One Health

One Health
The Past and Future

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Fukuoka Veterinary Medical Association

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Praying for the Creation of a Safe and Secure Society

Isao Kurauchi
President, Japan Veterinary Medical Association
Honorary President, Fukuoka Veterinary Medical Association

The Japan Veterinary Medical Association (JVMA) is promoting the One Health initiative with the activity guidelines, “Animal health and people’s health become one. That is a wish of the Earth”

In November 2013, we concluded an agreement with the Japan Medical Association (JMA) based on these activity guidelines to promote academic cooperation following the principles of One Health. Since then, we have held symposia on themes such as “Common Infectious Diseases in Humans and Animals” and “Current Status and Issues of Antimicrobial Resistance in human and animal.” We have also made requests to the Japanese government for the promotion of the One Health initiatives.

The “2nd WVA-WMA Global Conference on One Health” was held in Kitakyushu City in November 2016. The “Fukuoka Memorandum,” which will be the foundation for future One Health activities, was released to the world at that time.

One Health covers a broad range of sectors. The understanding and cooperation of many people in various sectors are required to implement the initiative.

We have prepared a comprehensive booklet that explains the One Health initiative in Fukuoka Prefecture. We hope that this booklet will deepen your understanding of One Health and encourage you to implement One Health to create a safe and secure society.

Fukuoka Prefecture - the Leading Region of One Health

Yoshitake Yokokura
Honorary President, Japan Medical Association

The global spread of COVID-19, a new coronavirus infection, is still raging, casting a large shadow over people’s social lives as well as medical care, the economy, and employment. Since this virus is believed to have been transmitted from bats to humans through other animals, it reminded me of the importance of promoting One Health.

In 2013, the Japan Veterinary Medical Association (JVMA) and Japan Medical Association (JMA) concluded an academic agreement to promote One Health. Since then, we have presented as a symposiast at the Global Conference on One Health held in Madrid, Spain in 2013, and organized the 2nd Global Conference held in Kitakyushu City in 2016, where the “Fukuoka Memorandum” was adopted. Both Associations have been working together based on the concept of One Health.

We will be promoting various initiatives to counter globalizing infectious diseases. These initiatives include establishing the “Asian Center for Disease Control,” organizing the “One Health” International Forum, and reviewing the “Prefectural Ordinance for One Health.” I hope that Fukuoka Prefecture will be a leader of the One Health initiative in Asia and throughout the world, promote various research, and continue to disseminate the importance of One Health. We ask for your continued support as we continue to strive for the development of One Health.

Deepening Understanding of One Health

Hiroshi Ogawa
Governor, Fukuoka Prefecture

I would like to express my sincere gratitude to the members of the Fukuoka Veterinary Medical Association for their continued efforts to promote the livestock industry and improve public health in Fukuoka Prefecture.

As people's lifestyles change and the distance between humans and animals shortens, awareness of issues such as the spread of zoonotic diseases and antimicrobial resistance, where antimicrobial drugs become ineffective, is increasing. COVID-19, a novel coronavirus disease that is currently raging around the world, is also said to be a zoonotic disease. The concept of the "One Health Approach", a trans-disciplinary collaboration of people involved with humans, animals, and the environment, and which views the health of humans and animals as one, is essential to solving these issues.

In 2016, the Japan Veterinary Medical Association (JVMA) and Japan Medical Association (JMA) collaborated to hold the "2nd WVA-WMA Global Conference on One Health" in Fukuoka Prefecture. The "Fukuoka Memorandum," outlining the increased collaboration and cooperation of doctors and veterinarians to prevent zoonotic diseases, was adopted at that time.

Fukuoka Prefecture will collaborate with related organizations, including the Fukuoka Veterinary Medical Association and Fukuoka Prefecture Medical Association, to promote measures such as holding educational events and disseminating information on the concept of One Health. I hope that this booklet will help deepen our prefecture residents' understanding of One Health.

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What is One Health?

One Health
Ryo Hirano

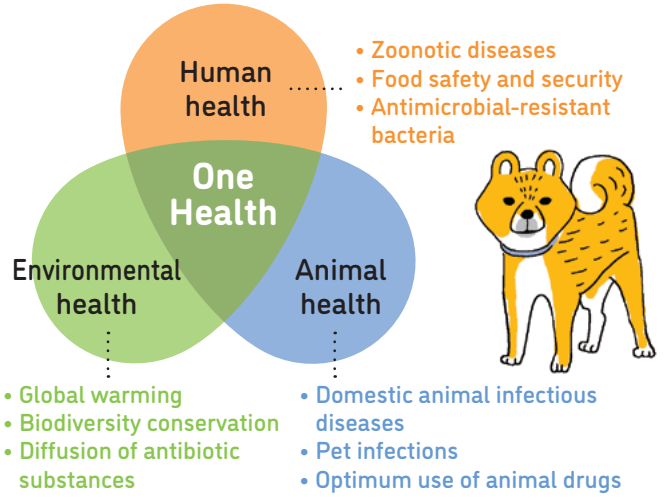
Born in 2011, Resides in Sue Town

'The first animal I drew was a lion. I was about four years old and thought the lions I saw at the zoo and on TV were really cool. I love all animals. I drew this picture thinking how fun it would be if we could all play together.'

Philosophy of One Health

One Health is a social movement based on the concept that the health of humans and animals, and the environment are closely linked. It moves to resolve various issues facing people, animals, and the surrounding environment through the collaboration of doctors, veterinarians, researchers, as well as governments, businesses, and citizens.

The One Health initiatives for addressing various challenges are based on the following six pillars: (1) Zoonosis Control, (2) Countermeasures for antimicrobial-resistant bacteria, (3) Environmental protection, (4) Creating a symbiotic relationship between humans and animals, (5) Health promotion, and (6) Creating better relationships between environment, humans, and animals.



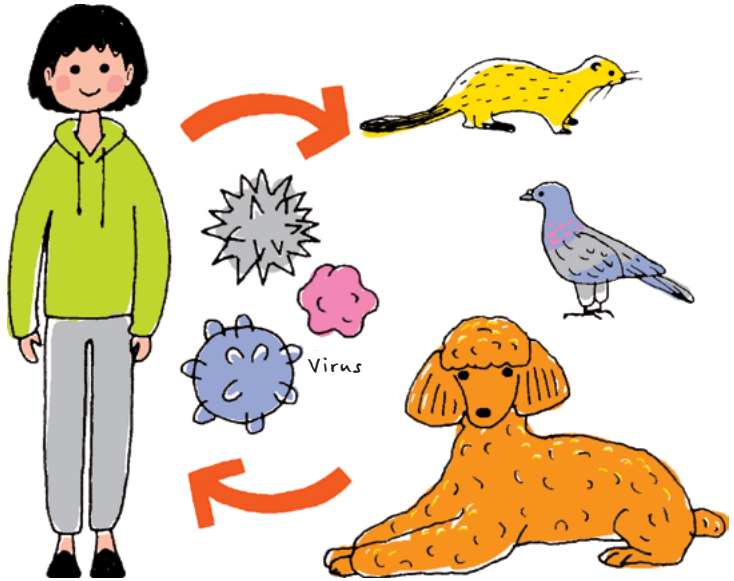
1 Zoonosis Control

Physicians and veterinarians cooperating in Fukuoka Prefecture
Preventing the occurrence and spread of disease

It is said that there are more than 1,400 types of pathogens that can infect humans. Pathogens refer to viruses and bacteria that can cause illness. Diseases that are transmitted from animals carrying the pathogens to humans, or vice versa, are called “Zoonotic Diseases.” Many diseases have caused serious problems in Japan and overseas, including novel coronavirus diseases, new strains of influenza, Bovine Spongiform Encephalopathy (BSE), avian influenza, and Ebola hemorrhagic fever.

To prevent being infected by one of these diseases, countermeasures must be implemented for each of the following three elements: (1) The source of infection (an organism that carries the pathogens and can infect humans or animals, etc.), (2) The infection route (droplet infections from sneezing or coughing, or contact infection caused when virus on hands gets into the eyes or mouth), and (3) Host (parasitic or symbiotic organism infected by parasite or virus, etc.). It is important to take approaches designed for humans, animals, and the environment to prevent infection to humans or animals.

Specifically, the government requires notification of animals



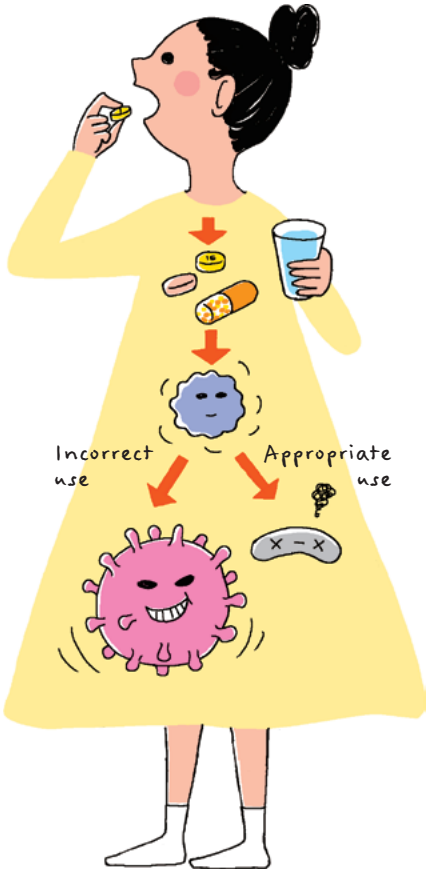
taken out of the country or purchased outside the country and a notification by physician or veterinarian assessing contagion to the public health center, etc. In Fukuoka Prefecture, the “Program for the Promotion of Cooperation of Physicians and Veterinarians with Regard to Zoonosis Control” has been implemented. This Project ensures cooperation by the Fukuoka Prefecture Medical Association, Fukuoka Veterinary Association, and government agencies to share information, organize challenges, and work together to prevent the occurrence and spread of zoonotic diseases.

2 Countermeasures for Antimicrobial-Resistant Bacteria
(Proper use and management of drugs)

Taking action from 2016 to prevent the spread and raise awareness, etc.

"Antimicrobial resistant bacteria" refers to bacteria that have more or completely resistant to antimicrobial agents (antibiotics, etc.). When antimicrobial agents are used excessively or improperly, the antimicrobial agents cause some of the multiple bacteria in the human body to disappear, while some antimicrobial resistant bacteria survive. Tuberculosis and malaria are common diseases that have become a problem because of excessive use of antibiotics. Today, treatment of antimicrobial-resistant bacteria and drug-resistant malaria is very difficult. In addition, antimicrobial resistant bacteria are increasing worldwide and spreading across borders. Because of this situation, we are at a stage where global cooperation for proper drug usage is an urgent issue.

In 2015, the World Health Organization (WHO) General Assembly adopted the Global Action Plan to address countermeasures for antimicrobial-resistant bacteria. Member nations were asked to enact their own National Action Plan. In 2016, Japan established six goals to delay the occurrence and prevent the spread of antimicrobial-resistant bacteria.



These goals include (1) Public Awareness and Education, (2) Surveillance and Monitoring, (3) Infection Prevention and Control, (4) Appropriate Use of Antimicrobials, (5) Research and Development, and (6) International Cooperation. Appeals on the importance of countermeasures for antimicrobial-resistant bacteria have also been made at the United Nations General Assembly and G7 Summit (Summit Conference of the Leading Industrialized Nations).

3 Environmental Protection

Maintaining a good environment and habitat isolation for biodiversity

In recent years, globalization and large quantities of food production have destroyed the forests and ecosystems that are precious to humans and animals and have contributed to climate change.

One factor is global warming, which has increased the risk of heatstroke and caused various disasters, including torrential rains, typhoons, and wildfires, causing serious damage for humans, plants, and animals. As we can see, the environment is closely related to the health of humans and animals.

Large-scale deforestation and rapid development and urbanization have also presented opportunities for people to encounter pathogens, such as viruses, that were once only found in the deep jungle. There is a risk of new contagious diseases emerging. It is important that “humans do not come in contact with microorganisms quietly inhabiting the deep jungle.”

The natural environment is home to diverse living things, including humans. The health of humans and animals is secured by maintaining a good environment and ensuring habitat isolation for biodiversity. We must not forget to hand down this environment essential for health to the next

generations.

* The 17 goals in the “Sustainable Development Goals: SDGs” adopted by the United Nations in 2015 include several goals, such as “Good Health and Well-being,” “Quality Education,” and “Climate Action” which overlap with the One Health Action.

4 Creating a Symbiotic Relationship Between Humans and Animals

Keeping good relationships with our pets
Ensuring pet health, including regular checkups

In this society with an aging population and low birth rate, pets, such as dogs, cats, birds, and goldfish are increasingly being welcomed as members of the family. They are playing an important position as a companion. For today's elderly, pets are partners that grow old together, and for children, pets are trainers for developing social skills.

Humans are in a position to protect the health of our pets, and at the same time, pets contribute to promoting humans' health and improving quality of life (QOL). It is said that smiles and conversation increase when in the company of a pet. Pets have a relaxing effect that can calm down emotions. Data shows that petting a dog or cat can reduce stress and stabilize heartbeats and blood pressure. Because of this, pets are active in various fields, including medicine, welfare, and education.

On the other hand, there are also problems such as dog and cat abuse and uncontrolled or excessive breeding, which results in abandonment or culling.

To maintain good relationships with pets, it is important to understand the importance of pets and learn how to take care of them. When keeping a dog, it is mandatory to register

the dog and get a rabies vaccination once a year. Pathogens such as fleas and ticks can infest pets, so it is important to maintain good hygiene with periodic removal and regular health checks.

5 Health Promotion

Treasuring relationships between family, pets, and environment

Everyone wishes for good health. According to the WHO Constitution, “Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.”

People employed by a company have an annual health exam and can learn the state of their health through data. There are probably few people whose exam results show all health data in the normal range. In some cases, exams might discover an illness that requires immediate treatment, and can help people improve their daily habits to prevent the emergence of illness. Even if you have an illness, it is important to have an attitude of “I may be sick, but I am doing my best daily.” This thought should be fostered by surrounding oneself with good family members, neighbors, friends, and pets, having a role, and having hobbies and a purpose in life.

When promoting our health, we must treasure our relationships with our family, pets, and environment. Humans do not live alone; we maintain our health within a healthy and diverse environment of animals and plants.

6 Creating Better Relationships between Environment, Humans, and Animals

"Safe and Secure" Foods that support health, and Promotion of "food education" are indispensable

Various microorganisms travel between the environment, humans, and animals. While some microorganisms can cause humans or animals to become ill, some are beneficial to the human and animal body. Beneficial microorganisms called "good bacteria," including lactic-acid bacilli, Lactobacillus bifidus, and yeast can suppress bad bacteria and regulate the gut environment. Humans and animals cannot live without these good bacteria which enter our bodies via "food."

Needless to say, the environment that produces "food" must not be polluted with harmful substances. For example, farmland (soil), sun, and water are required to make agricultural products such as rice and vegetables. Livestock products such as meat, eggs, and milk are born from the "life" of animals (livestock). Preventing livestock infectious diseases and keeping the livestock healthy with safe feed is also linked to human health.

Many humans are involved with the production of agricultural, livestock, and marine products. To make "safe and secure" food, it is essential to produce the food locally

where the production state of the agricultural, livestock, and marine products can be directly confirmed and to sustain the various occupations and jobs supporting this industry. It is also essential to promote "food education," which teaches "what we should eat" and "what we must not eat".

column

“Agriculture” and “One Health” - Keys to Creating Sustainable Healthy Communities

Atsushi Ueda,
Board Chairman, NPO Asian Health Promotion Network Center
Director, One Health Creates
Professor Emeritus, Kumamoto University

I. “Reflecting on “Living Healthy” - The Meaning of QOL and Health

I imagine we all want to live happy days filled with hope for tomorrow. We call this Quality of Life (QOL). The practice of means and efforts to improve QOL is the ultimate target of health promotion. I believe the definition of QOL is “The degree to which a person enjoys the important possibilities of his or her life.” (University of Toronto, Centre for Health Promotion, 1996).

Health is the most important resource for maintaining and improving the quality of life, as stated in the Ottawa Charter for Health Promotion (1986) presented by the World Health Organization (WHO) to raise the philosophy and principles of health promotion activities. In this sense, the definition of health is not simply the elimination of illness or disabilities but rather maintaining society in a stable state. The WHO Constitution (1946) states, “The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being.”

II. “Subjective Health” for Supporting “Living Healthy”

Subjective health refers to how individuals assess their current health state in relation to their own lives, instead of objective health, which is based on medical examinations.

It has been epidemiologically proven that self-assessment using subjective health is a predictor of future survival and mortality compared to an objective health assessment. (Idler et al., 1990) An investigation that tracked a certain community's residents for ten years reported that for individuals who assessed that they were in “excellent health” with a subjective rating, the mortality rate after ten years was approx. 40% lower compared to those who rated their health as poor. (Kaplan G.A. et al., 1983)

III. SDGs and One Health supporting “Living Healthy”

One Health is the concept that we must maintain the environment and the earth, not only for humans' health but also for all living creatures to live together in good health. This concept is common with the principles and practice of SDGs, which is being promoted worldwide. SDGs and One Health are key to ensuring that we can continue to live a healthy lifestyle. This booklet details the specific principles, history, and practice of One Health. I hope you will read this booklet and actively learn the concepts and practices of One Health.

IV. Power of “Agriculture and Forestry” for Supporting the Principles and Practice of “One Health”

IV-1. Role of agriculture and forestry for sustaining local communities

Agriculture and forestry form the basic livelihood of a community from the perspective that they: (1) Form a natural environment and ecosystem based on water and greenery, (2)

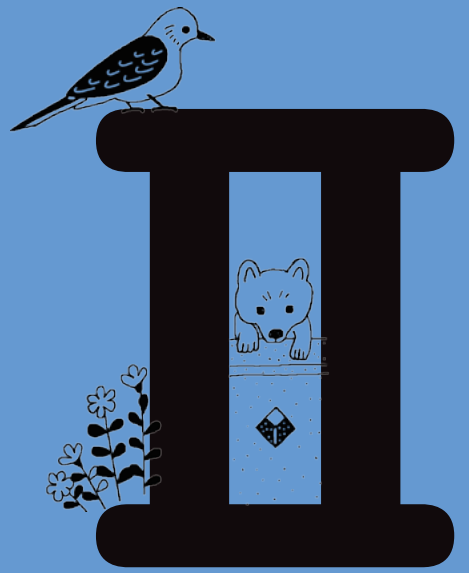
Establish a cooperative such as Yui or Moyai, (3) Are an industry that forms the basis for the reproduction and circulation of life, and (4) Have multi-faceted functions beyond the production of foods and clothing. “Life” based on these characteristics can be called “agricultural life.” In this sense, agriculture and forestry and One Health are headed in the same direction and are expected to function mutually toward creating a sustainable healthy society for the future.

IV-2. Role of Agriculture in Building a Sustainable Healthy Society

Agriculture and forestry have a health-promoting effect. For example, agriculture and forestry sites have the power to revitalize the health of living things, just like shinrinyoku (forest bathing). Farm work is effective in recovering and improving physical and mental functions, regardless of whether the participant has physical or mental disabilities. Agriculture and forestry (primary industries) are highly evaluated for their multi-faceted functions other than food production and for disaster prevention functions.

IV-3 Recommending agricultural life for supporting “One Health” to young people

In closing, I especially propose the following three key actions to young people. (1) Action to experience and participate in agriculture and forestry, (2) Action to collaborate with agriculture and forestry workers, (3) Actions to build an agricultural life. I hope you will try practicing agricultural life through individual studies or group studies.



History of One Health

The Origin of One Health in Kyushu Dr. Shinkichi Umeno

Dr. Shinkichi Umeno is a world-renown veterinarian who became known for improving the inoculation technique for smallpox and developing a vaccine for rabies. Dr. Umeno was born in Amagi Town, Fukuoka Prefecture (present-day Asakura City), in 1862. From 1881, he studied at a private veterinary school in Tokyo (present-day Nippon Veterinary and Life Science University) under a grant from Fukuoka Prefecture. After graduating, he returned to Fukuoka, where, in 1886, he established and taught at the Amagi Veterinary School.

Dr. Umeno moved to Tokyo later, where he was approached by Dr. Shibasaburo Kitasato (born in present-day Oguni Town, Kumamoto Prefecture in 1853), who had just returned from Germany. As a student of Dr. Kitasato, Dr. Umeno was involved in bacteriological research and serum production. After holding several important posts, in 1911, Dr. Umeno established the private Nippon Veterinary School, the predecessor to Nippon Veterinary and Life Science University, and became its president in 1919. In 1908, he was awarded the Doctor of Veterinary medicine from the Tokyo Imperial University (present-day The University of Tokyo).

Dr. Umeno's two main achievements are as follows:
(1) Development of smallpox vaccine (1901)

Under the guidance of Dr. Kitasato, Dr. Umeno succeeded in developing a smallpox vaccine that was effective even when a smallpox virus cultured in a cow was transferred to another cow. This development made it possible to easily produce large amounts of smallpox vaccine.
(2) Development of rabies vaccine (1916)

Dr. Umeno successfully developed a rabies vaccine that was effective with one dose. This achievement led to the prevention of canine and human rabies and greatly contributed to eradicating rabies in Japan. This vaccine was also adopted worldwide and helped to greatly reduce the occurrence of rabies and the number of deaths.

The connection and cooperation between Dr. Kitasato (physician) and Dr. Umeno (veterinarian), who achieved a worldwide feat by developing vaccines for contagious diseases such as smallpox and rabies, is truly the origin of One Health in Kyushu.

Dr. Shibasaburo Kitasato and Dr. Shinkichi Umeno (right), together with the sheep given the first dose of artificial immune serum in Japan
This sheep was the start of serum therapy research in Japan
(Photo source: The Kitasato Institute)

Japan Veterinary Medical Association Initiatives

Establishing "Animal health and people's health become one. That is a wish of the Earth" as our activity guidelines

The Japan Veterinary Medical Association (JVMA) focused on the philosophy of One Health and adopted "Animal health and people's health become one. That is a wish of the Earth" as guidelines for our activities in 2010. In November 2013, we concluded an agreement with the Japan Medical Association (JMA) to promote academic cooperation based on One Health. By 2016, all 55 regional veterinary medical associations in Japan had concluded similar cooperative agreements with the regional medical associations.

Based on this agreement, we have held eleven cooperative symposiums, starting with the "Joint Symposium - Studying Zoonoses, The Current Status and Measures of Rabies Control" in 2014. These symposiums present an opportunity for physicians and veterinarians to exchange information.

In 2015, Isao Kurauchi, President of the Japan Veterinary Medical Association and Yoshitake Yokokura, President of the Japan Medical Association both gave presentations at the "1st WVA-WMA Global Conference on One Health" held in Madrid, Spain. At the "2nd WVA-WMA Global Conference on One Health" held in Kitakyushu City in 2016, the "Fukuoka Memorandum," the cornerstone of One Health, was adopted and released to the world.

北九州で合同国際会議

世界獣医師会と医師会、600人参加

世界獣医師会と世界医師会による合同国際会議で講演する田中耕一さん
＝10日午前、北九州市小倉北区

エボラ出血熱や鳥インフルエンザなど「人と動物の共通感染症」をテーマとする世界獣医師会（本部・ベルギー）と世界医師会（同・フランス）の合同国際会議が10日、北九州市小倉北区のホテルで始まった。

会議は人や動物の健康のために、関係者が協力して対応しようという理念「ワンヘルス」の具体化を目的に、昨年5月にスペイン・マドリードで開かれ、今回が2回目。11日までの2日間、約30カ国の約600人が出席し、世界的流行が懸念される共通感染症や抗生物質が効かない薬剤耐性菌の問題などを話し合う。

秋篠宮ご夫妻も出席された開会式で日本医師会の横倉義武会長は「医師と獣医師がワンヘルスの理念を共有し、知恵を結集することで、さらなる感染症対策の推進、医学・獣医学の進歩につながると確信している」とあいさつ。続いてノーベル化学賞受賞者で島津製作所の田中耕一シニアフェローが基調講演した。

午後は福岡県の地域協力の現状を関係者が報告。11日は会議の成果を盛り込んだ「福岡宣言」を採択し閉幕する。（野村創）

Article from the evening edition of the Nishinippon Shimbun dated November 10, 2016

◆感染症国際会議が「福岡宣言」

「人と動物の共通感染症」をテーマに北九州市小倉北区で開かれていた世界獣医師会と世界医師会の合同国際会議は11日、獣医師と医師の連携強化を盛り込んだ「福岡宣言」を採択し、閉幕した。

宣言は「共通感染症予防のための情報交換を促進し協力関係を強化する」など4項目。人と動物の健康に向けて関係者が協力する理念「ワンヘルス」について「認識する段階から行動・実践する段階に進む」と強調した。会議には約30カ国600人が出席。閉幕後の記者会見で日本獣医師会の蔵内勇夫会長は「地元の福岡県や北九州市も会議に参加し県民、市民に（会議の成果を）共有できた」と話した。

Article from the morning edition of the Nishinippon Shimbun dated November 12, 2016

2nd WVA-WMA Global Conference on One Health

Fukuoka Memorandum

Humankind has a responsibility to show respect for all forms of life on Earth as well as for the environment. Physicians and veterinarians have the scientific knowledge, medical training, statutory accountability, as well as the opportunity and the responsibility to engage in a wide range of employment fields that deliver services to the benefit of people, animals, and the environment.

In October 2012, the World Veterinary Association and World Medical Association signed a memorandum to collaborate in a unified approach to tackle common health issues to improve Global Health, and to focus on zoonotic diseases, responsible use of antimicrobials, and enhancing collaboration on education, clinical care and public health.

In November 2013, the Japan Medical Association and Japan Veterinary Medical Association signed a written agreement to share academic research information related to the development of human and veterinary medicine as well as to collaborate together to build a safe and healthy society. In addition, JMA and JVMA agreed to reinforce collaborations on infectious diseases, disaster preparedness, and management according to the lessons learned from the 2011 Great East Japan Earthquake. The conclusion of this agreement was also achieved by regional medical associations and regional veterinary medical associations throughout Japan.

In November 2016, the World Veterinary Association (WVA), World Medical Association (WMA), Japan Medical Association (JMA), and Japan Veterinary Medical Association (JVMA) jointly held the Second WVA-WMA Global Conference (GCOH) on One Health in Japan following the inaugural GCOH held in Madrid, Spain, in 2015.

Physicians and veterinarians from around the world gathered together in Fukuoka, Japan, to exchange information and consider effective countermeasures to important global threats related to “One Health”, including zoonotic diseases and antimicrobial resistance, and laudable results were achieved.

Based on the outcomes of this conference, WVA, WMA, JMA, and JMVA agree to move from the validation and recognition stage of the “One Health Concept”, to the practical implementation stage. We hereby declare the following:

1. Physicians and veterinarians shall promote the exchange of information aimed at preventing zoonotic diseases and strengthening cooperative relationships, as well as to undertake further collaboration and cooperation aimed at creating a system for zoonosis research.
2. Physicians and veterinarians shall strengthen their cooperative relationships to ensure the responsible use of important antimicrobials in human and animal healthcare.
3. Physicians and veterinarians shall support activities for developing and improving human and veterinary medical education, including understanding the One Health concept and approach to One Health challenges.
4. Physicians and veterinarians shall promote mutual exchange and strengthen their cooperative relationships in order to resolve all issues related to the creation of a healthy and safe society.

Signed in Kitakyushu City, Fukuoka Prefecture on November 11, 2016. Representatives of the four organizations shook hands after the signing. (From left: Isao Kurauchi, President, Japan Veterinary Medical Association, Johnson Chiang, President-Elect, World Veterinary Association, Xavier Deau, immediate Past President, World Medical Association, Yoshitake Yokokura, President, Japan Medical Association)

Fukuoka Prefecture Initiatives

Start of "Program for the Promotion of Cooperation of Physicians and Veterinarians with Regard to Zoonosis Control"

In December 2013, the Fukuoka Veterinary Medical Association and Fukuoka Prefecture Medical Association agreed to promote academic cooperation based on One Health's concept. Following this, Fukuoka Prefecture started to promote the One Health initiative to the citizens with the "Program for the Promotion of Cooperation of Physicians and Veterinarians with Regard to Zoonosis Control."

A Council for Zoonosis Control was established to discuss the direction of this program and give advice. The Council's members include Fukuoka Prefecture, Fukuoka Prefecture Medical Association, Fukuoka Veterinary Medical Association, cities with public health centers in the prefecture (Fukuoka City, Kitakyushu City, Kurume City), and academic experts. This Council had a commanding role in promoting the One Health measures in Fukuoka Prefecture.

In addition, the Fukuoka Veterinary Medical Association and Fukuoka Prefecture Medical Association have cooperated in holding a total of six sessions of Symposium on Zoonosis Control and Fukuoka Prefecture One Health Joint Symposiums between January 2015 and January 2020.

Outline of Joint Symposiums and Keynote Speeches

- 1st Symposium on Zoonosis Control
  January 18, 2015, Fukuoka City
  "Outbreak of Ebola hemorrhagic fever in West Africa", etc.
- 2nd Symposium on Zoonosis Control
  January 11, 2016, Fukuoka City
  "Zoonotic Diseases", etc.
- 3rd Symposium on Zoonosis Control
  November 12, 2016, Kitakyushu City
  "One Health: Protecting one world for humans and animals"
- 4th Symposium on Zoonosis Control
  January 13, 2018, Fukuoka City
  "One Health from the Perspective of Humans, Animals, and the Environment"
- 5th Fukuoka Prefecture One Health Joint Symposium
  February 3, 2019, Fukuoka City
  "Rabies Measures around the World and the One Health Approach"
- 6th Fukuoka Prefecture One Health Joint Symposium
  January 25, 2020, Fukuoka City
  "Biological Risks of Global Environmental Change: Zoonosis as an Interface between Biodiversity and Human Health"

Fukuoka Veterinary Medical Association Initiatives

Following the academic agreement concluded by the Japan Veterinary Medical Association (JVMA) and the Japan Medical Association (JMA) in November 2013, the Fukuoka Veterinary Medical Association and Fukuoka Prefecture Medical Association became the first regional medical association and regional veterinary medical association in Japan to conclude an academic agreement. The agreement was signed in December 2013 in the presence of Deputy Governor Seitaro Hattori at the Fukuoka Prefectural Government Office.

With this academic agreement as an opportunity, we have collaborated with related organizations, including the Fukuoka Prefecture Medical Association, to implement the following four initiatives related to the One Health related projects implemented by Fukuoka Prefecture.

(1) Council for Zoonosis Control
(2) Survey of zoonotic disease emergence
(3) Training on zoonotic disease countermeasures
(4) Symposiums on Zoonosis Control

In 2020, a One Health Promotion Committee was established in the Fukuoka Veterinary Medical Association. Together with One Health Creates, this Committee organized the “One Health Festival 2020,” various training sessions, and public relation activities, etc.

December 2013 Academic agreement concluded between Fukuoka Prefecture Medical Association and Fukuoka Veterinary Medical Association

January 2015 “Symposium on Zoonosis Control”

Movements related to One Health

1860s	Virchow (Rudolf Virchow: cellular pathologist) coined the term "Zoonosis" and suggested that collaboration of human medicine and veterinary medicines was necessary to combat zoonosis.
1960s	Schwabe (Calvin Schwabe: father of veterinary epidemiology) proposed the concept that humans are a type of animal and that medicine is integral "One Medicine."
1993	**24th World Veterinary Congress** (WVC) (Berlin, Germany) "Berlin Memorandum" adopted.
1995	**25th World Veterinary Congress** (WVC) (Yokohama, Japan) Declaration made to "Promote the prevention of zoonotic diseases, establish bonds between humans and animals, and strive for the development of a peaceful society and environmental conservation." Japan Veterinary Medical Association (JVMA) "OATH OF VETERINARIANS - DECLARATION '95" established
2004	WCS (Wildlife Conservation Society) enacted the Manhattan Principles "One World, One Health" The Manhattan Principles, consisting of twelve recommendations, propose that the interdisciplinary and cross-sectoral "One Health Approach", with the cooperation of many sectors, is necessary for preventing epidemic/epizootic disease and for maintaining ecosystem integrity for the benefit of humans, their domesticated animals, and the foundational biodiversity.
2009	OIE (World Organisation for Animal Health) "One World, One Health" is proposed.
2010	Japan Veterinary Medical Association (JVMA) Activity guidelines "Animal health and people's health become one. That is a wish of the Earth" are enacted.
2012	WVA and WMA (World Medical Association) "Memorandum on the Promotion of One Health" is signed.
2013	Japan Medical Association (JMA) and Japan Veterinary Medical Association (JVMA) "Academic agreement for the promotion of One Health" is concluded.
2015	**1st WVA-WMA Global Conference on One Health** (Madrid, Spain) World Health Organization (WHO) "Global Action Plan to Tackle Antimicrobial Resistance (AMR)" is adopted.
2016	**2nd WVA-WMA Global Conference on One Health** (Kitakyushu City) "Fukuoka Memorandum" adopted to act and practice based on the concept of One Health.
2017	**33rd World Veterinary Congress** (WVC) (Incheon, South Korea)
2018	**Veterinary Summit of 3 East-Asian Countries** (Japan, Korea, Taiwan) "The Memorandum on the Promotion of Veterinary Academic Interaction among JVMA, Korea Veterinary Association, and Taiwan Veterinary Association" was signed.
2019	**Veterinary Summit of 3 East-Asian Countries** (Yokohama)
2020	Fukuoka Prefecture "Fukuoka Prefecture Basic Ordinance for the Promotion of One Health" is enacted.
2021	**1st Fukuoka Prefecture "One Health" International Forum** (Fukuoka City)
2022	**22nd FAVA Congress 2022** (Fukuoka City)

Column

Promotion of One Health for Building a Sustainable Society

Takeo Sakai,
Consultant, Japan Veterinary Medical Association
Professor emeritus, Nihon University

Why are there frequent occurrences of "zoonotic diseases" such as avian influenza, Ebola hemorrhagic fever, rabies, Middle East Respiratory Syndrome, or severe fever with thrombocytopenia syndrome?

Around the world, humans have conducted large-scale deforestation to make room for cultivated land and residential areas. This reduction in forests has caused wild animals, which originally lived in the forests, to invade humans' living and activity areas. There are more opportunities for humans, domestic animals, and household pets to come in contact with these wild animals and be infected by the pathogens they carry, either directly or through blood-sucking insects, etc.

On the other hand, in depopulated areas, there are fewer hilly and mountainous areas and more abandoned farmland. Wild animals, and the blood-sucking insects that are parasitic on them, enter human settlements more easily, increasing the chance that humans and livestock will come in contact.

While many countries have strengthened their quarantine systems in recent years, transportation methods and transfer means have become globalized and faster, and cargo size has increased. These means make it possible for pathogens to spread quickly, widely, and within the incubation period, and for infections to spread.

In addition, the scale of livestock and poultry farming has increased, and large numbers of livestock or poultry with the same genetic traits or age are bred at the same farm. Infections spread once pathogens invade the farm. Also, the increase in regional conflicts in many parts of the world has resulted in more areas with poor public health conditions and increased opportunities for outbreaks of infectious diseases.

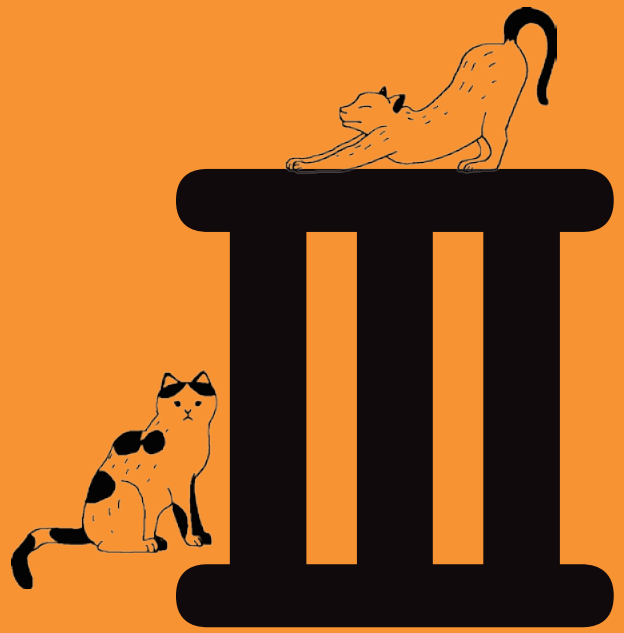
On the other hand, progress in science has led to the development of highly sensitive and accurate testing methods for detecting pathogens. As a result, previously unknown causes are being rapidly and accurately detected, and more infectious diseases have become known.

In addition to COVID-19, which is causing problems worldwide, severe acute respiratory syndrome coronavirus and Middle East respiratory syndrome coronavirus are thought to have originated when humans were infected via an animal. In Japan, we have approximately 50 types of "zoonotic diseases". Early regional containment is essential for cutting off the cycle of infection outside. Continuous surveillance and management of wildlife habitats are indispensable for this.

In 2012, the World Medical Association (WMA) and World Veterinary Association (WVA) concluded an academic agreement to resolve issues such as "zoonotic diseases" and "antimicrobial-resistant bacteria." In response to this, the Japan Medical Association (JMA) and Japan Veterinary Medical Association (JVMA) also concluded an academic agreement in 2013. Both Associations participated in the 1st WVA-WMA Global Conference

on One Health held in Madrid, Spain, and co-sponsored the 2nd WVA-WMA Global Conference on One Health held in Kitakyushu City in 2016. The One Health initiative, which was started by these efforts, is based on the idea that animals, people, and the environment, including the ecosystems that surround them, are closely linked. Sustainable development of the Earth and society can only be achieved if the health of each sector is developed together.

To build a sustainable society, we must review human activities by promoting a symbiotic relationship between humans and animals, encouraging biodiversity, reducing environmental pollutants, and implementing global warming countermeasures. In other words, we must further promote the implementation of this One Health concept.



II Zoonotic Diseases

More than 200 Types of Zoonotic Diseases

WHO defines zoonosis as “diseases and infections that are naturally transmitted between vertebrate animals and humans.” Based on the new term “zoonosis” coined by the German cellular pathologist Virchow in the 1860s, the term “zoonotic disease” or “infection transmitted by an animal.”

It is said that the WHO has confirmed more than 200 types of zoonotic diseases. The pathogens include viruses, bacteria, and parasites and are largely divided into those that are spread with “direct contact” from animal bites or scratches and spread with “indirect contact” from mosquitos and ticks, etc. Infections spread with direct contact include rabies (virus) and roundworm infection (parasites), etc. Those that are spread with indirect contact include diseases that can be transmitted from animals via mosquitos or ticks, infectious diseases transmitted through water or soil contaminated by germs discharged from animals, and infections that can be transmitted by eating contaminated animal meat. Indirectly spread infections include norovirus infections (virus), salmonella infections (bacteria), and anisakiasis (parasites). Four infections that have viruses as pathogens are introduced in detail on the following pages.

Novel Coronavirus (COVID-19)

Infections transmitted from bats through wildlife?

In December 2019, a cause-unknown pneumonia emerged in Wuhan, China, and in January 2020, a new coronavirus was found from that patient. Infections from this coronavirus spread around the world and continue to rage. Many types of coronavirus have been discovered. Previous coronavirus outbreaks include the severe acute respiratory syndrome (SARS) (emerged in November 2002), and the “Middle East respiratory syndrome (MERS) (emerged in December 2012).

The main symptoms of this novel coronavirus (COVID-19) include fever, cough, fatigue, loss of taste, pneumonia, and difficulty breathing. The infection is transmitted by droplet infection, from infected person’s sneeze or cough, by direct contact with an infected person, and by contact with contaminated substances, such as the infected person’s saliva. It is thought that the virus was transmitted from bats to humans via an intermediary host (thought to be a wild animal such as a pangolin). There are reports that COVID-19 can infect dogs and cats, so further verification and research will be required to label COVID-19 a zoonotic disease.

Severe Fever with Thrombocytopenia Syndrome (SFTS)

Transmitted through bites from ticks or infected stray cats

"Severe Fever with Thrombocytopenia Syndrome (SFTS)" is a zoonotic disease transmitted by an SFTS virus first identified in China in 2011. The first case of SFTS infection in Japan was reported in January 2013. Since then, it has spread mostly in Western Japan, and by May 27, 2020, 517 infections had been reported.

Many wild animals and blood-sucking ticks carry the SFTS virus. While humans are infected mainly by ticks carrying the SFTS virus, there have been reports of people becoming infected after being bitten by a stray cat and veterinarians becoming infected after examining an infected cat. (* See Fig. 1.)

After an incubation period of six to 14 days, the infected individual may experience a fever, vomiting, diarrhea, headaches, muscle aches, and neurosis. In serious cases, small injuries may not stop bleeding, or multiple organ failure could occur and result in death. Elderly individuals are more likely to experience serious symptoms. The only way to prevent infection is to not be bitten by a tick. Infections may emerge year-round, but special caution is required from the spring to autumn when ticks are especially active. It is important to cover up all skin by wearing long sleeves, long pants, and shoes that completely cover the feet when entering grassy areas or thickets.

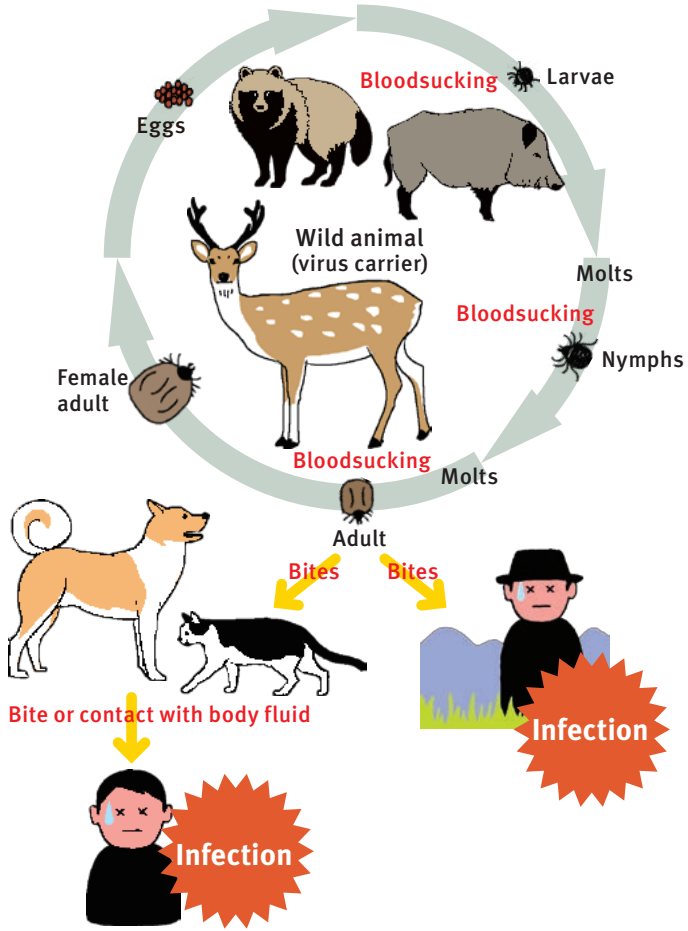


Fig. 1 SFTS virus infection by tick

New Strains of Influenza

New strains emerging from mutation and mixing of avian and swine viruses

The influenza virus is largely categorized as Type A, Type B, or Type C. The type that humans catch in the winter is called “seasonal flu,” and is caused mainly by Type A or Type B viruses. Among these different types, the Type A virus is a zoonotic disease virus distributed in humans and other animals. It is categorized into 144 types according to the combination of two types of protein: NA (9 types) and HA (16 types).

Normally, viruses are spread between the same animal species, and it is rare for humans to be infected by another animal species’ virus. This is called the “species barrier.” However, when viral genes from birds that have not infected humans mutate or viral genes from different animal species mix, new viruses that cross this species barrier and infect humans can appear. These are the “new strains of influenza,” which emerge at a cycle of approximately ten to forty years. Most humans do not have immunity to the virus, so anyone could become infected and cause a pandemic. (* See Fig. 2.)

The symptoms and prevention methods are the same as seasonal flu. An individual experiencing fever, cough, fatigue, runny nose, or sore throat, etc., should wear a mask, wash hands well, follow proper coughing etiquette, and avoid crowds.

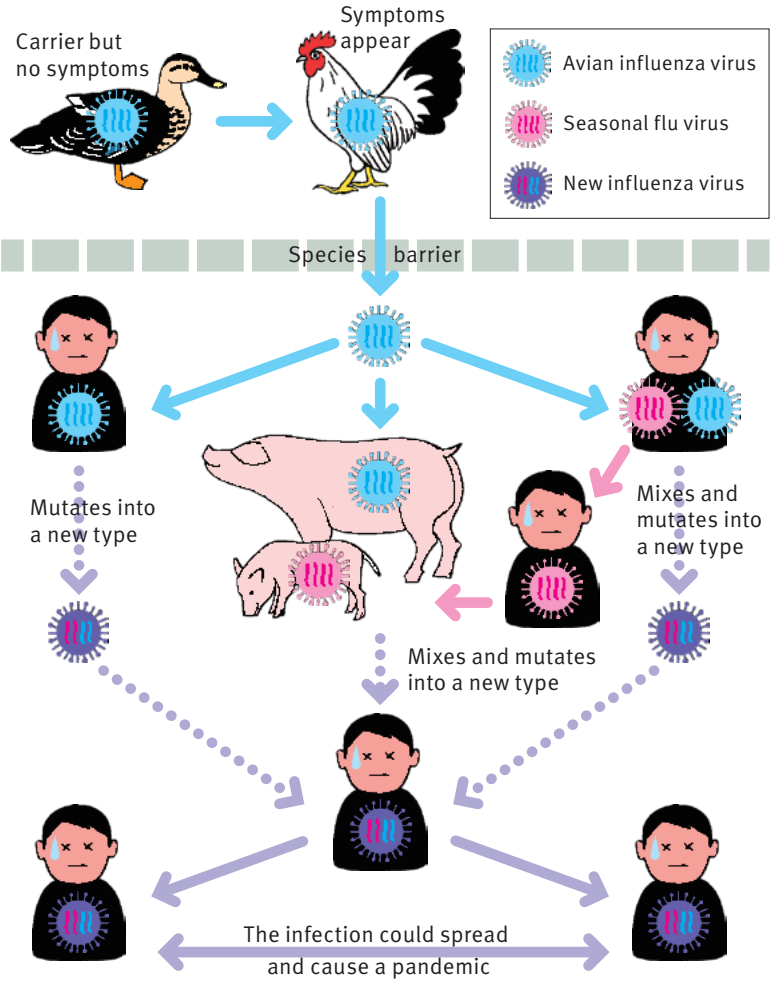


Fig. 2 Avian influenza and new strains of influenza

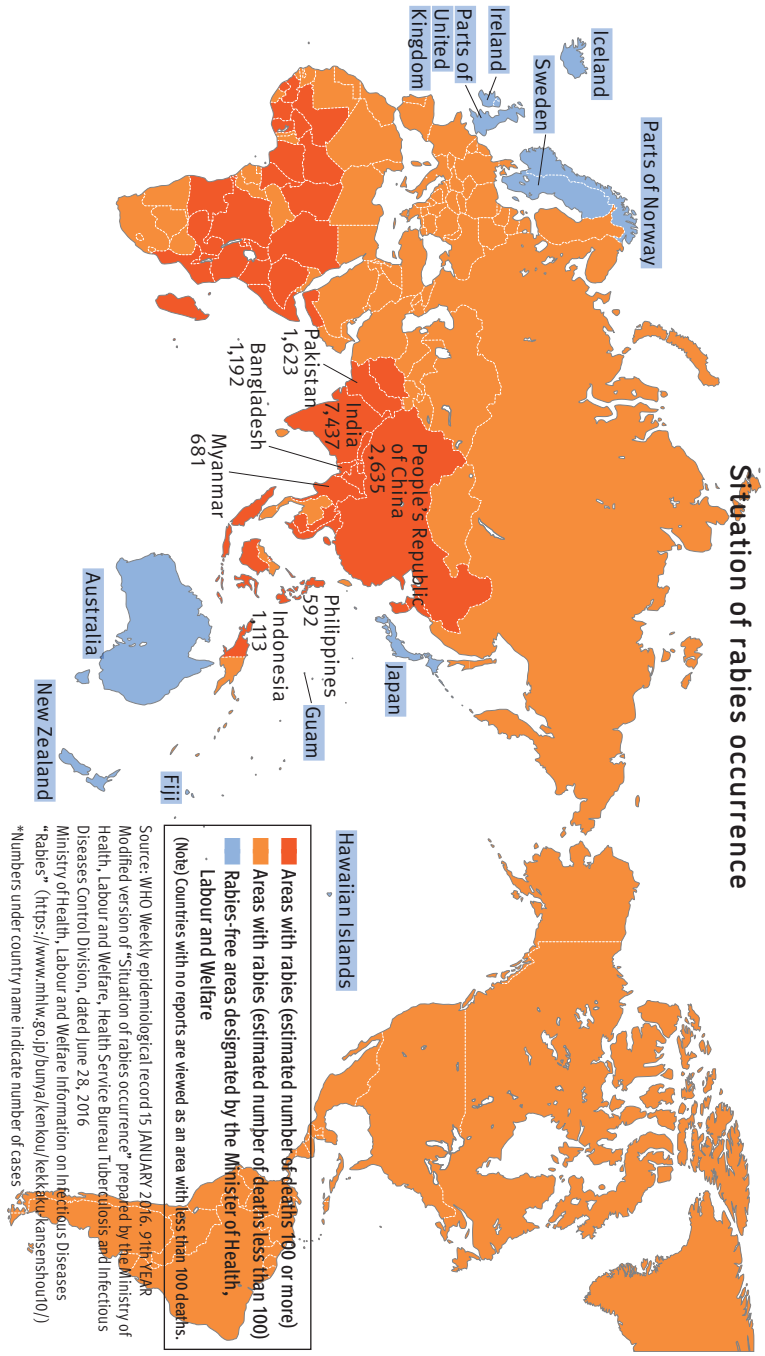
Rabies

Enters the human body through a bite from an infected animal

Rabies is a zoonotic disease that infects all mammals, including humans. There are records of outbreaks more than 4,000 years ago. Humans are infected when bitten by an animal infected with rabies and the virus enters through the wound. After an incubation period of one to three months, the infected person may experience neurological symptoms such as paralysis or hallucinations and will slip into a coma. There is no cure for the disease, and almost all infected individuals will die.

In Japan, many people used to die from rabies. However, the disease was successfully eradicated with the Rabies Prevention Act enacted in 1950, and there have been no cases since 1957. Overseas, however, there are more than 50,000 deaths a year, of which more than 30,000 cases occur in Asia.

Today with active international exchange, we cannot say that there is no possibility that rabies will enter Japan. In Taiwan, where there had been no cases for almost 50 years, rabies was found in wild animals in 2013. It is important to ensure that dogs are registered and vaccinated against rabies, as required by the Rabies Prevention Act so that even if rabies should enter Japan, the spread can be prevented.



Main Zoonotic Diseases Emerging after 20th Century

Year of occurrence	Infection name	Pathogens	Initial country	Infection source, etc. Related animals
1918	Spanish flu	Type A (H1N1 subtype) virus	Unknown	Wild birds, etc.
1937	West Nile fever	West Nile virus	Uganda	Wild birds, horses, mosquitos
1956	Asian flu	Type A (H2N2 subtype) virus	China	Wild birds, etc.
1976	Ebola hemorrhagic fever	Ebola virus	Zaire	Bats
1986	Bovine spongiform encephalopathy (BSE)	Abnormal prions	United Kingdom	Cows
1992	Cat scratch disease	Bartonella henselae bacteria	United States	Cats
1996	Lyssavirus infection	Lyssavirus	Australia	Bats
1997	Nipah virus infection	Nipah virus	Malaysia	Bats, swine, mosquitos
1997	New Strains of Influenza	Type A (H5N1 subtype) virus	Hong Kong	Wild birds, poultry
2003	Severe acute respiratory syndrome (SARS)	SARS coronavirus	China	Civets, bats
2012	Middle East respiratory syndrome (MERS)	MERS coronavirus	Middle East	Dromedary
2013	Severe fever with thrombocytopenia syndrome (SFTS)	SFTS virus	China	Wild animals, cats, ticks
2019	Novel Coronavirus (COVID-19)	SARS coronavirus 2	China	Bats (?) , Wild animals (?)

IV

Implementing One Health in Model Regions

Spring Breeze
Kuon Ofuchi

Born in 1987, Resides in Sue Town

'When I was nine years old, I made a woodblock print of a lion whose mane was blowing in the wind. I am touched by animals, big and small, doing their best to stay alive, and try to encapsulate them in my drawings. "Spring Breeze" is my second poster for the Painting Exhibit. The wolf, cat, and parakeet characters were born from the theme, "Crossing barriers." Here they are walking merrily on a nice warm spring day. Butterflies flutter by, inviting them to "Come to the exhibit together."'

One Health Creates

Having fun while promoting easy activities to deepen understanding

The Chikugo Regional Park, which bridges over Chikugo City and Miyama City, has been designated as a model area for implementing One Health. Various activities have been started to promote the program. In April 2020, "One Health Creates" (OHC) was established, using Chikugo Regional Park as its base. OHC promotes and raises awareness of the One Health initiative and carries out projects related to community building based on One Health.

OHC's activities include planning, proposing, and conducting activities to promote One Health's philosophy to many people in a specific and easy to understand manner. The diverse activities include events related to One Health, commissioned by related organizations, coordinating roles with groups that are likely to be involved with One Health, and training personnel for promoting One Health.

OHC also promotes activities that allow participants to learn while having fun, such as bus tours based on One Health's philosophy, sessions to learn about the relation of animals on human health, and the associated relation of food education and environment.

One Health Car

The “One Health Car” is used to actively promote the philosophy of One Health. It travels to Chikugo Regional Park and throughout the prefecture, distributing educational pamphlets and showing videos to bring One Health to the community. The One Health Car will also contribute to food education by promoting and selling Fukuoka-made products, including “Hakata Jidori,” a local pedigree chicken, Yame-cha tea, and milk.

Haze Wax Candles

There are many Japanese wax trees (sumac trees) in Fukuoka Prefecture, and especially the Chikugo Plains. In the late autumn, the wax tree berries are harvested, ground into a powder, steamed, and then pressed to create a raw wax. This raw wax is called “haze wax” or “sumac wax,” and is used as a raw ingredient for candles, etc.

The sumac wax production process was passed down to the Satsuma Domain in the early Edo period. By the mid-Edo period, each domain in Western Japan encouraged the production to supplement the clan’s finances. The processing of white wax refined from sumac wax was very popular especially in Mitsuhashi Village, Yamato-Gun (present-day Mitsuhashi-machi, Yanagawa City), home of the Yanagawa Domain.

Haze wax candles, or Japanese candles, have been gaining popularity in recent years as they are wind-resistant, generate little soot, and have a soothing, gentle flame.

People have created a system for using nature and living in the community, as seen with haze wax candle manufacture. To ensure that “life” can continue for many years and many generations, people continuously maintain forests and rice paddies and take care not to use the community’s valuable resources in excess. This spirit of maintaining a relationship with nature is an important pillar of One Health.

Sendan

Furniture made of sendan (chinaberry tree), a fast-growing tree with hard wood, has gained popularity in recent years. Okawa City, Japan’s largest furniture producer, has collaborated with Forestry Cooperatives in the neighboring areas to design a system that will cover all aspects from production, finishing, as well as sales and tree planting and Mokuiku (learning from wood). These activities help shorten wood mileage and the sustainable succession of the local forest and wood industries, and are a practical example of environmental protection and nature circulation, which are part of the One Health philosophy.

One Health Festival 2020

The “One Health Festival 2020”, organized by Fukuoka Prefecture, was held on October 4, 2020, at the Kyushu Geibun-Kan in Chikugo Regional Park. The diverse programs included online lectures, an exhibit of animal illustrations, and reports on animal therapy.

Pet Sketch Contest Exhibition & “I Drew an Animal!” Exhibition of Illustrations

Many illustrations of animals gathered at the Kyushu Geibun-Kan Entrance Gallery. Select illustrations from “Pet Sketch Contest,” held for kindergarten and elementary school-age children, included 49 works of art showing the children’s daily interactions with animals. The “I Drew an Animal!” Exhibition of Illustrations, held at the same time, filled the venue with vitality through paintings and illustrations with animal motifs.

Drawing animals entails looking at life. Our various thoughts toward animals, including compassion, longing, sympathy, reverence, and sense of distance, also lead to “Creating a symbiotic relationship between humans and animals,” one of the One Health pillars.

Animal Therapy “Doggy, Can You Listen to Me?”

Animal therapy sessions “Doggy, Can You Listen to Me?”, during which children read books to therapy dogs, is an initiative that is in line with “Creating a symbiotic relationship between humans and animals.” Four children in speech therapy tried their best to overcome the challenges they had in reading aloud.

With the support of trained therapy dog handlers, the four children made pairs with the dogs and took a walk around Chikugo Regional Park. They returned to the Kyushu Geibun-Kan Annex, where they read prepared books to the dogs. It was impressive to see how the children and dogs enjoyed each other and accepted each other’s presence. The families who participated said that effect lingered on even after the sessions were over.

Four elements were required to realize this program: (1) A group that could dispatch therapy dogs and handlers, (2) A place where the animals and children could meet safely, (3) Families that could watch over their children as they prepared for the event, (4) Participation of experts to observe and evaluate the exchange on the day of the program. This collaboration went smoothly by positioning this program as a part of One Health.

Column

Learning the Richness of Communication through Interaction with Animals

Ako Imamura,
Director, NPO Kotori (Speech-and-Relationship Association)

Rehabilitation refers to providing developmental support for children with disabilities. Each child's development needs are reviewed, regardless of the type or degree of disability. Various rehabilitation types are then practiced to build a relationship with people around the child and support their self-discipline and self-reliance.

Communication that encourages mutual understanding and respect is required to build a favorable relationship between the children and the people around them. However, we often feel difficulty in developing this communication when providing daily developmental support. It is challenging to maintain the distance required for smooth communication, and often we cannot attain sufficient maai (inter-spacial distance). Learning the sense of distance and maai that occurs in a relationship with another person is always an essential issue for the quality of rehabilitation.

When I see and hear reports about therapy dog activities in Japan and overseas, I am impressed by these dogs' skill to communicate with people from different backgrounds in an amicable manner. Dogs appear to have the most basic communication attitudes, such as watching and waiting for the individual, understanding their intentions, and listening to what they want to convey.

At the "One Health Festival 2020," an animal therapy program was held as an example of creating good relationships between

humans and animals. With the support of the handlers, the children and therapy dogs developed fun communication and brought smiles to the many people who were involved.

The behavior of the therapy dog when interacting with people teaches us about the richness of communication. There are potential expectations for these interactions with animals, but I

expect that the need for interaction with animals in rehabilitation will increase as the One Health Action spreads.

There are many issues when a therapy dog and its handler participate in rehabilitation. However, as we look into how we can realize these sessions, we are bound to meet many people who have various knowledge and skills. In addition, if we include this activity as part of the One Health action, which aims to "Create a symbiotic relationship between humans and animals," we will find that interaction with animals is valuable as a rich communication activity for many people, rather than an activity limited to certain people.

I hope that I will continue to make friends with whom I can talk through the One Health activities.

V

The Future of One Health

Asian Center for Disease Control (Provisional name)

Center for research and personnel development to prevent the entry of new infectious diseases

Fukuoka Prefecture is positioned as a gateway to Asia due to its geographical and historical background near the Korean Peninsula and Mainland China. There is a lot of traffic of people and goods to and from Asian countries, which means a high risk of new infectious diseases and pathogens being introduced.

Fukuoka Prefecture has several universities with medical schools, including Kyushu University. Yamaguchi University in neighboring Yamaguchi Prefecture has a Joint Faculty of Veterinary Medicine with Kagoshima University. Consequently, many people involved with medicine and veterinary medicine gather in this area.

Amid this situation, we must respond to new zoonotic diseases that cross country borders and strengthen control at borders to prevent the entry of such infectious diseases. It is strongly desired that the “Asian Center for Disease Control (provisional name)” will be established as a base to research medicine and veterinary medicine and train personnel in cooperation with Asian countries.

As COVID-19 continues to spread, Governor Ogawa of Fukuoka Prefecture has asked the government to coordinate this Center and has expressed his intentions to discuss the establishment of the Center with Kyushu and Yamaguchi Prefectures.

アジアの防疫拠点 知事提起へ

医療、獣医療を一体化 福岡

野生動物由来の可能性が指摘される新型コロナウイルスの感染拡大を踏まえ、福岡県の小川洋知事は4日、アジア各国と連携した医療と獣医療の一体的な研究拠点「アジア防疫センター」（仮称）の整備に向けた議論を進める考えを表明した。九州地方知事会で問題提起し、整備と誘致を目指して国への働き掛けを強めるという。同日の県議会定例会で自民党県議団の代表質問に答えた。

新型肺炎の感染拡大を受け、小川氏は「人と動物の両方で感染症対策を講じるワンヘルスの取り組みの重要性を再確認した」と強調。世界医師会と世界獣医師会が2016年11月、北九州市で合同国際会議を開き、ワンヘルスの実践に向けた「福岡宣言」を採択していることを踏まえ、「研究拠点整備に向けて『私自身が先頭に立つ』と決意を述べた。

研究拠点を巡っては、九州各県とアジア各国が広域的に連携する体制整備を求め、福岡県議や民間企業の有志らでつくる「九州の自立を考える会」（会長・蔵内勇夫福岡県議）が14年10月、県に提言。県も協議会を設け検討し、17年度以降、国に設置を要望している。（豊福幸子）

Article from the morning edition of the Nishinippon Shimbun dated March 5, 2020

アジア防疫拠点設置

九州各県などと協議

小川知事が表明

新型コロナウイルスの感染拡大を踏まえ、福岡県の小川洋知事は11日、アジア各国と連携した医療と獣医療の一体的な研究拠点「アジア防疫センター」（仮称）の設置に向け、九州・山口各県と協議を始める意向を示した。同日の県議会定例会で自民党県議団の代表質問に答えた。

小川氏は5月の九州地方知事会で、九州・山口が一体となって同センター設置を議論するよう提案したと報告。「先頭に立って設置を国に働きかける」と述べた。年度内に県内開催を予定する、人と動物の双方で感染症対策を講じる「ワンヘルス」をテーマにした国際フォーラムなどを通じ、県内誘致の機運醸成を図る考えも示した。

感染症対策の研究所設置を巡っては、6月8日の参院本会議で安倍晋三首相が「組織的強化を図ることは重要な視点。人獣共通感染症の対応についても危機管理体制の不断の見直しを進め、対応力を一層高めていく」と答弁している。（豊福幸子）

Article from the morning edition of the Nishinippon Shimbun dated June 12, 2020

Fukuoka “One Health” International Forum

Organizing from 2020
Delivering One Health issues to the world

In 2020, Fukuoka Prefecture started organizing the “One Health International Forum”, as a venue for professionals in each field to share awareness of issues related to One Health, including zoonotic diseases, and deliver them to the world.

The 2020 Forum was held on January 30, 2021, with a large portion held as an online session from a dedicated website to prevent the spread of COVID-19. Only persons involved with a few select programs gathered at the Fukuoka International Congress Center.

The main program featured lectures by researchers and experts on infectious diseases, such as COVID-19, and subcommittee sessions.

English interpretation was provided for the website program for participants around the world.

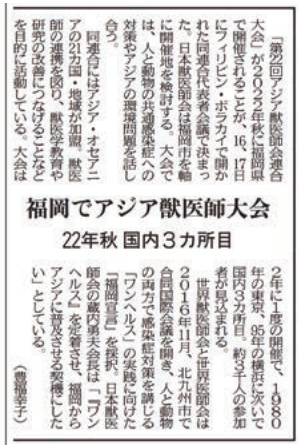
“One Health” International Forum website
https://one-health-fukuoka.net/index.html

22nd FAVA Congress 2022

Coming to Fukuoka City in November 2022
Approximately 3000 people from 21 countries and regions are expected to participate

The “Federation of Asian Veterinary Associations (FAVA),” with members from 21 countries and regions in Asia and Oceana, conducts various activities to promote collaboration among veterinarians and the development of veterinary medicine. One of the largest and most important activities in the Asian region is the biennial FAVA Congress, where professionals from member countries and regions gather. The 22nd Congress will be held in Fukuoka in November 2022. It will be Japan's third time to host, following Tokyo (1980) and Yokohama (1995). About 3,000 people are expected to participate.

One Health will be a priority theme at this Congress, with discussions and studies on zoonosis control in Asia, management of antibacterial medicines, livestock hygiene, food safety, and environmental conservation.



「第20回アジア獣医師会連合大会」が2022年秋に福岡県で開催されることが、16、17日にフィリピン・ボラカイで開かれた同連合代表者会議で決まった。日本獣医師会は福岡市を軸に開催地を検討する。大会では、人と動物の共通感染症への対策やアジアの環境問題を話し合う。

同連合にはアジア・オセアニアの21カ国・地域が加盟。獣医師の連携を図り、獣医学教育や研究の改善につなげることなどを目的に活動している。大会は2年に1度の開催で、1980年の東京、85年の横浜に次いで国内3カ所目。約3千人の参加者が見込まれる。

世界獣医師会と世界医師会は2016年11月、北九州市で合同国際会議を開き、人と動物の両方で感染症対策を講じる「ワンヘルス」の実践に向けた「福岡宣言」を採択。日本獣医師会の藏内勇夫会長は「ワンヘルス」を定着させ、福岡からアジアに普及させる契機にしたい」としている。（豊福亨子）

福岡でアジア獣医師大会
22年秋 国内3カ所目

Article from the morning edition of the Nishinippon Shimbun dated October 18, 2019

Fukuoka Prefecture Basic Ordinance for the Promotion of One Health

Prefecture residents' opinions consolidated by Fukuoka Prefectural Assembly to enact the world's first ordinance

On June 24, 2020, as part of the "Resolution on Strengthening Abilities to Respond to Zoonotic Diseases", the Fukuoka Prefectural Assembly decided to address the creation of a system to practice One Health, including the enactment of an Ordinance. To enable Fukuoka Prefecture to lead the One Health Action promotion, the Fukuoka Prefectural Assembly aimed to enact the "Fukuoka Prefecture Ordinance Related to the Promotion of One Health and Zoonotic Disease Response" (provisional name). A draft was presented on the Prefecture's official website in November, and citizens were asked to send in their opinions. The "Fukuoka Prefecture Basic Ordinance for the Promotion of One Health" was enacted in December, taking into account the received opinions.

This Ordinance follows the philosophy of One Health. It stipulates the role of the prefecture, municipalities, doctors and veterinarians, medical organizations, research institutions, etc., the basic policy for practicing One Health, and information related to the forming of bases for practicing One Health.

This One Health ordinance is the first of its kind in Japan and the world.

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Zoonotic diseases such as the Middle East respiratory syndrome (MERS), severe acute respiratory syndrome (SARS), and novel coronavirus (COVID-19) account for approximately 60% of all infectious diseases in humans. Many are diseases for which humans have no immunity, and for which treatment methods have not yet been established. Many emerging infectious diseases are zoonotic diseases, which sometimes spread explosively, causing a pandemic and bringing serious harm to humans.

Zoonotic diseases are thought to result from repeated human activities that affect the global ecosystem, such as deforestation caused by agriculture and urbanization. These activities bring about climate change, which causes ecosystems to collapse and the zones in which humans and wildlife can survive to change and become closer. The zoonotic diseases spread to humans who do not have the resistance to infectious diseases animals carry.

The "Berlin Memorandum" (1993), issued by the World Veterinary Association (WVA) to promote the prevention of zoonotic diseases, were the starting point for the One Health action. In 2004, the World Health Organization (WHO) and the World Organisation for Animal Health (OIE) issued the "Manhattan Principles" related to One Health. The Principles state that "A strategic framework for controlling the risk of infectious diseases is needed, based on the fact that animals, humans and their environment are interconnected in ecosystems, and human health can be maintained in biodiversity." In 2012, the World Veterinary Association (WVA) and the World Medical Association (WMA) signed a memorandum for collaboration based on One Health's philosophy. Since then, the One Health initiatives have spread around the world.

Under these circumstances, the Fukuoka Memorandum, which serves as the cornerstone for shifting from the philosophy to the practice of One Health, was adopted and announced at the Global Conference on One Health held by the World Veterinary Medical Association and the World Medical Association in Kitakyushu City, Japan, in 2016.

Today, zoonotic diseases are frequently emerging worldwide,

threatening humans and animals' health and degrading our ecosystems. Implementation of One Health is an urgent issue, and our prefecture, as the home of the Fukuoka Memorandum, must take the lead in promoting the initiative.

Therefore, this Ordinance has been enacted to build a system for implementing One Health, protect the lives and health of our prefecture residents and the animals they love, maintain the health of our environment as one, and pass down these activities to future generations.

[Objective]

Article 1: This Ordinance stipulates the necessary matters related to the basic principles, basic policy, and measures required for the implementation of One Health to promote actions and activities based on the concept of One Health and address issues related to zoonotic diseases in Fukuoka Prefecture.

[Definition]

Article 2: The term "One Health" in this Ordinance refers to the concept or principle that the health of humans and animals and environmental health is a single entity, or in other words, "Health is One."

2. The term "Health" in this Ordinance refers to a state of complete physical, mental and social well-being.
3. The term "zoonosis / zoonotic diseases" in this Ordinance refers to diseases or infectious diseases common to humans and animals that are transmitted from animals carrying the pathogens to humans, or infected by pathogens carried by both humans and animals.

[Basic Principles]

Article 3: Humans, animals and the environment surrounding them are all interrelated in the ecosystem and influence each other. Therefore, all people shall act to protect them with the One Health initiative and pass them down to future generations.

2. When acting under the Basic Principles outlined in the preceding clause, all people's feelings and values regarding their state of health shall be respected, and voluntary efforts shall be supported.

[Role of the Prefecture]

Article 4: In accordance with the Basic Principles, with concern to the implementation of One Health, the Prefecture shall carry out comprehensive planning of measures to be implemented in the Prefecture, implement measures pertaining to the affairs under the jurisdiction of the Prefecture, and coordinate with measures pertaining to the affairs under the jurisdiction of municipalities.

2. To promote the understanding of One Health among prefecture residents, the Prefecture shall promote awareness-raising among prefecture residents and businesses and provide education for children and students.
3. The Prefecture shall train and support citizen groups and volunteers, etc., that are working to promote or practice the philosophy of One Health.

[Role of Municipalities]

Article 5: In accordance with the Basic Principles, municipalities shall endeavor to actively participate in activities to promote One Health in the Prefecture by cooperating with the Prefecture's initiatives outlined in each clause of Article 4, or by promoting measures with concern to the implementation of One Health pertaining to the affairs under their jurisdiction.

[Role of Physicians, Veterinarians, and Medical Organizations]

Article 6: In accordance with the Basic Principles, physicians and veterinarians shall promote the exchange of information on the promotion of One Health through the activities of medical organizations, etc. They shall also endeavor to cooperate with the Prefecture's measures and initiatives based on this Ordinance, such as collaborating to enhance and strengthen a research system and medical education and veterinary education related to One Health.

2. In accordance with the Basic Principles, physicians and veterinarians shall endeavor to voluntarily participate in the practice of One Health by promoting mutual exchange through the activities of medical organizations, etc., and by cooperating with addressing various issues for the promotion of One Health.

[Role of Researchers and Research Institutions, etc.]

Article 7: Researchers and research institutions, etc., in the fields of medicine, veterinary medicine, environmental science, and in the academic fields that are involved in other issues related to the promotion of One Health shall endeavor to promote their research activities in accordance with or in consideration of the Basic Principles. They shall endeavor to cooperate and share information with the Prefecture or the One Health core centers established by the Prefecture following the provisions of Article 14 concerning research and findings that are expected to contribute to the promotion of One Health.

[Role of One Health-related Organizations]

Article 8: In accordance with the Basic Principles, organizations conducting activities related to One Health shall cooperate with the initiatives of the Prefecture as outlined in each clause of Article 4, and the initiatives of the municipalities as outlined in Article 5, or shall endeavor to take the lead in One Health promotion activities under the ingenuity of those entities.

[Basic Policy for Implementation of One Health]

Article 9: In accordance with the Basic Principles, when the Prefecture, municipalities, people or organizations stipulated in Article 6 to Article 8, prefecture residents, and businesses engage in the practice of One Health, concerning issues listed in the following clauses, they shall endeavor to act or conduct activities under the basic policies outlined in each clause.

2. Zoonosis control shall be promoted to protect the lives, health, and other human rights of prefecture residents from zoonotic diseases. Measures shall be promoted by researching and implementing measures related to the source of infection, infection route and host, based on expert and scientific knowledge and evidence in the fields of humans, animals and the environment. In addition, action shall be taken to deepen the understanding of prefecture residents regarding zoonotic diseases and enable them to take appropriate measures.
3. Antimicrobial-resistant bacteria control: Given that antimicrobial-resistant bacteria are increasing due to the overuse of antimicrobial medicine, by that posing a serious threat to human and animal health across national borders, measures shall be promoted for the appropriate use of drugs, etc., under international coordination and cooperation led by the World Health Organization (WHO).
4. Human activity, including excessive deforestation and mass consumption of fossil fuels, has resulted in climate change and advanced urbanization, etc. This activity has degraded ecosystems and created opportunities for humans to encounter microorganisms, such as viruses, found in forests. Therefore, environmental protection shall be promoted with the understanding that the conservation of a balanced natural environment and the maintenance of biological segregation are essential for maintaining human and animal health and preserving our living environment.
5. The creation of a symbiotic relationship between humans and animals shall be promoted based on the viewpoints listed in the following sections.

a. In today's society, pets are a part of our families and help promote mental health and improve quality of life. Pets should be included widely in various fields such as medicine, welfare, and education, etc. A better relationship should also be maintained between humans and pets by preventing harm to pets from abuse, inappropriate care and health management, and preventing damage to the surrounding living environment.
b. In preparation for situations where people and pets' rescue is necessary, such as in the event of a disaster, a system shall be established to enable the rescue of humans incorporating rescue dogs and the evacuation and rescue of pets, etc. swiftly.
c. For the coexistence of humans and wildlife, it is essential to understand the habitat and behavior of wildlife and ensure proper biological segregation.

6. Health shall be promoted to encourage the maintenance of a living environment in which all people and animals can live in good physical, mental and social conditions, and in which anyone can enjoy various forms of sports and can live proactively in a relationship with a balanced natural environment and diverse plants and animals.
7. To create better relationships between the environment, humans, and animals, activities shall be promoted under the basis that human

health is maintained by consuming healthy livestock and other safe agricultural, forestry, and marine products produced in a healthy environment and the following viewpoints, etc.

a. Utilize bacteria having a beneficial function for human health
b. Deepen the connection between producer and consumer and promote local production for local consumption (refers to local consumption or use of products produced in the region) that contributes to promoting understanding of the importance of food and the role and significance of the agriculture, forestry, and fisheries industries.
c. Promote "food education" so that consumers learn about "food" and the ability to select "food" and lead healthy lives.
d. Reduce the impact of production and consumption on the environment.

[Promoting understanding among prefecture residents and businesses]

Article 10: To deepen understanding of One Health among prefecture residents and businesses and promote actions and activities in line with the Basic Principles, the Governor will carry out repeated and continued awareness-promoting activities for the prefecture residents and businesses now and in the future.

2. The Governor shall promote One Health education by collaborating with the Board of Education and related organizations such as private schools. Activities shall be adjusted to the physical and mental development stage of the children and students. They will include experience-based activities, such as outdoor activities, and classes using learning materials created based on the results of implemented cases and designed to foster the ability to think about and understand the One Health action.
3. When conducting awareness promotion and education based on the provisions in the preceding two clauses, the Governor shall prepare model districts where children or students can learn or experience actual actions, activities, and environmental practices that comply with the Basic Policy. The Board of Education shall cooperate with the organizations, etc., provided in Article 6 and Article 8 to provide a model-like education related to One Health to children and students at designated schools. The understanding of prefecture residents, etc., shall be promoted through these activities.

[Enactment of Prefecture Action Plan]

Article 11: The Governor shall embody the Basic Policy outlined in Article 9 and shall set and announce an action plan (hereafter, "Prefecture Action Plan") for the Prefecture's measures based on the Basic Policy.

[Disclosure of Implementation State]

Article 12: Every fiscal year, the Governor shall disclose the situation of measures implemented by the Prefecture based on the Prefecture Action Plan.

[Development of Promotion System]

Article 13: Implementation of One Health encompasses a wide range of fields. All prefecture organizations must enact and implement the Prefecture Action Plan in a unified manner. Based on this, the Governor shall endeavor to develop a system that can cross-sectionally oversee and handle the affairs of the prefectural government's departments and bureaus involved with One Health.

[Formation of One Health Core Center, etc.]

Article 14: As stipulated in the Prefecture Action Plan, the Governor shall promote the establishment of an organizational structure that will act as a regional core center for practicing One Health following the Basic Policy. This core center shall share and handle affairs related to the health of humans and all animals and environmental conservation and shall conduct testing, analysis and measurement, and research and study related to these matters.

2. In cooperation with medical organizations, research institutions, and the One Health-related organizations listed in Article 8, the Governor shall train human resources to conduct the affairs and testing, etc., listed in the preceding clause at the established center following the provisions in the preceding clause.
3. The Governor shall endeavor to promote comprehensive and creative One Health initiatives by coordinating the organizational system developed following the provisions of Clause (1) with the prefectural government's departments and bureaus and local agencies, as well as coordinating with the businesses and research institutions, etc., listed in Article 7

[Forum for the Discussion and Study Regarding the Promotion of One Health]

Article 15: To smoothly promote the One Health initiatives in this prefecture based on this Ordinance, the Governor shall establish a forum for continuous discussion and study by the Prefecture, relevant national organizations, municipalities, and the parties stipulated in Articles 6 and 7, as separately specified.

[Registration of Business Promoting One Health, etc.]

Article 16: The Governor shall register businesses that support the intent of this Ordinance and declare their intention to promote One Health. The businesses' initiatives to implement and incorporate One Health in their business shall be supported by providing the registered businesses with information on the Prefecture's measures, and initiatives of related parties and other businesses concerning One Health.

[Support of Organizations Practicing One Health]

Article 17: The Prefecture may provide the necessary support for the activities of organizations, etc., that are engaged in activities related to the practice of One Health and that are recognized to be able to participate in the implementation of the Prefecture Action Plan under an appropriate division of roles with the Prefecture and municipalities.

[Strengthening Response Capability for Crisis Related to One Health]

Article 18: When developing the system according to the provisions of Articles 13 and 14, the Governor shall endeavor to strengthen the systematic response to zoonotic diseases and other One Health crises. This shall be accomplished by using flexible and diverse personnel management methods such as short-term personnel exchanges within and outside the prefecture, active utilization of external persons with expertise, and outsourcing of work.

[Formation of Base for Zoonosis Control, etc.]

Article 19: To enhance the regional and comprehensive abilities to respond to zoonotic diseases based on the intent of the provisions of Article 9-2, the Governor shall endeavor to collaborate with local governments, medical institutions, universities, and research institutions in Asian countries and each prefecture in Kyushu to form a center that leads the way in comprehensive zoonosis control. This will be realized by integrating the functions of the national government, prefecture, and the private sector related to prevention, communicable disease control, information dissemination, and research on zoonotic diseases, as well as the functions related to the development of human resources for these efforts.

2. When forming the center outlined in the preceding clause, the Governor shall endeavor, from the study stages, to promote the understanding of local residents and other concerned parties by providing information on the quarantine-related facilities to be invited or established, their operation, research, etc., and by explaining and exchanging opinions with them.

Bylaws

[Date of Enactment]

1. This Ordinance shall be enacted from the date of promulgation.

[Review of this Ordinance]

2. This Ordinance shall be appropriately reviewed regularly, considering the status of its operation, the natural and social conditions related to One Health, and the status of efforts for One Health in Japan and the world.

[Review]

3. Concerning the zoonosis control outlined in Article 9-2, following the intent of this Ordinance, the situation of outbreaks of zoonotic diseases in Japan and necessary countermeasures shall be reviewed. Based on the results, necessary measures, including the enactment of an ordinance, shall be taken.

column

Three Challenges and Goals of One Health

Kazuhiko Imamura,
Executive Managing Director, Fukuoka Veterinary Medical Association

One Health is based on the principle that "the health of humans and animals (livestock, pets, wildlife) is closely related, and supported by the natural environment." It poses the following three challenges.

(1) Zoonotic Diseases

In the past, human health (medicine) and animal health (veterinary medicine) were thought to be independent of each other. Little attention was paid to the health of animals, especially wildlife. However, diseases such as the novel coronavirus, severe acute respiratory syndrome (SARS), severe fever with thrombocytopenia syndrome (SFTS), rabies, and new influenza strains have all emerged due to a connection between humans and livestock, pets, and wildlife. Infectious diseases cannot be controlled by focusing only on people. We must look at and diagnose humans, animals, the environment, and pathogens in a comprehensive manner. This is precisely the One Health approach.

The possibility of new infectious diseases emerging and spreading worldwide will increase as the world population increases, the movement of people and goods becomes faster and more widespread, and environmental destruction continues. Concerning infectious diseases, it will become increasingly important for people in many fields to collaborate from the perspective of One Health, including routine monitoring and prediction, prevention at borders in the event of an outbreak, and swift diagnosis, suppression, and control.

(2) Antimicrobial-resistant bacteria

Health is made up of many components, not just infection control. For example, in humans, infections caused by antimicrobial resistant bacteria such as methicillin-resistant Staphylococcus aureus (MRSA) and vancomycin-resistant enterococcus (VRE) are spreading and posing a problem in the medical field. One method to solve this problem is through the proper and prudent use of veterinary antimicrobials to treat livestock, antimicrobial feed additives for effective use of nutrients in feed, and the proper use of antibiotics for pets and pesticides.

(3) Preservation of the natural environment

The health of humans and animals is supported by the natural environment. It is important to preserve the earth and its natural environment for our own health. We have inherited the earth from our ancestors, but we also owe it to the next generation of descendants. For people and animals to continue to live in good health, we must take responsibility for returning a healthy earth and natural environment to our descendants.

Based on these issues, the six pillars of One Health have been identified as specific initiatives to be taken, to ensure that people and animals live in good health "physically, mentally and socially."

Happy Earth
Junichi Hirayama

Born in 1982, Resides in Chikushino City

'When I was small, I started drawing pictures of animals, imitating my mother's art. I love reading animal books and often draw pictures while looking at photos.
"Happy Earth" shows animals in various poses marching around the earth. It expresses the animals' feelings of friendship.'

The Past and Future of One Health

Haruo Kusaba
President, Fukuoka Veterinary Medical Association

We hope you enjoyed this booklet.

One Health is made up of a wide range of themes. It requires the participation of not only doctors and veterinarians but also a wide range of specialists and citizens. The Fukuoka Veterinary Medical Association has prepared this concise booklet, "One Health, The Past and Future," with the support of many people. We hope that it increases your awareness of the One Health approach.

The 2nd WVA-WMA Global Conference on One Health was held in Kitakyushu City, Fukuoka in November 2016, and the Fukuoka Memorandum was adopted. In December 2020, the "Fukuoka Prefecture Basic Ordinance for the Promotion of One Health" was enacted, a world first.

Through these activities, Fukuoka Prefecture has come to be known as an advanced area of One Health. The Fukuoka Veterinary Medical Association will continue to take on the challenge of making various efforts to spread the philosophy of One Health.

Finally, I would like to express my gratitude to all the members of the editorial committee, the Nishinippon Shimbun's Business Editorial Department for their planning and organization, and the staff of couleur, who created the designs for this booklet.

January 2021

Afterword

Although it has been more than a decade since the “One Health” action was advocated, it is still relatively unknown in society. The global spread of COVID-19 in 2020 has allowed us to think about zoonosis control.

We have prepared an easy-to-understand booklet about One Health. It is probably the first of its kind to cover the history of One Health, past initiatives, and future challenges.

We hope that this booklet will deepen many people’s understanding of One Health. We would like to express our sincere gratitude to everyone who contributed to the compilation of this booklet.

One Health Promotional Booklet Editorial Committee

[One Health Promotional Booklet Editorial Committee]

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