COVID-19 and One Health: can we do better? | WEBINAR, 8 July 2020

During the COVID-19 outbreak, important questions emerged concerning the efficiency of the EU in managing this emergency. Healthcare systems in all Member States were challenged and the enormous pressure for a rapid response has made the multisectoral engagement imperative. The veterinary sector has been in the lead in some countries to support the healthcare sector and public health by offering veterinary material, experience on epidemic crisis management and expertise in zoonotic agents. On July 8th 2020, the FEAM European Biomedical Policy Forum in partnership with the Federation of Veterinarians of Europe (FVE) jointly hosted a webinar to reflect on these issues, explore the potentials that a One Health approach provides and highlight the value of interdisciplinary collaboration for the success of our response. Scientists, medical doctors, veterinarians should join forces to tackle this and future pandemics to ensure public health. Prevention and control of zoonotic outbreaks demand joint efforts and imply the close intersectoral collaboration at all levels to improve and do better now and in the future.

COVID-19 highlighted the need for multidisciplinary collaboration within the public health sector. A true implementation of the One Health approach encompasses:

- The inclusive use of all available knowledge and expertise, e.g. veterinarians can make an essential contribution to the management of the current and future pandemics (i.e. viral surveillance in animal reservoirs, epidemiological models, testing strategies and in research)
- Sharing of information, data and laboratory genomic analysis between veterinarians, researchers and healthcare professionals via integrated informative systems
- A communication plan that includes direct exchange between public health colleagues, governments, stakeholder organisations and the general public
- R&D requirements for funding to promote and integrate veterinary and medical professional studies. While prevention of human health relies at large extent to prevention and control of zoonotic diseases in animals, so far all important grants are available for research only in human healthcare (e.g. epidemiology, diagnostics, vaccines). It is imperative to ensure equal and adequate allocation of EU funds for veterinary research (e.g. epidemiology, vaccines or treatment for animals) to prevent disease in humans
- Intersectoral collaboration between healthcare and the veterinary integrated in daily practice, education and research starting in peace times
EU response in the pandemic

The first SARS outbreak in 2002 stimulated the need for better preparedness in health emergency crisis, which led to the establishment of the European Centre for Disease Prevention and Control (ECDC) and the legal framework for the management of cross border health threats. The Health Security Committee at the European Commission coordinates Member States on this epidemiological situation by supporting risk assessment programmes, implementation capacities (public health and health care, laboratories, medical countermeasures), adoption of response measures and recommendations. The DG SANTE mobilized funds to assist Member States to support the health system with medical supplies and to incentivise the development of vaccines and treatments for COVID-19. These funds included a pledge of €1.4 billion launched for a global response to the pandemic. More efforts have been implemented to fight disinformation and to support business, tourism and transport with the release of guidelines for safe return to services.

The Recovery Plan and the budget for the coming years 2021-2027 will cover the following:

- Increased financial support for investment and reforms in Member States
- European Green Deal, digital transition and increased strategic autonomy
- Investments in crisis response tools
- Support to neighbourhood and partners

A ‘One Health’ approach to COVID-19

Coronaviruses have regularly and repeatedly emerged in new host species, often via virus recombination within an intermediate host. Virus accumulates mutations which lead to variation in the severity of diseases. During this pandemic, the international research community has played a crucial role. In just 6 months the virus was identified, the genome sequenced and the spreading was mapped worldwide. At the moment, there are more than 200 vaccine development programmes ongoing with at least 5 of them in human trials. However, despite the efforts, more issues remain to be clarified. Unknown is still the reason why some people are severely ill whilst others are very mildly affected by the disease or if there is a protective immunity and how long it lasts or if vaccines will work efficiently. The only certainty is that a One Health approach can help to answer all of those questions.

About 72% of human emerging disease events are normally caused by zoonotic pathogens, of which 60% in wildlife rather than livestock. The COVID-19 control strategy requires consideration of our environment and the inter-sectoral collaboration between doctors, veterinarians and environmental experts, according to the One Health approach. The veterinary sector can support the management of this pandemic by providing veterinary knowledge on management and control of past animal epidemics, surveillance of wildlife-reservoir for detecting emerging pathogens in risky hot spots, laboratory services to diagnose and characterize pathogens and research support on an animal vaccine to prevent coronavirus-induced diseases. The current outbreak has triggered the need for close consultation and information sharing between animal health specialists and colleagues in human medicine. The prospect of a second wave of SARS-CoV-2 infection across Europe cannot be excluded, considering that the population immunity ranges between 2% and 14%, meaning that still 86% to 98% of the population is still susceptible. For a second emergency plan, testing, tracing, containment measures and local responses are key elements. From a One Health perspective, more discussion and improved communication plan between public health colleagues, governments, stakeholder organisations and the general public is mandatory. At EU level, the lack of a coordinated response to
the pandemic between countries requires to renew the role of the EU to avoid fragmentation in the response and a model for engaging with government and public health authorities.

Contingency planning should be revised to encompass the veterinary contribution, strengthen the response and include the development of harmonized guidelines for animal and food surveillance, that are critical for the implementation of interventions and for reaching a better understanding of the viral spread in novel host populations. Extensive epidemiological surveillance programs are needed to identify viruses with genetic prerequisites for human infection. Serological surveillance (i.e. Next Generation Serology-NGS) and global collaborative projects under the One Health umbrella represent an essential tool to be considered (i.e. PREEMPT and PREDICT). The research and development areas require additional funding for a collaborative partnership between human and veterinary research to create shared platforms and technologies to streamline practical and swift response to emerging or re-emerging zoonoses. More than €1,000 billion is spent on healthcare in the EU each year (OECD/EU (2018)). Important grants are available for research in human healthcare (e.g. epidemiology, diagnostics, vaccines), however, there is not an adequate funding allocation in the EU budget for veterinary research (e.g. epidemiology, vaccines or treatment for animals) to prevent disease in humans. The European Research Area corona platform at the moment does not include any funded research projects related to One Health or veterinary research. This is an important gap that must be filled.

Today, more than ever, we recognise the importance of the principles of One Planet, One Health, One Future to respond efficiently to the new COVID-19 pandemic challenges. This crisis has unambiguously confirmed that working together at all levels, i.e. in healthcare practice, in research and policy-making, is fundamental for ensuring a rapid response, efficient control and quick recovery not only of the patients, but also of the society and the economies. An integrated and coordinated strategy through the implementation of a One Health approach in basic, clinical and epidemiology research is crucial. Intersectoral collaboration between healthcare and the veterinary sector has to be implemented today. Only in this way, by developing inter alia up to date modelling systems and conducting annual exercises to simulate an epidemic, during peacetime, we will know when and how to respond to future pandemics.

Additional material available:

1. Programme and speaker information
2. Full Recording of the event
3. Presentations from the Speakers
   - Dr Charles Price: EU response in the pandemic
   - Prof Eleanor Riley: A One Health approach to COVID-19 research in the UK
   - Dr Maurizio Ferri: Crisis management of COVID-19 and future pandemics through cross-sectoral collaboration in practice
   - Prof Eskild Petersen: SARS-CoV-2 as a zoonosis: the human health perspective
For general enquiries:

Dr Elisa Corritore  
FEAM Forum Policy Officer  
Email: elisa.corritore@feam.eu

Despoina Iatridou  
FVE Senior Policy Officer  
Email: despoina@fve.org

About the FEAM European Biomedical Policy Forum
The FEAM European Biomedical Policy Forum provides a platform for discussion on key policy issues for the biomedical community. The Forum is an initiative from the Federation of European Academies of Medicine (FEAM). It aims to bring together representatives from academia, research charities, industry, European and national trade associations and professional bodies, regulators, public health bodies, and patient and consumers groups. If you would like further information or becoming a partner, please contact elisa.corritore@feam.eu.

About the Federation of Veterinarians of Europe (FVE)
The Federation of Veterinarians of Europe (FVE) is an umbrella organisation of 47 veterinary organisations from 39 European countries, representing a total of around 300 000 veterinarians. FVE strives to enhance animal health, animal welfare, public health and protect the environment, by supporting veterinarians in delivering their professional responsibilities to the best possible standard and ensuring that this expertise is recognized and valued by society. Please find more information on www.fve.org or email to info@fve.org.