

Swiss TPH



Swiss Tropical and Public Health Institute  
Schweizerisches Tropen- und Public Health-Institut  
Institut Tropical et de Santé Publique Suisse

Human and Animal Health Research Unit

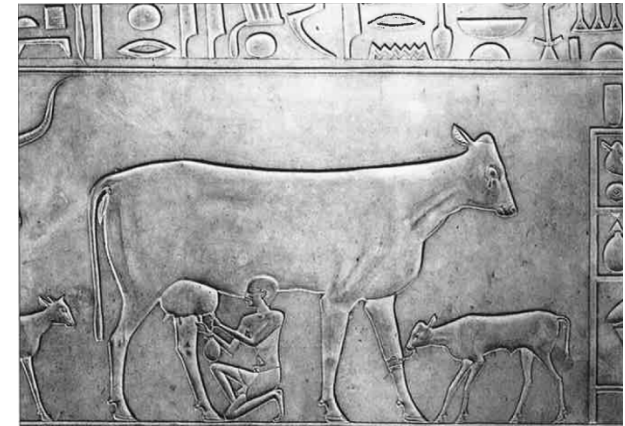
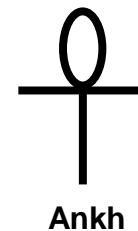
# History of and introduction to One Health

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## Early integrative thinking in cultures and medicine

- Ancient healers, India (transmigration and reincarnation), China, Arab world
- Greek philosophers, doctors and thoughts influenced thinking until the 17<sup>th</sup> century in Europe
- Humoralism → strong environmental and lifestyle components → **really ‘One’**
- Physician Vicq d’Azyr (1749-1794):  
*“Considerations on the diseases which attack man are applicable without any exception to those which attack animals. Medicine is one: and its general principles, once set out, are very easy to apply to different circumstances and species”.*



Egypt, sarcophagus, eleventh dynasty



Slovakia, 7 / 8<sup>th</sup> century

## The germ theory may have hampered cooperation; continued separation – to find each other again

- 1830: recognition of zoonoses → Veterinary Public Health 1948 WHO
- 1860/70<sup>ies</sup> Germ theory
- Laboratory animals, more competition over research funds and policy
- 20<sup>th</sup> / 21<sup>st</sup> century: human-pet relations, food-borne zoonoses, emerging zoonoses
- 2004: Manhattan principles; 2007: One Health initiative task force AVMA;
- 2008/2010: FAO/OIE/WHO
- One Health still evolving conceptually



Mesopotamia 1224: Rabies

# Calvin Schwabe's work started among Dinka of Sudan

- Colonial and post-colonial settings: infectious diseases remained a problem, but the role of the environment could not be ignored → Investigations drawing on entomology, medicine, veterinary medicine and agricultural science
- Many roots of present-day One Health lie in earlier veterinary thought and practice; deeply entangled with development and international health
- Comprehensive One Medicine book showing human-animal interactions, but little testing of hypothesis

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VETERINARY MEDICINE AND HUMAN HEALTH

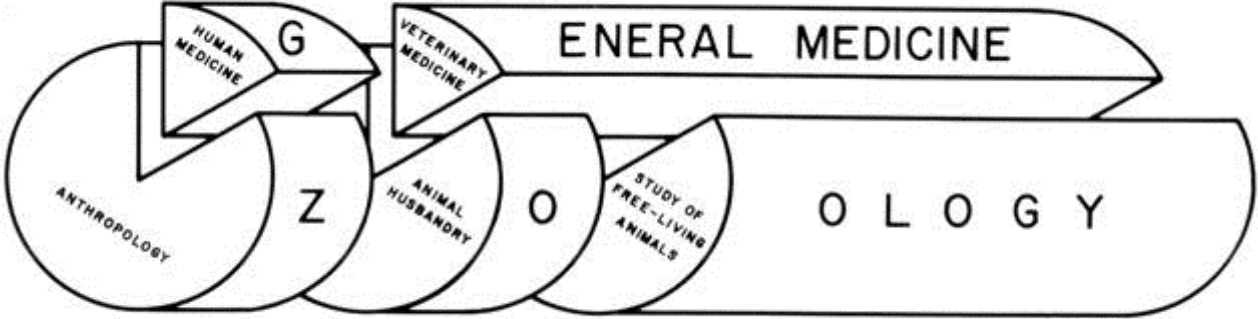


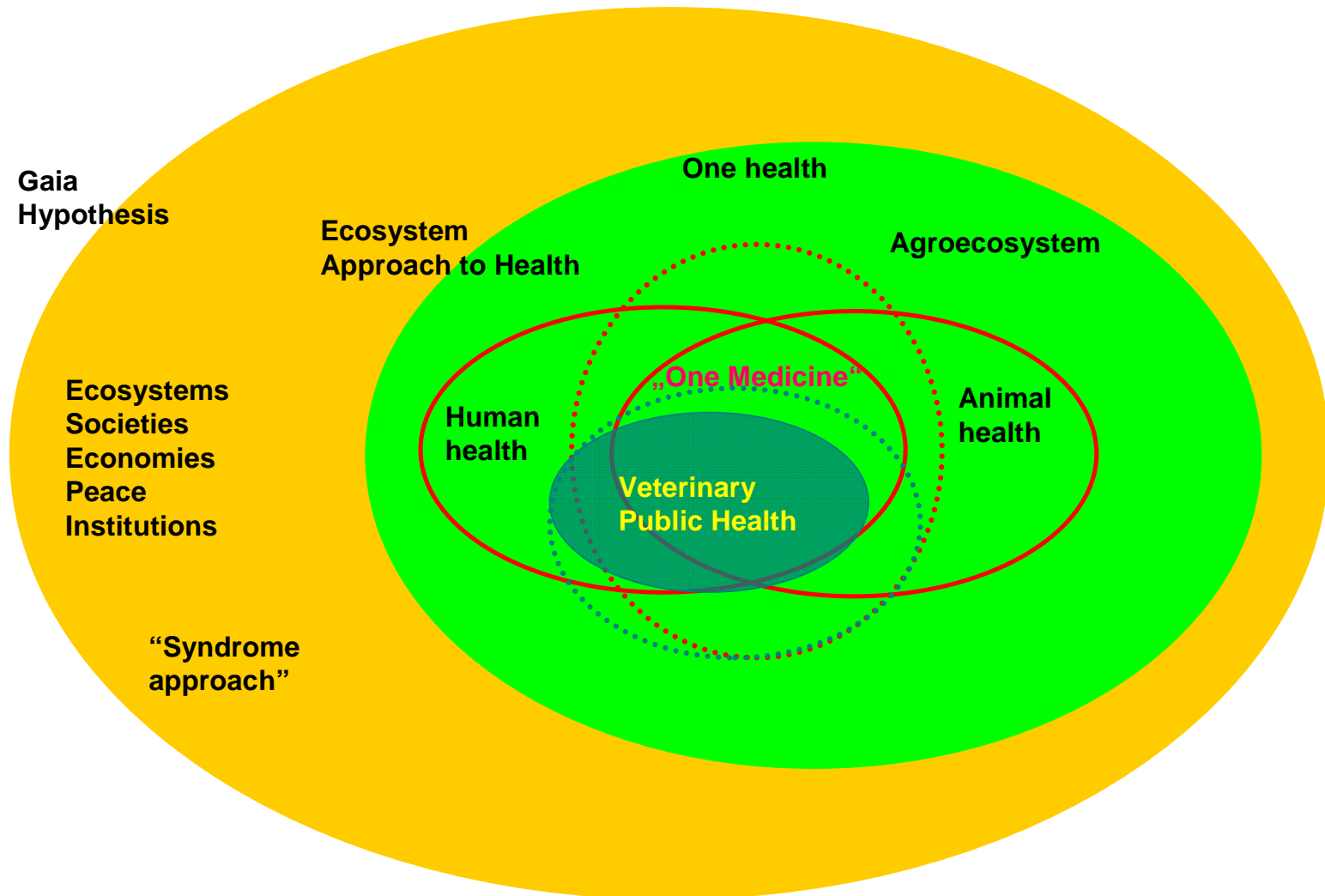
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Schwabe C. (1964; 1984 3rd Edition): Veterinary Medicine and Human Health. Williams and Wilkins, Baltimore

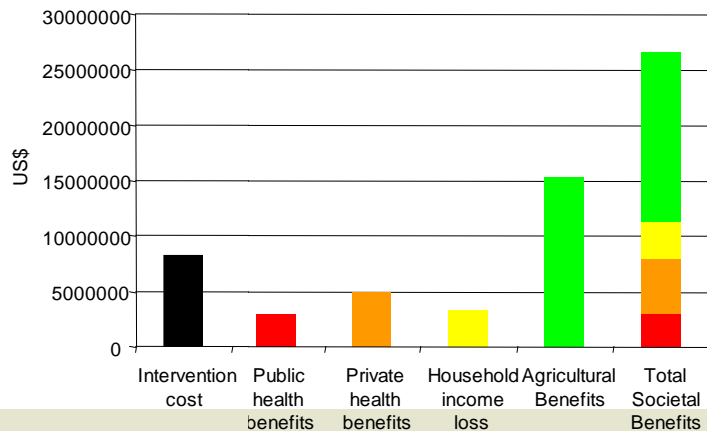
# Neighbouring concepts with focus on health - Humans as part of ecosystems





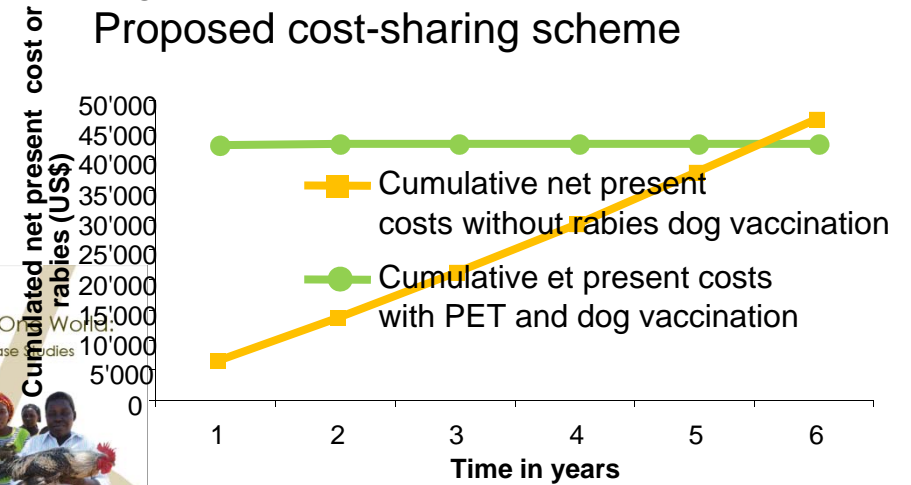
# One Health Research - show added value and its position in Global Health

- Added value in terms of better health and well-being for humans and animals, financial savings and improved environmental services
- → needs exchange of information and ideas
- → underlying theory, practical methods and case studies



Roth et al., 2003, Bulletin WHO

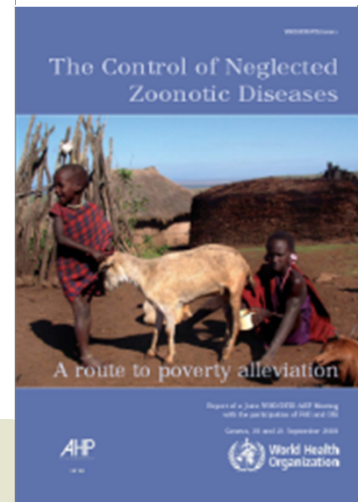
E.g. Cost effective zoonoses control  
Proposed cost-sharing scheme



Zinsstag et al., 2009, PNAS



[http://www.onehealthinitiative.com/publications/OH\\_OW\\_Compendium\\_Case\\_Studies.pdf](http://www.onehealthinitiative.com/publications/OH_OW_Compendium_Case_Studies.pdf)  
Veterinarians without Borders Canada, 2010



Pet-assisted therapy

# One Health: Improving the effectiveness of actions at the human – animal interface

Joint surveillance, preparedness and contingency planning

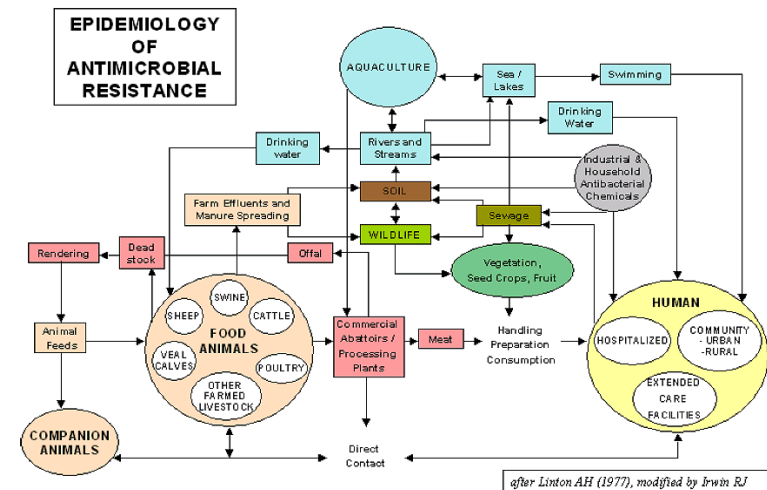
→ reduce time to control of epidemics, cancers, antibiotic resistances → national intersectoral task forces and platforms, regional networks; shared laboratories; response capacity of sectors;

Simultaneous assessment of human and animal health

→ epidemiologic links, evidence for cooperation; better use of the human-animal bond for the control of non-communicable disease like depression or obesity

Joint services

→ Sharing of limited logistics in remote zones, e.g. vaccination



Canadian Integrated Program for Antimicrobial Resistance Surveillance (CIPARS)





SUSTAINABLE DEVELOPMENT  
KNOWLEDGE PLATFORM



One Health EcoHealth 2016

4-7 December 2016 • Melbourne Convention & Exhibition Centre

The 4th International One Health Congress & 6th Biennial Congress of the International Association for Ecology and Health



## Convergence of Ecohealth and One Health

- Ecohealth and One Health both emphasize an holistic understanding to health beyond the biomedical; human health depends on health and divers ecosystems
- Comparative operational research for translation into feasible strategies and settings where One Health could make a real difference
- Should not become an “own” global health entity → an essential prerequisite for a comprehensive, integrated approach to health and well-being