cross-border bulk population and animals' movement within adjacent states, the WHO Eastern Mediterranean Area is still particularly vulnerable to zoonotic infections (Chinikar et al. 2012).

Globalization, travel abroad for business, tourism, or religious purposes, and varying levels of health systems' capacity to early detect epidemics have all been identified as significant risk factors for the emergence and rapid international spread of infectious diseases with zoonotic origin. This is because the region continues to be at the crossroads of repeated outbreaks of emerging infectious diseases. Animal-human interface countries' varying levels of surveillance and response capacity have often made these outbreaks adverse. Owing to their capacity for rapid global escalation because of enhanced marketing and international association, including



trans-boundary movement of livestock, these zoonotic infections are also a concern for the protection of the universal health system. The emergence of zoonoses also has an economic impact on travel, the trading of animals, and the loss of employment prospects for people owing to the loss of livestock (Hartzell et al. 2007).

Thus, zoonotic illnesses have the potential to have a catastrophic effect, with serious economic repercussions for the countries due to loss of trade, tourism, and consumer confidence. Just to use SARS as an illustration of how zoonosis can negatively affect a nation's economy, it cost the global economy more than USD 50 billion in medical costs and lost revenue due to the tourism industry's precipitous collapse. Another illustration is the fact that each household in Kenya lost an average of US\$500 during the RVF outbreak due to reduced productivity and the high expense of the disease's containment.

This chapter will focus on:

(i) Growing public health risks of imminent zoonotic diseases in the sector

(ii) Challenges in prevention of these diseases

(iii) Enhancing a strategic way for anticipating, diagnosing, and eliminating these diseases through a consolidated and associative access between the animal and human health sections.

2. CURRENT SITUATION ALL OVER THE REGION

In the WHO's Eastern Mediterranean Region, the precise magnitude of the zoonotic disease burden is unknown. Despite the fact that endemic zoonotic diseases like brucellosis, anthrax, and rabies have not been eradicated from the states, the zone endures to see both intermittent and epidemic outbreaks of emergent zoonotic infections. Recent outbreaks of West Nile fever in Tunisia (EpiSouth 2012), Chikungunya in Yemen (Malik et al. 2014), Yellow fever in Sudan (Markoff et al. 2013), and Q fever in Afghanistan (Aronson 2008), Irag (Leung-Shea et al. 2006) have all been reported in the region. Numerous arboviruses and filoviruses are found in the area. Despite the fact that seasonal outbreaks of Crimean-Congo hemorrhagic fever (CCHF) occasionally occur in Pakistan (Mofleh et al. 2013), Afghanistan (Mofleh et al. 2012), Iran (Chinikar et al. 2012), and hospital-acquired plagues of the illness have been documented in the region in recent years in Iraq (Athar MN et al. 2002), the United Arab Emirates and Sudan (Onyango et al. 2007). The persistent risk of viral hemorrhagic fevers exists in the area. The only viral hemorrhagic fever in the area that is caused by a filovirus was the Ebola Hemorrhagic Fever in Sudan in 2004 (Onyango et al. 2004). The quick geographic spread of Rift Valley fever, native to sub-Saharan Africa, to Yemen WHO (2000), Saudi Arabia (Madani et al. 2003) and Sudan is a typical illustration of developing zoonoses in the area.

Human-being ailments have been documented in Djibouti, Iraq, Pakistan, and Egypt as the extremely virulent avian influenza broaden quickly through the Eastern Mediterranean Region in 2006. Numerous countries disclosed experiencing huge epizootics. With a modest level of transmission all year long, the avian influenza is currently thought to be well-established in Egypt. All of the nations in the region were impacted by the influenza A (H1N1) of swine origin in 2009. The region has also seen the emergence of other zoonotic illnesses that are uncommon but nonetheless have substantial morbidity rates. These comprise Plague (Cabanel et al. 2013), Sandfly fever, and monkey pox (Formenty et al. 2010) The Alkhurma virus serves as an example of how recently developing diseases of zoonotic origin also reside in this area. A mankind disease with a novel coronavirus (MERS-Cove) appeared in the area in 2012 (Malik M et al. 2012) which quickly brought attention to this new virus on a worldwide scale. This incident served as a reminder to the zone that appearing zoonosis can happen anywhere at any time and that no state is unsusceptible to the hazards of these illnesses. MERS-Cove has so far afflicted the following



nations in the region: Egypt, Iran, Jordan, Kuwait, Lebanon, Oman, Qatar, Tunisia, United Arab Emirates, and Yemen.

These illnesses pose a threat to every nation in the area, and cross-border outbreaks are common. However, the countries in the zone are probably most at risk because they are regularly troubled by difficult emergency situations and are often noted for failing to address the appearance of new diseases or the re-occurrence of old infections properly (Onyango et al. 2004).

Ineffective zoonoses control programs, a lack of agreement on the roles and responsibilities of each region, and the less importance given to zoonotic infections are all cited as major contributing agents to the region's high burden of zoonotic infections and their frequent emergence, frequently with explosive outbreaks. A number of disease-amplifying factors, like as population shifts, disjointed healthcare systems, inadequate laboratory diagnostic capabilities, and interruption of normal epidemiological assistances in calamity-affected nations, have also greatly impacted the rise of new zoonotic ailments in the sector.

3. IMPORTANCE OF ZOONOTIC DISEASES

A tendency in these zoonotic illnesses is the extended unexpected disclosure and worldwide circulation of unusual diseases from animals, particularly viruses. As a result of their high mortality cases, propensity for scourge spread, and scarcity of approachable therapies and vaccines for the most of these zoonotic infections, the illnesses are also a worry for world health (excluding yellow fever vaccine). Imminent zoonoses in any region could perhaps put the reliability of universal health at risk because of how interconnected the world is becoming. In the end, however, zoonoses is important because it is so widespread as well as it causes ailments and death, excess baggage on healthcare organizations, and remarkable financial damage to the society through lost opportunities for travel and animal trade and for the people through the loss of livestock (Mofleh et al. 2013).

Because of low trade, exploration, and consumer trust, zoonotic illnesses can have a disastrous effect and have serious economic repercussions for the countries. Just as an illustration of how zoonosis can negatively affect a nation's economy, the 2003 appearance of SARS put a value on worldwide financial system over US 50 thousand million dollar in cost of health care and income losses due to the unexpected shutdown of the tourism industry. Another illustration is the loss of US\$500 per household during the RVF outbreak in Kenya because of decreased production and the high expense of the disease's containment (Cabanel et al. 2013).

4. CHALLENGES IN MANAGING ZOONOTIC INFECTIONS

The unrivalled fluctuation of humans, livestock, and objects beyond intercontinental borders arise owe to globalization has contributed to the zoonotic infection pandemic. Many zoonotic diseases are cross-border illnesses; they pass over frontiers from their point of dawning and have a severe economic influence on dealings, bargaining, globetrotting, and confidence belt.

Most zoonotic infection outbreaks have been documented in distant locations, which makes it difficult or impossible in some cases to reach these populations with public health services. Owing to challenges in expanding squads for field inquiry, absence of pertinent and secure specimen lading mechanisms, insufficiency of requisite laboratory distinctive apparatus on the spot or intrastate, and inadequate dimensions of the countries to plan, disperse, and enforce suitable precautions in such environment as well as to detect the progression of protective measures in geologically disseminated areas, the disclosure and diagnosis of the ailment have been significantly delayed. Therefore, there is a need to invest in bolstering territory-wide upsurge



scrutiny and feedback capabilities in the states that are habitually afflicted by the infections to detect these disease threats (Formenty et al. 2010).

Countless vigorous germs that are producing new zoonotic ailments in human being were first found in animals (particularly wildlife) or in items made from animals. Understanding these infections' extra-human reservoirs is still crucial for comprehending the public health and prospective preventative actions for these zoonotic infections.

Additionally, there is insufficient translucency when it comes to promptly informing WHO or any other international organization tasked with investigating and taking appropriate action to ensure the security of global health. Medical authorities in these nations frequently contest the presence of cases in humans, composing it challenging for the organizations that comprehend the health surveillance, course of the sickness, and the best ways to control it in various contexts.

Lack of effective cooperation linking the livestock and human being wellness programs underneath the "One Health" approach, which combines the humans and the animal medical management sectors and merges the livestock and humans' disease surveillance or response system, is the main obstacle in controlling zoonotic diseases in livestock, permitting preliminary eruption exposure, and averting deadland transmission (Mofleh et al. 2013).

Infirm monitoring and coverage organizations and inadequate laboratory function fin diagnosing newly developing zoonotic diseases like SARS, Ebola, Marburg, and novel influenza strains are among the additional difficulties associated with preventing and controlling zoonotic diseases in Member States. Most nations have a low capacity for local response because of a lack of awareness, inadequate resources, and poor quality and quantity of human resources. Among the major industries, there are not many formal mechanisms for collaboration. Because of the difficulty in gathering reliable information from the ground up and the poor coordination between the Ministries of Health and Agriculture, it is laborious to collect exact and up-to-date facts and descriptions on zoonotic infections (Veterinary Services). Additionally, the Region lacks effective zoonotic disease health education and community participation. Additionally, there is little harmonization across the many regulatory frameworks for public health. There is little to no research on recently discovered diseases. In conclusion, the primary difficulties are:

4.1. ORGANIZATIONAL

(i) Insufficient knowledge of the burden, trend, and hazards of zoonotic illnesses.

(ii) Low degree of strategy and opinion-formers' awareness of the dangerous characters of the infection.

(iii) A lack of competent labor and resources for zoonotic disease control.

(iv) Insufficiency of clarity of the states to account for the appearance or incident of zoonotic infection due to fright of consequences.

(v) Fragility or astray of alliance and participation, joining the agriculture, community health, veterinary, and wildlife zones.

(vi) Disappointing cooperation and association to tackle measures to sustain the forestalling and standard programmed of zoonosis.

(vii) Presence of other competing health priorities frequently taking precedence.

(viii) The absence of communication between the departments of surveillance, clinical services, and laboratory services within the healthcare industry.

(ix) The deterioration of health infrastructure, particularly in nations with complicated problems.

4.2. DIAGNOSIS AND DETECTION



Absence of integration between the human and veterinary sections prevents the sharing of observational and lab inspection records from public health sectors. Infirm infection monitoring systems as well as insufficient identifying capabilities make it difficult to find zoonotic infections.

(i) Challenges in doing field research in remote locations, where the majority of developing zoonotic outbreaks take place.

(ii) The countries' weak cross-border cooperation, surveillance, and information sharing. (iii) Insufficient participation of the community in the zoonosis management programmed.

4.3. CONTROL AND INTERRUPTION OF TRANSMISSION

(i) Nations' inability to design, organize, and carry out effective preventive techniques.

(ii) An inflated likelihood that some recently discovered zoonoses would spread by nosocomial sources in healthcare settings.

(iii) Inadequate implementation of stringent hurdle fostering and necessary disease prevention methods in healthcare facilities.

(iv) Inadequate or inappropriate vector control efforts.

(v) Lack of knowledge of high-risk behaviors, such as cultural and social elements that are linked to the risk of spreading new zoonoses in the community.

(vi) Inadequate or missing evidence supporting some epidemiological control interventions.

5. CURRENT STRATEGIES FOR CONTROL OF ZOONOTIC INFECTIONS

There is little consistency between the sectors of animal and human health in the existing approaches to zoonotic disease prevention and control. Additionally, there are no plans in place globally for the inhibition and management of newly approaching zoonotic ailments. No concentrated attempts have been made in the area to design some scheme for handling and prevention of zoonotic infections and related community well-being hazards because of a lack of resources and a suitable policy response (Hassan et al. 2011). The Regional Office's efforts to promote zoonotic disease control remain marginal despite the threats that new zoonotic pathogens pose to public health. Although efforts to control zoonotic infections are far from sufficient, two Provincial Cabinet decisions.

(i) EM/RC54/R.4 Viable challenges of viral hemorrhagic fevers in the Eastern Mediterranean Region: an appeal for operation.

(ii) EM/RC58/R.4 (D) Dengue: Command for critical interruptions for a quickly broaden imminent infection—have embellished on the issue.

Specified the size and scope of the issue and the changing community fitness concerns linked to zoonotic ailments, it may be count for a standard transfer and modifications to the course of action, WHO wishes to approach the impending hazard to the well-being of the world and its regions.

6. VITAL INDICATIONS FOR PREVENTION OF ZOONOTIC DISEASES

Extremely suitable control for the Zonal Office would be to create a planned structure for control and elimination of zoonotic infections in the area with a perspective of diminishing the well-being, social, and commercial effects of zoonosis in the nations of the land. This is because zoonotic diseases are becoming increasingly important in the region. The following strategic methods will be among the most crucial and significant technical aspects that will need to be considered:

6.1. CREATING PRODUCTIVE PARTNERSHIPS BETWEEN THE DOMAINS OF LIVESTOCK AND HUMAN-BEING HEALTH



Since it is challenging to foresee wherever the next zoonotic illness would appear, it is crucial that veterinarian and public health professionals work closely together. This cross-sectoral partnership aims to improve communication between people and between organizations (Hassan et al. 2011). This practice of actively promoting collaboration between the two sectors through routine scientific information exchange can be led by an inter-agency taskforce. With a planned skeleton of alliances and reconciliation for the one health idea, the labor strength can also direct cooperative discipline research and participate in organizational assets. Effective preventative and anti-dumping measures at the human-animal interaction would be enhanced by doing this.

6.2. INCREASING SURVEILLANCE TO RECOGNIZE INFECTIOUS HAZARDS EARLIER IN HUMAN-BEING

Investigation at the first sign of an emerging ailment in livestock that can cross genus barriers is especially vital to early identify any infection hazards from zoonosis because the majority of imminent infections have causative agents in animals or in invertebrates, and the presence of such ailments in individuals can frequently not be accurately anticipated. Prompt collection and investigation of animal infection data that can intersect breed hurdles, the incorporation of infection monitoring systems across the humans and livestock fitness sections is essential. Syndromic surveillance systems may also be useful for real-time threat detection and can speed up necessary mitigation and preventative activities.

6.3. INCREASING THE LABORATORY'S ABILITY TO DETECT NEW PATHOGENS

When one can find a standard and collaborative delivery etiquettes for exchanging research monitoring facts and figures between the sectors of humans and livestock health instantaneously, diagnostic facilities would be more effective in the initial detection of any zoonotic infection. Furthermore, a technique for sharing research exploring information beyond the preventive medicine business is mandatory, especially among the clinical assistances and infection monitoring sections. The establishment of lab web chains both inside and outward of the countries will speed up the transfer and shipment of specimen for instant recognition of capable zoonosis hazards.

6.4. INCREASING INFECTION PREVENTION AND CASE MANAGEMENT

Prior to the introduction of a disease, an infection prevention and control programmed should be put in place, with the usual precautions serving as a crucial component, to guarantee that healthcare institutions are ready to manage risks from zoonotic illnesses. Regardless of their suspected or confirmed infectious state, all patients should get the same care and treatment. Standard precautions, if consistently followed, would help stop most of the transmission by contact with blood and bodily fluids before any zoonotic diseases of unknown origin are identified (Onyango et al. 2004). The practice of an analytic resolution blueprint for critically inflamed ailment with a susceptible case interpretation may be beneficial for untimely diagnosis of any suspicious specimen owing to the scientific demonstration of many of the appearing zoonotic infections are frequently difficult to discriminate, leading to confusion and misidentified by healthcare specialist. By using such step-by-step diagram, one can help direct prompt treatment possibilities and set off compact actions for additional diagnostic testing and investigation. The accomplishment of this scientific computational system requires coaching of health-maintenance workers in disease prevention and case control operations, as well as pre-position of tactical necessities.

6.5. INCLUDING MANAGEMENT OF VECTOR PROHIBITION



For all the viruses that belong to phylum-Arthropoda, an integrated vector control management (IVM) scheme ought to be taken into consideration as the same technique of resource escalation for coherent vector management. The IVM strategy prescribes the utilization of various interventions, either solely or reciprocally that are selected established on indigenous education about the vectors, diseases, and infection determinants. On the basis of corroboration and consolidated handling of mosquito immediate hosts, inclusive of rodents. IVM might be the most productive technique for management of rodents and carriers that participate in the escalation of specified viruses that cause hemorrhagic fever (Formenty et al. 2010). To determine the spatial and temporal diffusion of the carrier species, countries must first map the vectors in detail, including their breeding grounds. Intending preventive efforts for multiplying sites during the periods between the epidemics may benefit from this information. The aim of carrier control methods should be to lessen mature mosquito inhabitants' probable reproducing areas or their interconnections with people beyond levels that would support an outbreak. Establishing a spotter location for parasite monitoring in sites with high carrier aggregation, unified it with health surveillance and viral scrutiny systems, and reporting on atypical clumps of critical delirious ailment, a sudden increase in carrier density, or an unanticipated segregation of a unique zoonotic germs can all help to gather useful information. Such details can aid in understanding the predicted, current, or changing risk.

6.6. REDUCING TRANSMISSION THROUGH BEHAVIORAL AND SOCIAL CHANGES

For most emerging zoonoses, especially those involving median mammal hosts, the efficacy or negligence of faltering the transference chain will rely on the significance of the behavioral response of the exposed public. The commune's risk approach and how this correlate with real or intentional attitude, social, lunatic and reasonable components that distinguish the manifested population's nature, and intellectual features that effect the protecting elements and acceptability of cohesion to such defensive behavior will ought to be taken into consideration when designing appropriate social and behavioral interventions for threats from specific diseases.

6.7. BUILDING EMERGENCY RESPONSE AND PREPAREDNESS CAPABILITIES FOR NEW ZOONOSES

The chief strategy should begin with the formation of a governmental scheme with involvement from entire momentous collaborators. The scheme should consider utilize earth science data organizations and other statistics techniques to design an absolute danger evaluation and plan the geological dissemination of zoonotic infections that are exist in the countries (Malik et al. 2012). Areas that are vulnerable to the spread of zoonoses should also be identified. To assure that main facts and figures on hazards is routinely disclosed between the companions through a well-compatible structure, human-being, livestock, and carrier scrutiny ought to be strengthened and, if possible, integrated with details and dividend. Pre-allocation of strategic necessities (investigation kits, personal protective equipment, etc.), modelling of admissible standard and calibers to evaluate the achievement of retaliation movements, and public guidance operations pointed at diminishing danger revelation should all be comprised in the plan. The basics to a prosperous infestation preparedness and counter scheme ought to be the installation of a multi-disciplinary integrating team to encourage collaboration and incorporation between all associates and to escort, conduct, and contribute compulsion reaction procedures during an epidemic.



Finally, to track the strategy framework's execution throughout time, it will be necessary to provide the right monitoring and evaluation instruments and indicators (Aradaib et al. 2011). The following factors must be considered by the countries when creating their own programmed for the control and management of imminent zoonotic infections:

6.8. STRENGTHENING CIVIL DEDICATION, STATE DESIGNING, AND CORRELATION TECHNIQUES

It would be necessary to develop policies for fostering efficacious cross-regional cooperation connecting the humans and livestock health sections through improved sectoral coordination, joint planning, and increased sectoral communication.

6.9. STRENGTHENING PREPAREDNESS, SURVEILLANCE, AND REACTION

This includes cooperative surveillance operations at the animal-human interface, enhancing laboratory diagnostic capabilities, and developing multi-sectoral preparedness and response strategies for controlling zoonotic illnesses. Designing schemes for governmental dimensions building for zoonotic disease preventive and eradication programs, including creating a firm research base for novel methods for prevention of zoonosis in the nation.

6.10. ENCOURAGING RESEARCH

6.10.1. IMPROVING REGIONAL AND GLOBAL COOPERATION AND COLLABORATION

Reducing the dangers of zoonotic diseases to the public's health will necessitate a commitment and intensive cooperation and collaboration from all parties in pursuit of a shared vision, objective, and purpose. This must be considered in the suggested strategy framework.

6.11. HEALTH ADVOCACY, HAZARD REPORTING, AND COMMUNAL FULL-TIME TRAINING

Regulations on the efficient utilization of risk conveying and society involvement in addressing the epidemiological hazard associated with the initiation of zoonotic infections would require to be implemented in the countries (Onyango et al. 2004).

7. CONCLUSION AND FUTURE APPROACHES

Following the discovery of MERS-CoV, the area is now becoming a growing priority for global health. The impact of numerous newly developing zoonotic infections has been felt in the area. Our modern time has demonstrated us that dynamic zoonotic infections are unpredictable and unplanned phenomenon. Another lesson is that certain disease outbreaks that happens currently allover in the world could create problems for the whole globe tomorrow. The resilience and responsiveness of the governmental well-being authorities to react quickly will pursue to be assessed by these impending diseases. Global health security will also be put to the test by how well regional and global communities can work together to fight these diseases that cut across national borders.

A lot more zonal correlation would be needed to protect the public's fitness from all sorts of zoonotic illnesses, even while worldwide efforts should continue to adjacent the knowledge intervals associated to the inception and transmission of many zoonotic infections, nearly all are distinctive in origin. Constituting a viable epidemiological programmed for the identification,



prohibition, and elimination of new zoonotic ailments in the state is imperative given the current circumstances in the area regarding the global and national response to MERS-CoV.

The "One Health" approach, that demands a common correlation procedure, mutual designing, collective administration, communal involvement, amplitude establishment, and joint monitoring and assessment framework joining the humans and livestock health divisions, should present as the premise for any strategic framework for the control of zoonosis. The "one Health" strategy also call attention to 5 crucial areas where it is most apparently to have an impression. These include:

- (i) Pooling health resources between the veterinary and medical fields
- (ii) Preventing the spread of zoonotic diseases among animal reservoirs

(iii) Identifying emerging diseases early and responding to them

(iv) Preventing epidemics and pandemics

(v) Developing new knowledge and enhancing health research and development (Cabanel et al. 2013)

To reinforce their abilities to turn down the community well-being concern completely and lucrative influence obtrude on their people and animals by zoonosis, the Member States will also be required by the strategy to inaugurate and integrate scales that incorporate technical, social, political, strategically, and administrative controversies. The best course of action for the prevention and control of newly developing and re-occurring zoonotic ailments in the WHO Eastern Mediterranean Region is the execution of a workable strategy. The strategic directions outlined in this paper are invited for consideration and adoption by the Regional Committee. As stated in the International Health Regulations (2005), effective control of emerging zoonoses will provide a chance to lessen the global well-being risks linked with zoonotic illnesses and molding the globe into less vulnerable to recently spreading and reappearing pathogens.

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