The 3rd GRF One Health Summit 2015 was held in Davos, Switzerland from 4-6 October 2015 under the theme «Fostering interdisciplinary collaboration for global public and animal health». The conference was organized by the Global Risk Forum GRF Davos and co-sponsored by the European Academy of Allergy and Clinical Immunology Organisation, the Swiss National Sciences Foundation’s SCOPES programme, and the Community of Davos. The Summit was held under the patronage of and co-hosted by various UN and international agencies, institutions and universities. Researchers, policy makers and practitioners working on broad issues related to health and sustainable development in both developed and developing countries have attended the conference – a successful gathering of about 250 participants from 60 countries. The conference provided a unique forum for dialogue and a strategic platform to foster the exchange of information and viewpoints between the participants.

The GRF One Health concept

One Health as it is understood and promoted by GRF Davos is a broad and holistic paradigm that addresses and frames the complex interactions between human health, livestock, pet and wildlife health, environmental health, ecosystems services, climate, water, sanitation, food systems, energy, human development, equity and justice. The One Health concept is increasingly leading to interdisciplinary and cross-sectoral approaches. These approaches are gaining significant momentum and consolidating One Health further as a paradigm cutting across science, society, policy and practice. The GRF One Health Summits contribute to promoting and fostering this paradigm and the related change in global public health and sustainable development perspectives.

Topics covered

The 3rd GRF One Health Summit 2015 covered areas of human and animal health, nutrition, agriculture, the safety and security of food supplies, antimicrobial resistances, allergies, infectious diseases, sustainable development, environmental stewardship and the management of natural resources, sanitation, energy, biodiversity and ecosystems services, as well as questions of awareness, behaviour, learning, governance, economics, and disaster preparedness. It highlighted different case studies and addressed the complex interactions between those areas.

One Health in the international setting - the Sendai Framework for Disaster Risk Reduction, the SDG, and CoP 21.

Discussions outlined the importance of One Health approaches for sustainable development, notably in the light of the adoption of the sustainable development goals (SDG) by the United Nations General Assembly; the SDG as successors to the millennium development
ones. In this respect the need for the establishment of interlinkages between health and many of the SDGs as well as a new architecture of global health was raised; one that integrates an inter-disciplinary and inter-sectoral way of global health cooperation. These approaches are seen to constitute a valuable framework to evaluate the status of communities, countries and regions and their relevance is appreciated in combatting new, emerging and re-emerging infectious diseases to increase the resilience worldwide.

Case studies have been shared on Integrative Health Risk Management which showed the benefits of integrating risk management perspectives into the One Health approach. The emphasis on risk management and, more generally, on increasing the necessary insight to the resilience of systems have echoed the numerous references to health and to health resilience which are found in the Sendai Framework for Disaster Risk Reduction 2015-2030 which was adopted at the United Nations World Conference on Disaster Risk Reduction held in Sendai, Japan, in March 2015. It was suggested that “health” would be a good performance indicator for DRR. In this context, it was pointed out that One Health in itself provides a valuable framework to shape programmatic processes to address public health and disaster risk reduction.

**One Health advocacy**

The holistic One Health approach still lacks concrete examples that demonstrate its effectiveness and added values. Preventive measures are still less common in health care services than disease control measures. In addition, there is a lack of goodwill for the exchange of data and information between the various disciplines and health sectors. At the same time, the challenge of raising awareness among and achieving coordination between diverse stakeholders has been acknowledged. The acceptance of One Health approaches at ‘higher levels’ and ‘politics’ generally remains an issue although, positive steps in the right direction are progressing. A rigid mind-set in some key players at senior level were pointed out, the lack of legal frameworks to execute One Health programs, as well as a lack of understanding of One Health processes and values across organizational and political sectors.

At any rate, advocacy and involvement at government level are prerequisites for advancing the acceptance and implementation of One Health as well as for mobilizing the indispensable human and financial resources for it. The main factor in the implementation of the One Health approach remains training and education. There is the need for anchoring One Health in university curricula and broad support by the wider public.

**Research needs**

It was agreed that more research needs to be carried out, in particular on the interaction of human, animal and environmental health in order to assess the added value of the interlinkages, to appreciate the influence of behaviour and culture; to carry out modelling of One Health processes; to measure and understand system interactions, feedback loops, key determinants; and to elaborate economic models of return on investment for different levels of intervention resp. health care.

Research is needed to assess the public and political understanding of One Health and its value, its cultural, social and political aspects and to come up with new models for efficient and effective decision-making. Fostering interdisciplinary research programmes linking
policy, economics, social sciences and “hard” sciences is important for future success in further developing the One Health paradigm. Research needs to provide evidence for the benefits and effectiveness of the One Health approach. Evidence based research will certainly also help to convince donors and funding agencies to invest more in One Health.

Data sharing

As in previous Summits, free access to data across the various sectors and disciplines was requested. Once more, it became evident that trans-sectorial access to data is crucial for achieving a substantial increase in evidence based outcomes and easing the development of early warning and detection, surveillance, and monitoring systems.

Education and Training

There is still a lack of a One Health education and training culture and it became obvious that the concept needs to be introduced and integrated into curricula and formal training programs. Initiatives and measures to strengthen the One Health approach in education were therefore widely discussed. Requests were made to develop centres of excellence for education and training in specific areas through enhanced collaboration among colleges and schools of veterinary medicine, human medicine, nutrition, agriculture, and public health. Calls were made for the development of specific One Health courses and curricula on all levels of schooling, starting at a minimum of the undergraduate and ideally in the secondary school level. It was also recommended to develop and deploy distance learning One Health degree and certificate programs. Use can be made of One Health course modules, which have been developed, and successful programs could be linked amongst each other in order to share resources.

Implementation from research to policy and practice

Participants addressed the implementation of the One Health approach from diverse perspectives. In particular showcased was the added value of One Health approaches by a number of systematic case studies. The translation from research into policy/practice was identified as an issue that needs further commitment and funding. Also, the need for more in depth exploration of the synergies between One Health and environmental policy analysis and implementation was stressed. Collaboration and leveraging activities across disciplines and agencies were again underlined, as well as linking multiple stakeholders to minimize duplication of programs. In the same vein, calls were made to foster industry-government-community partnerships. Approaches were advocated so as to initiate demonstration programmes while monitoring and evaluating their implementation and developing return on investment thereon. It is important to seek financing mechanisms that support and promote effective investments for One Health approaches, especially on the grass root level.

As in 2013 the need for a global thematic platform for the representatives of the various health areas, the International One Health Academy (IOHA), has again been requested. Such an international organisation could create the necessary momentum to significantly support a global movement and to institutionalize international One Health collaboration. IOHA would also develop mechanisms and a common language for interdisciplinary communication, coordination and collaboration. It could develop, promote and harmonize platforms for open access to data and information, and foster partnerships to maintain and increase outreach.
Multi-sectoral and multi-disciplinary achievements

People and agencies historically work in siloes and difficult to achieve changes. The One Health approach is integrating more and more disciplines and sectors. However, there is still a lack of trans-disciplinary and trans-sectoral dialogue and collaboration. Failures to bring partners together remain encountered; in particular the private sector lacks engagement within the One Health community. New learnings and appreciation of other disciplines are encouraged. 2015 participants called for increased inclusion of social sciences and humanities in One Health. Interdisciplinary collaboration is therefore required and should be fostered further, using a more unified human, animal, and environmental approach. Furthermore, there is an increasing awareness that One Health goes beyond human, animal and environmental issues, and that it must include a socio-cultural context.

Integrative Risk Management

Trends in risk management show that the world we live in today is more complex, more vulnerable and more interdependent than ever before in history. The growing world population, urbanization and globalization, have greatly increased the risks and impacts of disasters over the recent years. Climate change aggravates the situation in terms of intensity, occurrence and complexity of disasters. Numerous crises and catastrophes have drawn attention to the fact that the extent to which life and property can be protected is limited. Sustainable development and poverty reduction are prerequisites for a healthier world and go hand in hand with disaster risk reduction strategies to achieve the UN SDGs.

Only some 5% of the global health expenditures are dedicated to preventive measures, almost all resources are focussed on ex-post, curative intervention activities. To take effective and efficient decisions for measures which lead to transparent and comparable results in different health risk situations, a consistent and systematic health risk management approach has to be implemented. Such a systematic framework for risk analysis and risk assessment procedures will lead to consistent decisions and to the optimized, integral planning of measures. This health risk concept allows the comparison of various health risk scenarios and provides evidence based arguments to shift from an ex-post, reactive approach to a pro-active risk oriented, ex-ante strategy.

A significant driving force for this paradigm shift is the demand for ex-ante accountability and improved effectiveness of measures. Strengthening primary prevention and the integrative risk management process will provide the necessary tools for a risk based, effective and efficient priority setting.

The One Health Outcome for International Frameworks

The Outcome of the 3rd GRF One Health Summit 2015 is offered as a contribution to the follow-up of the recent World Health Assembly, to the implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030, to the consultations that are already underway with the aim of attaining the sustainable development goals as well as to the preparations and follow-up of the United Nations Conference of Parties (COP 21) on climate change to be held in Paris end of 2015.

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