
Approaching procedures for economic evaluation within the One Health perspective

REFERENCE: Short Term Scientific Mission, COST TD1404 NEOH

Beneficiary

Full name of grantee MASSIMO CANALI

Current position (e.g. PhD student, Post doc, Senior Scientist) SENIOR SCIENTIST

Affiliation UNIVERSITY OF BOLOGNA

Country ITALY

Host

Name of Host LAURA CORNELSEN

Current position (e.g. PhD student, Post doc, Senior Scientist) SENIOR SCIENTIST

Affiliation LEVERHULME CENTRE FOR INTEGRATED RESEARCH ON AGRICULTURE AND HEALTH

Country UNITED KINGDOM

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1. Purpose of the visit

A number of analytical tools and methods are available for cross-sectoral economic evaluations related to health issues, but the use and the choices among such instruments need to be adapted on a case-by-case basis.

A first step to approach the issue of an economic evaluation framework for One Health is to identify appropriate procedures assisting evaluators in (1) taking into consideration, as far as possible, all the economic aspects of the impacts of a given One Health initiative and (2) in the subsequent choice of the most suitable tools for analysis.

On this basis, the aim of the STSM was to investigate how the procedures indicated by existing health evaluation frameworks could be reworked appropriately according to a One Health approach and in the perspective of economic assessment, in order to contribute to the tasks of the NEOH Working Group 1 (NEOH Handbook), and especially for the Sub-Groups dedicated to the writing of the NEOH Handbook's chapters 1 (*Critique of current status and the way assessments and evaluations are done*), 4 (*One Health Evaluation frameworks*), and 5 (*One Health methods and metrics*).

2. Description of the work carried out

The objective of the STSM described in point 1 was directly finalised to two interrelated short-term tasks of the NEOH:

- a) the drafting of the NEOH Handbook's sub-chapter 5.6, dedicated to cross-sector economic evaluations;

- b) the preparation of the seminar on economic evaluations for the 1st NEOH Training School of Cluj-Napoca (24-26 June 2015).

The work was carried out through the collection and analysis of available literature (especially by frequenting the library of the London School of Hygiene and Tropical Medicine – LSHTM) and talks with experts present at the LCIRAH and in associated institutions during the period of the Mission. Contacted persons include nutritionists, eco-health experts, and health economic evaluators. Further inputs came from participation to two seminars organised by the LCIRAH (*The challenge of remodelling the food chain for public health*, and *From village chickens to maternal and child health: food and nutrition security through an Ecohealth lens*) and to the 5th LCIRAH annual conference on agri-health research and its side-events.

The two NEOH tasks, mentioned in (a) and (b) above, were implemented in collaboration with Laura Cornelsen (LCIRAH), Barbara Haesler (RVC), Soledad Cuevas (LSHTM) and, at distance, with Maurizio Aragrande (University of Bologna – Unibo). L. Cornelsen, S. Cuevas and M. Aragrande directly participated into the drafting of the NEOH Handbook’s sub-chapter 5.6.

3. Description of the main results obtained

The draft of the NEOH Handbook’s sub-chapter 5.6 provides an all-inclusive framework for the problem of the economic evaluation of One Health initiatives and programmes. Three main sectors to be covered by OH economic evaluations have been identified: the human health care sector, the animal health sector, and the environmental health sector. These may define the areas for the identification of costs and benefits within OH economic evaluations.

The main methods used for the economic evaluation of human health care programmes (i.e. cost, cost-effectiveness, cost-utility, and cost-benefit analyses) may provide a general conceptual background for a majority of basic issues affecting OH economic evaluation: e.g. evaluation of costs and outcomes, discounting, use of data, decision modelling, quantification of uncertainty, relations with epidemiological models, etc.). Animal health economics offers the basis to explore the impacts of OH interventions on the food-supply chain and the implications for food safety and food security, on the use of animal for production of non-food goods and services, including fields such as companion animals, and protection of biodiversity and wildlife. The theoretic context of environmental economics, and especially its variety of methodologies for the evaluation of non-market and intangible goods and services, may contribute to widen the action of economic evaluations to the multi-benefit nature of OH interventions, which, by definition, include many non-health aspects and, in most cases, would require coordinated and multi-disciplinary collaboration from different government agencies and public budget lines. In addition, system analysis and multi-criteria analysis were identified as possible tools to approach the multi-disciplinary implications of OH evaluations, beyond all the conceptual limits of monetary evaluations.

The framework developed for the NEOH Handbook’s sub-chapter 5.6 may also offer significant contributions to the issues treated in the Handbook’s chapters 1 (*Critique of current status and the way assessments and evaluations are done*, e.g. in relation to evaluation of human life, and to the issue of discounting) and 4 (*One Health Evaluation frameworks*).

The contribution to the preparation of the seminar on economic evaluations for the 1st NEOH Training School of Cluj-Napoca (24-26 June 2015) consisted in an overview of the main analytical tools utilised for the economic evaluation of environmental and health goods and services.

A bibliography with downloaded publications on the different aspects of OH economic evaluations has been collected in an on-line application.

4. Future collaboration with host institution (if applicable)

Collaboration with the host institution will continue with the implementation of the NEOH activities, and especially within WG1 for the writing of the NEOH Handbook.

5. Projected publications resulting or anticipated to result from the STSM

- NEOH Handbook's sub-chapter 5.6, dedicated to cross-sector economic evaluations;
- contributions to the NEOH Handbook's chapters 1 (*Critique of current status and the way assessments and evaluations are done*) and 4 (*One Health Evaluation frameworks*).
- contribution to teaching materials for the seminar on Economic Evaluations at the 1st NEOH Training School (Cluj-Napoca, 24-26 June 2015)

6. Confirmation by the host of the successful execution of the mission

The STSM was carried out successfully and it has significantly progressed the writing of the above mentioned NEOH handbook sub-chapters. Outputs of the STSM, such as the drafts of the sub-chapters which Massimo put together, were successfully used during the WG1 meeting in Romania and will form the basis for future work. His visit to LCIRAH and the LSHTM was also successful in meetings and discussions with colleagues working in relevant fields and attending a number of relevant academic events.

7. Financial summary

Expenses	Total expenses in EUR	% covered by NEOH grant (EUR)
Travel	297.18 EUR	100.0% (297.18 EUR)
Accommodation	2,000.28 EUR	75.4% (1,509.17 EUR)
Consumables (food, local travel, books, software etc.)	919.38 EUR	75.4% (693.65 EUR)
Total	3,216.84 EUR	77.7% (2,500.00 EUR)

8. Other comments (if any)

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Signatures

30 June 2015

Grantee

Host