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**ABSTRACT**

Globally, zoonotic diseases are an emerging threat and the Pakistani government is conducting public education campaigns to raise awareness of zoonotic diseases and how to prevent them. One Health approach is a synergistic attempt between public, animal and environmental health professionals to prevent, detect, and control infectious diseases. The Pakistani government is formulating a One Health Strategic Plan to preclude, observe, and respond to infectious disease eruptions in Pakistan. This plan will include a focus on zoonotic diseases. The government has developed National One Health Strategic Framework to address zoonotic diseases comprehensively. For disease surveillance AI tools should be introduced for plans such as the “One Health” system tracing and analysis with resourcing toolkit. Food-borne infections are caused by various pathogens that are fatal from a safety point of view like *Listeria* spp., *Campylobacter* spp., *Salmonella* spp., *Toxoplasma gondii*, and Norovirus are prevalent in Pakistan. Safe meat for the end consumer demands that standard parameters are implemented from crop production to animal rearing handling slaughtering, designing, and storage. Close affiliation and climax of humans and their pets and livestock is directly related to the transmission of zoonotic pathogens. In Pakistan, food is usually sold in the streets by vendors under unhygienic conditions. Additionally, hygiene maintenance, food safety and handling awareness in the natives is poor. Awareness campaigns have been launched to educate the public about zoonotic diseases, their transmission routes, and preventive measures. The ZDCP is a collaborative initiative between the Ministry of National Health Services and the Food and Agriculture Organization (FAO) of the United Nations for coordination and regulations. Pakistan has a significantly legal model to endorse and implement the technical sector objectives of the IHR and the Global Health Security Agenda at the country level. Strategic planning is crucial to ensure cost-effective quality maintained and safe services for health managers. The government is taking the best initiatives to control zoonotic disease in the zone. However, some new policies are under their way.

**Keywords:** Zoonoses, One Health, Zoonoses Policies, Food Safety, Policies in Pakistan.

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### 1. INTRODUCTION

Globally, zoonotic diseases are an emerging threat to the economy and sustainability of human life. Every year, millions of people lose their lives because of zoonotic disease (Belay et al. 2017). Pakistan is facing severe issues on this. Various policies should be taken to avoid disease transmission in humans. The One Health approach is a synergistic attempt between public, animal and environmental health professionals to prevent, detect, and control infectious diseases that can spread between living beings. This approach is essential for controlling zoonotic diseases in Pakistan, as it allows for a comprehensive and coordinated response to these diseases. One of the most efficient ways to prevent zoonotic diseases is vaccination. The Pakistani government has a number of vaccination programs in place for livestock, including programs for rabies, brucellosis, and anthrax. These programs have been successful in reducing the incidence of these diseases in livestock, which has helped to reduce the risk of transmission to humans. Improved sanitation is another essential way to prevent zoonotic disease transmission (Yasmeen et al. 2022). This includes improving hygiene practices in livestock production and handling, as well as improving sanitation in food markets and other areas where people and animals come into close contact. Public education is also important for preventing zoonotic disease transmission. This includes educating people about the risks of zoonotic diseases, how to avoid them, and what to do if they think they have been exposed to a zoonotic disease. The Pakistani government has established a single-domain health hub at the Pakistan National Institute of Health (NIH). This hub will endorse a synergistic and coordinated approach between all living beings and their surroundings on infectious zoonotic diseases. The Pakistani government is implementing vaccination programs for livestock to prevent the spread of zoonotic diseases. The Pakistani government is formulating a One Health Strategic Plan to preclude, observe and respond to infectious disease eruptions in Pakistan. This plan will include a focus on zoonotic diseases. The Pakistani government is working to improve sanitation in livestock production and handling, as well as in food markets and other areas where people and animals come into close contact. The Pakistani government is conducting public education campaigns to raise awareness of zoonotic diseases and how to prevent them. The Government of Pakistan has adopted the One Health notion to look at zoonotic diseases comprehensively. The National One Health Strategic Framework aims to integrate public, animal, and environmental health sectors to prevent, observe, and respond to zoonotic disease outbreaks. The ZDCP is a collaborative initiative between the Ministry of National Health Services, Regulations, and Coordination and the Food and Agriculture Organization (FAO) of the United Nations. It focuses on strengthening surveillance, diagnosis, and control of priority zoonotic diseases such as rabies, brucellosis, and avian influenza. Efforts have been made to enhance disease surveillance systems across the country. This includes strengthening veterinary and public health laboratories, developing early warning systems for disease outbreaks, and improving reporting mechanisms to ensure timely detection and response to zoonotic diseases (Khan and Jaspal 2017). Vaccination campaigns have been conducted to control specific zoonotic diseases. For example, to prevent rabies transmission, the government has initiated mass dog vaccination programs in high-risk areas and promoted public

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awareness about responsible pet ownership and the importance of rabies vaccination. The government has worked on enhancing veterinary services, including training and capacity building for veterinarians, promoting biosecurity measures in livestock farms and markets, and improving animal health management practices. These measures aim to cut down zoonotic disease transmission from animals to mankind. Awareness campaigns have been launched to educate the public about zoonotic diseases, their transmission routes, and preventive measures. These campaigns include public service messages, educational materials, and workshops targeting both urban and rural populations. Protecting and conserving natural ecosystems and wildlife habitats are crucial for preventing zoonotic disease outbreaks. The government has taken steps to strengthen environmental conservation efforts, including the establishment of protected areas and regulations to control illegal wildlife trade. Pakistan actively participates in international collaborations and partnerships to address zoonotic diseases. This includes working with organizations like the World Health Organization (WHO), FAO, and the World Organization for Animal Health (OIE) to share knowledge, resources, and best practices in disease control and prevention (Khalil et al. 2017).

An important task that is performed by the state system and especially by the health care system to control zoonoses is strategic planning. It is predetermined, logical and compact, allowing public health associations to concentrate on a point and sustainability of the future. It improves the management's consciousness of foreign threats, forces and organization. Strategic planning is therefore a crucial task that should be done before making policy against any zoonotic disease. It consists of various steps that should be carried out. Haphazard arrangements are often catastrophic. Long-term planning should be done to rule out zoonoses completely.

### 2. ONE HEALTH STRATEGY

One Health is an integrated, multidimensional, and transdisciplinary path putting their efforts from regional to global level with a vision to obtain optimal health consequences by realizing the linked connection between mankind, animals, plants, and their conjugated environment. Zoonotic diseases are infectious diseases that are transmitted from land-living domestic animals to humanity and are a root cause of rising infectious diseases. Nearly >60% of the pathogens that infect humans are zoonotic in nature. Zoonosis is dominant in Ethiopia, Nigeria, Tanzania, and India. (Jones et al. 2008).

Various environmental factors are deeply involved in disease progression. Neglecting ecological factor leads to a significant impact on biological risks. Regarding ecological factors, a global climatic change may result in increased dominancy of common disease vectors, i.e., ticks and mosquitoes, together with a surge in climax already inhabited, in the number of disease vectors. Wild and game animals are currently presenting an elevated risk of transmission of non-domestic animal diseases to domestic animals and to agricultural settlements. Therefore, agricultural workers are more prone to this risk. These infections have a strong relation with climatic change associated zoonosis like the tick-borne encephalitis virus (TBEV) group of *encephalitis*, *Lyme borreliosis* and *Coxiella burnetii*, the agent of Q fever, infections and anaplasmoses (Lindgren and Gustafson 2001).

Studies enlighten close and reciprocal actions of fruit-eating bats with humankind. These bats are a source of zoonotic pathogens and are carriers of lethal diseases including rabies in the Indian subcontinent (Ahmed et al. 2023).

Previously in Pakistan, there has been no research carried out to determine the role of fruit-eating bats in spreading rabies virus known as lyssavirus. On survey-based results bat should not be given less importance in zoonoses strategy making and should not be overlooked in any national rabies surveillance planning or committee. Keeping in view that associated animals as a main predator of alive and dead bats, will provide valuable information for looking into the rabies cycle and it will result

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as fruitful in saving life of mankind and animals. Mountains and plains residential background as compared to provincial (Punjab and KPK) are markedly associated with the rate of bat-human interaction. (Ahmed et al. 2023).

The One Health approach is a synergistic attempt between public, animal and environmental health professionals to prevent, detect, and control infectious diseases that can spread between living beings. This approach is essential for controlling zoonotic diseases in Pakistan, as it allows for a comprehensive and coordinated response to these diseases.

### 3. DEVELOPING A ONE-HEALTH STRATEGIC PLAN

The Pakistani government is formulating a One Health Strategic Plan to preclude, observe, and respond to infectious disease eruptions in Pakistan. This plan will include a focus on zoonotic diseases. Environmental change has disturbed one health concept. Population increase has resulted in huge atmospheric carbon emissions and has risen global warming that has interrupted normal lifestyles and biome. Urban socialization has hastened the coordinated interaction of humans with animals such as pigs, squirrels, foxes, mice and jackals. These are probative conditions for the expression and out-growth of zoonotic diseases (Sleeman et al. 2019).

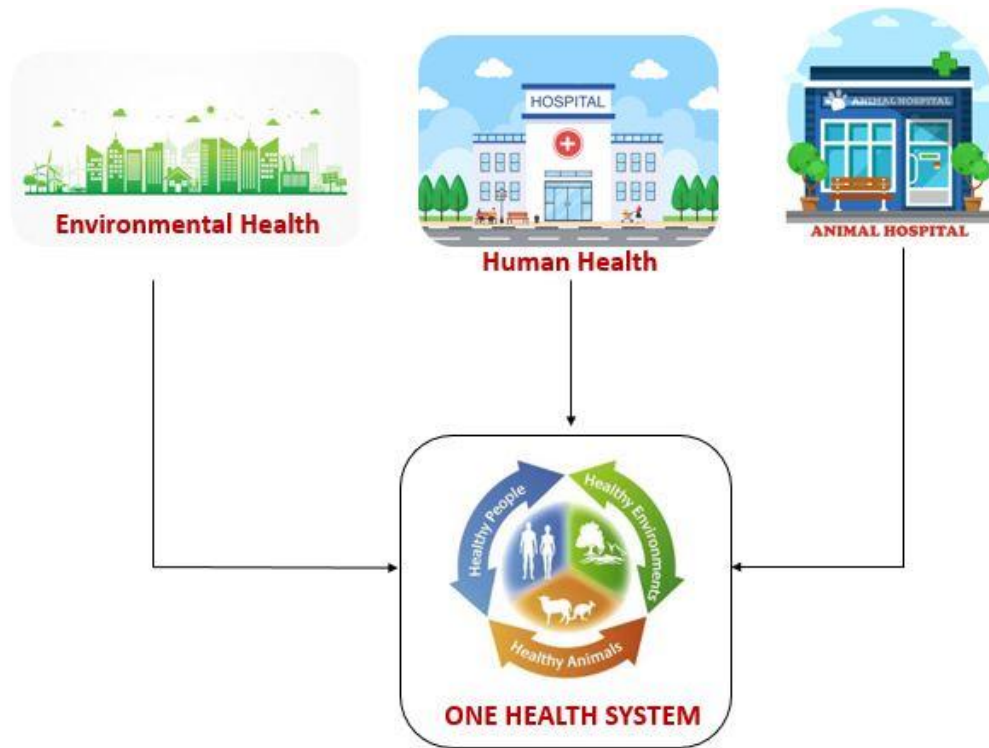
Cutting down of forests and the loss of ecosystem diverseness, intensity of temperature, melting of glaciers due to global warming, air pollution from burning of crop remnants and coal combustion, over-population, declined eatables production and high humidity and temperature index due to urbanization resulted in havoc on the ecosystem. These circumstances lead to favorable conditions for survival and the explosion of the zoonotic pathogen (El-Sayed and Kamel 2020; Majeed and Munir 2020).

In Pakistan, the primary source of contamination and disease spreading in the surrounding is poor management of infectious waste at a large scale. There should be categorical waste separation on base of hazardous chemicals disposable items pulps leather in hospitals and industries. These waste products act as the primary source of acute respiratory pathogens, hepatitis A and E and intestinal pathogens. (Rab et al. 1997; Qasim et al. 2014). Factory, domestic animal farms, hospitals and household disposal waste can combine with natural disasters such as tornados, and tsunami to pollute drinking water supplies (Daud et al. 2017).

The government of Pakistan has developed National One Health Strategic Framework to address zoonotic diseases comprehensively. The National One Health Strategic Framework aims to integrate public health, animal health, and environmental health sectors to prevent, observe, and show a quick response to zoonotic disease outbreaks (Fig. 1).

### 4. SURVEILLANCE OF DISEASE OUTBREAKS

Improved Disease surveillance and reporting is significant. Efforts have been made to enhance disease surveillance systems across the country. This includes strengthening veterinary and public health laboratories, developing early warning systems for disease outbreaks, and improving reporting mechanisms to ensure timely detection and response to zoonotic diseases. Epidemiological surveillance is crucial to estimating linked risk factor that is majorly accountable for the perseverance and explosion of disease. Public health management regulations is responsible for this surveillance. Usually, we consider hospital-based surveillance data and it shows a high prevalence of numerous zoonotic diseases. Clinicians, epidemiologists, and specialists in veterinary medicine, and public and environmental health could be brought together on a single platform to regulate policies that turn to disease perseverance. Formulating basic awareness seminars and vaccination programs for the guidance of the population or community is need of hour. AI tools should be introduced for plans such as the “One Health” system tracing and analysis with resourcing toolkit. (Breslin et al. 2017; Brown and Nading 2019; Iqbal et al. 2020a).



**Fig. 1:** Public, Animal and Environmental Health under umbrella of One Health System

## 5. FOOD SAFETY AND ANIMAL HEALTH

Food-borne infections are caused by various pathogens that are fatal from a safety point of view like *Listeria* spp., *Campylobacter* spp., *Salmonella* spp., *Toxoplasma gondii*, and Norovirus are prevalent in Pakistan (Nisar et al. 2018).

Pakistan is one of the highest producers of protein sources like milk and halal meat in the world and the quality of these products is often up to the mark. Therefore, negligence and ignoring biosecurity measures during animal handling, milking, slaughtering, and processing results in diseases such as brucellosis and bovine TB initiating their progression at the farm level (Claeys et al. 2013).

Pasteurization is the most successful and convenient method for increasing milk storage life and for implementing standard milk production. Antibiotic residues as well as pathogens and other contaminants in milk can be easily screened using Raman spectroscopic techniques. Nowadays various antibiotic milk testing kits like Twin-Sensor, and Bio-easy are available for quick results. Dairy companies like Nestle Engro etc. mostly use these mainly. Raw milk or untreated milk contains infectious pathogen, while pasteurization extends the shelf life of the milk. Therefore, the latest and hygienic milk production and processing techniques must be enforced on a small-town basis to control milk-related zoonoses (He et al. 2019).

## 6. MEAT IS A LEADING SOURCE

A vital source of protein that is consumed all over the world is meat. Inappropriate meat processing results in the spread of food-borne illnesses such as Bovine Spongiform Encephalopathy (BSE), hepatitis, and typhoid has been linked (Ozawa 2003; Javed 2016), and sanitation cleanliness and hygiene standard operating procedure for farm and abattoir sanitation plays a vital role for quality and healthy meat production. Environmental and public health practitioners have an essential role in meat safety and

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ensuring a hygienic environment. Meat and food inspections are also necessary for exporting labeled meat, and it's easy to enforce screening technologies like ELISA, and PCR for meat screening (Iqbal et al. 2020b). All these cautions and safety procedures also pave a way to organic food production (Akbar et al. 2019) Safe meat for the end consumer demands that standard parameters are implemented from crop production to animal rearing handling slaughtering, designing, and storage. (Ishaq et al. 2021) Salmonella species in raw chicken are of prime importance in Pakistan with a prevalence of 22-30%. Recent research showed that 25.5% contamination of Salmonella in fresh and 21.8% in processed chicken meat. (Dufrenne et al. 2001).

Salmonella was isolated 89% of various fresh chickens and 68% of frozen chicken products, in the Netherlands, Dallal et al. (2009) investigated 62.7% in Tehran, Zhu et al. (2014) detected Salmonella 28.3% from fresh and 33.5% from stored poultry.

Previously various studies in different cities of Pakistan have reported 30% Salmonella prevalence in poultry in Faisalabad (Akhtar et al. 2010), 69.70% in Kashmir (Mir et al. 2010) and it has been seen that there is a 38% contamination rate in poultry meat in local markets of Sindh province (Soomro et al. 2010).

### 7. OVER-CROWDING

Close affiliation and climax of humans and their pets and livestock is directly related to the transmission of zoonotic pathogens (Suk et al. 2014), and places where animals and humans share common living areas in most villages are at high risk (Owczarczak-Garstecka 2018) and those with inadequate sanitation facilities (Warraich et al. 2011). Congested housing and overcrowding of people affect a pathogen's capability to infect immune-compromised hosts (Hammer et al. 2018). Improvement in hygiene and cleanliness and enforcement policies like preventing overcrowding physical distance and maintaining hygiene and sanitation in local food markets will reduce the risk of zoonotic disease transmission.

### 8. HYGIENE PRACTICES IN FOOD RESERVOIR AND WATER SAFETY

Food-borne zoonoses are typically caused by contaminated food reservoir and water consumption leads to food borne zoonoses because hundreds of zoonotic microbes reside in the intestinal tract of halal meat source animals and pose a contamination hazard from animal rearing at the farm to meat cooking in your kitchen. Food is a basic necessity for living that's why food safety is a top concern for global public health (Gizaw 2019) and hyper-active strategies should be advised to overcome and reduce the spread of these diseases as well. (Ishaq et al. 2021). Raw food and food products handling and storage play a crucial role in overcoming the spread of food-borne diseases. In Pakistan, food is usually sold in the streets by vendors under unhygienic conditions. Additionally, hygiene maintenance, food safety and handling awareness in the natives is poor (Ma et al. 2019). These factors increase the risk of zoonotic diseases such as the major pathogens Salmonella, Campylobacter, Listeria, *E. coli* O157:H7, *Bacillus cereus* and Clostridium (Samad et al. 2018).

The purity of water is one of the utmost requirements for enjoying a healthy life. (Pandey 2006) Consumption of contaminated water by animals and humans can result in interaction with pathogens and pollutants resulting in GIT, psychological, and reproductive anomalies (Lee and Murphy 2020). Urbanization, industrial waste pollution, global warming, and garbage dumping in deep pits have polluted water resources in Pakistan and contributed towards environmental changes (Pandey 2006). Roughly about 2.2 billion people are consuming unsafe and harmful drinking water globally (World Health Organization 2017).

According to a survey only 20% of the population in Pakistan has access to nontoxic drinking water. (Daud et al. 2017) Pakistan is ranked 80th out of 122 countries in the context of drinkable water quality

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standards. If we don't pay heed towards improved water quality and we don't address the issues then we are going to confront a 60% drinkable due to the mixing of community, sewerage, and industrial waste without treatment. (Ilyas et al. 2019). In 2020, 410+ schools were thoroughly analyzed and a water test was run in Pakistan to determine the water quality and >49% of the tested samples were polluted with highly pathogenic microorganisms (Altaf Hussain et al. 2020). Another research reported a high contamination level of potable water in the Sibi district, Baluchistan with fluoride and arsenic (Chandio et al. 2020).

### 9. PUBLIC AWARENESS AND EDUCATION

Awareness campaigns have been launched to educate the public about zoonotic diseases, their transmission routes, and preventive measures. These campaigns include public service messages, educational materials, and workshops targeting both urban and rural populations. Our basic vision should be to make the people aware of the public about their health and wellness. Major hurdles in implementing Pakistan's health security that should be overcome are food insecurity, poverty, illiteracy overcrowding, and malnourishment, vaccination not reporting the disease timely, unhygienic sanitary treatment measures and consuming contaminated water. In 2002, three hundred attorneys from thirty-five countries discussed elevating awareness and rendering basic knowledge through seminars related to social threats and their effects on human and environmental health. (Ahmed and Shaikh 2011).

### 10. ZOONOTIC DISEASE CONTROL PROGRAM (ZDCP)

The ZDCP is a collaborative initiative between the Ministry of National Health Services and the Food and Agriculture Organization (FAO) of the United Nations for coordination and regulations. It focuses on strengthening surveillance, diagnosis, and control of priority zoonotic diseases such as rabies, brucellosis, and avian influenza. Vaccination campaigns have been conducted to control specific zoonotic diseases (Jost et al. 2007) For example, to prevent rabies transmission, the government has initiated mass dog vaccination programs in high-risk areas and promoted public awareness about responsible pet ownership and the importance of rabies vaccination.

### 11. STRENGTHENING VETERINARY SERVICES

The government has worked on enhancing veterinary services, including training and capacity building for veterinarians, promoting biosecurity measures in livestock farms and markets, and improving animal health management practices. These measures aim to cut down disease transmission from animals to humans. The need of an hour is to upgrade legal infrastructure to improve veterinary services in the country. Already working body has pointed out many flaws and deficient areas. A suitable and authoritative body should be established that reviews provincial and federal laws to improve regulations to control zoonoses (Erkyihun and Alemayehu 2022).

### 12. ANIMAL WELFARE

Animal welfare refers to the circumstances in which your domestic animal is from any stress and it should exhibit its natural behavior. Animals should be well fed and should be in a comfortable state. (Fraser et al. 2009).

### 13. INTERNATIONAL HEALTH REGULATIONS (IHR) COMPLIANCE

Pakistan is bound to follow the World Health Organization's International Health regulations and legal framework. This commitment includes strengthening the country's capacity for disease prevention, detection, and quick response to public health emergencies of international concern, which can include zoonotic disease outbreaks. Pakistan has a significantly legal model to endorse and implement the technical sector objectives of the IHR and the Global Health Security Agenda at the country level. Manage ports of entry for medicine, healthcare, health workers, food safety and more. Although some new legislation may be necessary, in general, the already legal running module provides a number of legal enhancements, such as basic laws and authoritative measures, which can help to comprehend necessary legal basis for the implementation of IHR, eliminating the need for parliamentary approval - the Time Process and a strong effort Legal basis for IHR coordination derives from the 1973 constitution and its amendments, which include coordination strategy between the various branches of government and working rules that define the duties and obligations of each concerned body. This legal framework is an example of best practice for countries to coordinate IHR. With the presence of significant changes to the Constitution since 1973, the government structure since IHR (2005), and the presence of several related laws in the national and provincial legal framework, there are inevitably some gaps, contradictions and directions for national reform. Provincial law provisions for IHR to secure an inclusive legal model, best practice is to direct a statutory and regulatory judgment to find specified domains for betterment (WHO 2017).

### 14. INFRA STRUCTURE DEVELOPMENT

Efforts have been made to enhance the skills and knowledge of healthcare professionals, veterinarians, and other relevant stakeholders through training programs and capacity-building initiatives. This enables them to effectively diagnose, treat, and prevent zoonotic diseases and strengthens the overall response to outbreaks. Following are some capacitance and infrastructure development plans that should be implemented in order to have control over zoonotic diseases and to avoid their emergence: At the national level there should be an appropriate communication structure to regulate control activities. Consider a one health triad and there should be veterinary, public health and environment sectors on the single and coordinated platform with a multidimensional strong cabinet or some mirror body which should take the necessary measures to control disease progression and develop a monitoring system (Ghai et al. 2022)

Governmental and political support is necessary to emphasize the economic burden of zoonoses, with comparative analysis including cost–benefit and cost–effectiveness analysis of control strategies. It should be done at the regional level. Build a strengthening partnership. with animal and human health organizations such as OIE, FAO, relevant pharmaceutical companies and interested nongovernmental organizations such as the World Society for the Protection of Animals (WSPA). Their collaborations should pay heed and develop various programs at the community level and support operational research in control and prevention (WHO 2017).

### 15. MANAGERIAL CONTROL AT SMALL SCALE

Many managerial gaps that are not addressed are familiar sources of zoonotic disease transmission. Improper washing of utensils that are placed near the shed and the laborer's interacting with animals after feeding or after touching forget to wash their hands with soap and



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this is also a main source of transmission. On commercial dairy farms and farms in rural areas, most of the people lack awareness. They don't vaccinate their animals and they lack dipping or spraying practices, neglecting deworming of animals and contact with feces will cause intestinal parasitic infections. The whole staff at the farm is at high risk. Animal caretakers and abattoir workers commonly encounter ectoparasites and infested tissue so safety measures should be taken like the use of gloves, gumboots, aprons and proper sanitization. Outbreaks of Crimean-Congo Hemorrhagic fever in Pakistan are considered to be linked with bad management, especially in tick-infested cattle (Awan et al. 2014).

At small-scale farm, shearing is an important task that is commonly accomplished in summer. The shearing persons do not use a mask or cover his face to avoid inhalation of infected air. Minor skin rupture and wounds during skin removal is often ignored or remain as it is that's actually is big source of transmission of blood-borne infections (Abbas et al. 2014).

### 16. STRATEGIC PLANNING

An important task that is performed by the state system and especially by the health care system to control zoonoses is strategic planning. It is planned, logical and compact, allowing public health foundations to keep an eye on relevant tasks and sustainability of the future. That's why, strategic planning is crucial to ensure cost-effective quality maintained and safe services for health managers. It will enhance the management's basic concepts of external threats, forces and organization. Clarified policy is essential to control and reduce zoonotic diseases. For controlling and preventing of disease countries should use suitable strategic planning and pursue annual objectives (Nantima et al. 2019).

Generally, three steps are involved in strategic planning as mentioned in Fig. 2.

#### 16.1. STRATEGY DEVELOPMENT

Strategy plays an important role in which the concerned body achieves its main objectives. Firstly, these strategies are required to be developed for zoonotic diseases. Internal and external resources are assessed to review the health system and zoonotic disease. It aids in looking for pros and cons and the deficiencies of a system that might pose a risk to public safety (Ghanbari et al. 2021).



**Fig. 2:** Steps involved in strategic planning

#### 16.2. STRATEGY IMPLEMENTATION

After the development of suitable strategies related to zoonoses next step is implementation. In the second phase of strategy implementation, the planned plan must be implemented through negotiation

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and cooperation with all resources related to the stages of zoonotic diseases, including prevention, control and treatment. Financial resources, enough workforce, and equipment are required for the efficient implementation of strategies. (Ghanbari et al. 2021).

### 16.3. STRATEGY EVALUATION

Implemented planning should be analyzed to assess the progress and efficiency of the strategy. This way health workers would be well aware of the ways to achieve goals and to rectify the issues. The only option left behind to have full control to deal with issues is evaluation and control programs. Eventually by these strategies' tasks would be accomplished (Ghanbari et al. 2021).

### 16.4. SHORT AND LONG-TERM GOALS

The conceptual difference between time-limiting (short term) and long-lasting (long term) goals can also assist us in getting our objectives achieved of a health system. Pinpoint apprehension of the present scenario and the prowess to have an eagle-eye view for the future perspective is likely not to be understood without considering the difference between time-limiting and long-lasting goals. A long-term goal usually decides the well beingness of community health in upcoming years and these are integrally technical. On the other hand, short-term goals are faster to achieve and are easily approachable. (Bailey 2019) In materializing short- and long-term goals, focus should be kept on the following characters to be them put in a nutshell:

### 16.5. SPECIFIC

In health systems, objectives are required to be specific and all ambiguities should be removed but highlighted points should be focused on a specified matter like zoonotic diseases with clear motive.

### 16.6. MEASURABLE

Analyzing the extent of goal achievement depends on their measurability. If strategic planning is up to mark it will assist in ensuring quality set points. In this way outcome of overall health systems in the context to zoonoses can be calibrated, and stake holders for policy making along with health care managers could understand their progress.

### 16.7. ACHIEVABLE

Suitable analysis of workforce, fiscal responsibilities, and apparatus should be conducted in a better way to check for the achievability of concerned goals. Feasibility and being able to operate are vital points that are to be checked to keep your project achievable (Sadeghifar et al. 2015).

### 16.8. TIMELY RESOURCES AND FACILITIES

The probability of achieving any goal depends on considering these finite limitations. The experience of diseases such as SARS, Avian Influenza, and COVID-19 showed that in most of the states, there was inadequate awareness about their basic facilities and resources; that's why the disease progressed (Spallina 2004).

## 17. CONCLUSION

The government is taking the best initiatives to control zoonotic disease in the zone. However, some new policies are under their way. One health program is the need of hour where animal health, human health and the environment are under one umbrella. This approach is essential for controlling zoonotic diseases worldwide, as it allows for a comprehensive and coordinated response to these diseases. The World Organization for Animals, the World Health Organization, the Food and Agriculture Organization of the United Nations, and Health have all developed policies and guidelines to help countries to control zoonotic disease transmission.

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