

International course

# Global one health: towards human, animal and plant health



## Healthy people, healthy animals, healthy planet

Wageningen, The Netherlands, 28 October - 08 November 2019



### How do we produce and consume food whilst safeguarding of our planet?

How do we deal with the (re)emergence of infectious diseases driven by urbanisation, globalisation, and environmental, socio-economic and political factors? With a world population reaching about 9 billion by 2050 and with continuing degradation of the planet's resources these are major challenges we are facing. The course on 'Global One Health: towards human, animal and plant health' addresses these concerns and highlights approaches using a transdisciplinary lens towards human, animal and plant health.

### The health of people, animals, plants and their environments are closely connected.

Think of zoonoses, plant pests, or other vector-borne diseases. Examples in human health are: the well-known avian influenza and SARS epidemics, the recent outbreak of Ebola in West Africa; the global spread of Zika virus; and the alarming invasion of the American fall armyworm in Africa, which threatens food production. Understanding the factors that cause such outbreaks and how they interact is crucial to safeguard the health of people, animals and plants everywhere on the planet. An example: Antibiotic resistance is not a simple problem for which there is a simple solution. It is a complex conundrum that involves livestock farming, healthcare and consumer use but is also further complicated by the fact that bacteria are not hampered by borders in our globalised world. A Global One Health approach is needed to tackle this issue.

### Controlling the risks of disease outbreaks and reducing endemic infectious diseases are crucial

to food security, public health, climate change and biodiversity. We at WUR use the phrase 'A Global One Health', as it reflects the

Fee:	3,700 Euro
Deadline subscription:	16 September 2019
Deadline OKP/MSP fellowships:	<b>19 March 2019</b>

interconnectedness and global nature of health care for humans, animals, plants and the environment. Many health risks can be controlled through effective interventions addressing an adequate, safe and varied food supply, hygiene, medicines, vaccines, vector control, behavioural change strategies, crop protection or animal welfare.

A sustainable and shared approach requires an integrated analysis of health concerns and infectious diseases, with contributions from various knowledge domains. Through a system approach, we can provide an essential contribution to improving the health of people, animals and plants.

### It is not enough to deal with single issues for single diseases,

considering today's highly interactive global linkages. Infectious diseases but also dietary and other health risks form a world-wide threat to human and animal, and environmental health. Prevention and the control of infectious diseases outbreaks is an important societal challenge. Diseases influence each other and have common drivers. Dealing with one issue has consequences for other issues, and we need to consider the interaction between e.g., human and animal diseases, the environment and human diseases, domestic animal and wildlife diseases, social changes and disease burden, economic development and diseases, and trade and diseases. Another grand challenge is posed by antibiotic resistance. Prevention of resistance and development of novel therapeutics and treatment strategies is of world-wide importance. As the causes and possible solutions also include components of healthy

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human lifestyles, farming and healthy wildlife and ecosystem, a One Health approach is required to solve these major societal challenges.

### The concept of Global One Health (GOH)

emphasizes the interdependence between human health, the health of animals, plants and sustainable ecosystems from a global perspective. True prosperity and security will only be reached if we weigh all possible effects of interventions on the health of humans, animals, plants and the environment, while taking ecosystem sustainability into account. The Global One Health approach uses multiple disciplines to seek transnational solutions for improving the health of humans, animals and plants, and ultimately, the sustainability of the ecosystems of planet earth. Central hereby is that the Global One Health approach does not primarily aim at cure of diseases but merely at the prevention of diseases and the promotion of health.

The two-week training programme focuses on the different angles of Global One including the role of ecology and evolution, plant health, animal health, human health and food and nutrition security, epidemiology, economics. Different entry points for GOH action, policy and planning will be highlighted. This course has been developed by Wageningen Centre for Development Innovation and several Centres of Excellence within Wageningen University and Research, notably:

- Resource Ecology, Department of Environmental Sciences
- Business Economics and Health and Society; Department of Social Sciences
- Nutrition, Public Health and Sustainability, Department of Agrotechnology and Food Sciences
- Virology, Wageningen Bioveterinary Research
- Quantitative Veterinary Epidemiology, Department of Animal Sciences.

The course is at BSc level and open to international participants and mid-career professionals, those who are interested to learn more about (Global) One Health, and MSc students of Wageningen University. Course participants should preferably be active in one of the following fields: rural/urban/spatial planning, agribusiness development, livelihood governance, food and nutrition security and sustainable development, or other relevant areas. Several years of professional work experience and at least a BSc level are additional assets. Proficiency in English is a must.

### Course objectives

The overall objective of this course is to introduce the participants to the principles behind a Global One Health

approach and to be able to apply these principles to health challenges for humans, animals and plants in their day-to-day work. In particular:

- Participants understand about the scope of the topic GOH and its range of consequences at multiple levels and learn about the interrelatedness animal, human, plant and environmental health;
- Participants understand the concept of GOH, get familiar with applying different tools and feel equipped to perform GOH analysis;
- Participants learn about the ecological and economic relevance of GOH management;
- Participants get exposed to GOH practices in the Netherlands and are able to identify entry points for GOH policy, planning and management in their own country
- Participants are equipped to prepare an action plan to apply the acquired knowledge upon return in their home countries.

### Further practical information

- **For application**, the procedure is:
  - 1) **Apply at the website of Wageningen Centre for Development Innovation**, [www.wur.eu/cdi](http://www.wur.eu/cdi)  
You will receive a confirmation and more information within a week. Early application is recommended as some procedures to finalise subscription (f.e. funding, visa) can take some time.
  - 2) **Wageningen Centre for Development Innovation** is unable to assist you in obtaining financial support, however if you want to apply for a **OKP/MSP Fellowship**, Wageningen Centre for Development Innovation will provide you with the full instructions and the web address for registration in **ATLAS**. ATLAS is the online application form for an OKP/MSP Fellowship. You can check the eligibility at [www.nuffic.nl/okp](http://www.nuffic.nl/okp) or [www.nuffic.nl/mena](http://www.nuffic.nl/mena). A limited number of scholarships is available. As this application process takes time and requires several documents, we recommend that you **start as soon as possible**.
- **Location**: The Netherlands. For prices, see the cost estimate on our website. **OKP / MSP Fellowships include** travel and full board and lodging.
- **Fee** includes all course related costs (materials, excursions, administration).
- Participants will be awarded with a **Certificate of attendance**. The programme of the course might be changed to incorporate new insights.

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