Network for Evaluation of One Health

cost EUROPEAN COOPERATION IN SCIENCE AND TECHNOLOGY

STSM Report: Short Term Scientific Mission in Bologna 12-16 December 2016 on Evaluation of One Health in a case study

REFERENCE: Short Term Scientific Mission, COST TD1404 NEOH

Beneficiary
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Period: from December 12th – 16th, 2016
Case study name: "The comparison of eradication of brucellosis in Malta and in Serbia – Evaluation of One Health point of view".
Reference code: COST-STSM-ECOST-STSM-TD1404-121216-081844

1. Purpose of the visit

I am a member of working groups 1 (WG1) and 2 (WG2), as well as co-leader of WG3 of the COST Action TD1404 NEOH, with the aim of writing a handbook on evaluation of One Health Initiatives, as well as publishing in peer-reviewed journals on the concept of One Health. In Novi Sad, I presented within WG2 a case study on Malta's eradication of Brucellosis *mellitensis,* mostly from a historical perspective in view of the fact that Bruce discovered the microbial cause of 'Malta fever' i.e. Brucella *mellitensis* in Malta in 1887, and Zammit discovered the method of spread of the disease in the goat in 1905. Furthermore, I collaborated with Dr Simon Ruegg to develop a tool to measure transdisciplinarity as part of the One Healthness measure.

In my discussions with WG2, Sara Savic approached me to look at the eradication of Brucellosis in both countries and we decided to evaluate 'One Healthness' in a comparative Malta-Serbia study. The title of the comparative case study is "The comparison of eradication of brucellosis in Malta and in Serbia – Evaluation of One Health point of view".

I have experience in human health as a Public Health Physician in view of my position at the Department of Health in Malta. I have also worked as a hospital doctor for five years and Family Physician for 20 years prior to her role in Public Health. On the other hand, Sara has experience in veterinary medicine, as she currently works in a laboratory of Scientific Veterinary Institute of Novi Sad and also with public health because of her duties while working with zoonozes at the Department of serology and immunology. Therefore, in view of our diverse medical backgrounds, namely human health and animal health, we believe that the comparative case study would provide far richer findings than if we had to present each case study separately.

Our experience in this kind of work would represent the One Health way of working and collaborating, including team working, transdisciplinarity, interdisciplinarity, and engagement. In this STSM, we worked on the methodologies for the evaluation of One Health that are needed to fulfil our tasks taken in WG2 – Evaluation of a case study. The task of the participants in WG2 was primarily to identify case studies that include (or are meant to be) integrated One Health approach. At the second stage the case studies were to be evaluated by using the Evaluation framework that was developed by WG1 of NEOH in 2015-2016. The aim of the STSM in Bologna was therefore to enable us to jointly work with our hosts in applying the tools for evaluation of One Health from the NEOH Handbook for evaluation to our case study, with the intention of presenting this in Malta at the annual meeting of COST action TD1404. The STSM took place at The Department of Agricultural and Food Science and Technology of the University of Bologna (UNIBO-DISTAL), from December 12th to 16th. We also consulted experts involved in NEOH, in particular with Prof Maurizio Aragrande and Dr Massimo Canali, members the Department, for their views on the comparative case study but in particular discussed the potential for embarking on an economic evaluation of the comparative case study. During the various discussions on the various strategies adopted by the two countries, we understood that the two countries utilized different approaches that resulted in successful eradication. In Serbia the eradication was led by the Directorate of veterinary medicine, belonging to the Ministry of agriculture and the whole process has a predominant veterinary point of view. In Malta the Ministry of Health was in the driving seat with a predominantly medical point of view.

This STSM was indeed a great opportunity for both of us to establish collaboration among ourselves but also with colleagues at the University of Bologna.

2. Description of the work carried out

On the first day, we had a meeting with our host and mentor (Prof. dr Maurizio Aragrande), in which we discussed the project, namely the comparative case study, and how far we had progressed with our evaluation process. In this discussion, we also jointly highlighted the background, similarities and differences in the eradication of brucellosis in both countries. We agreed on the time plan for the week, as well as on the future steps. At this point, Sara and I agreed with our hosts to take the opportunity of our hosts' expertise in economic evaluation and therefore to delve deeper into the comparative economic evaluation. At this point Prof Aragrande introduced us to the economic evaluation techniques and application in other case studies. NEOH Handbook suggests several tools for evaluation of OHness in a case study and guidelines for evaluation. In the following days, we worked on OH thinking, planning, working, evaluation of learning and sharing, with the aim to plot the spider diagram and OH index for each country. We applied tools for evaluation from NEOH Handbook (Chapter 3 + appendixes). We followed the guidelines in the Handbook and the tables given to fill. We filled every step for Serbia and for Malta highlighting the differences in the processes adopted for eradication. In particular, we focused on the

transdisciplinarity assessment as part of the OH working. The challenging part of this comparative case study was in applying data/information obtained from interviews prior to our STSM to the scores. Throughout the process, we made sure that the data/information justified the scores in both countries. The review of social and ecological evaluation was done, the evaluation tools were filled and framework for evaluation was applied. Some problems were formulated, all in connection to missing data, in view of the fact that this comparative case study is retrospective. On the last day, we discussed the way forward until the Malta meeting. Some time was dedicated to the discussion on future publications that should come out of the evaluation work. We also agreed with our hosts to collect data for the financial/economic evaluation, so that if successful can be included in future publications.

A summary of the activities carried out during the week are highlighted in the Table below:

Day	Description
December 12th (day 1)	Introduction of the project to our mentors, background, similarities and differences Economic Evaluation techniques and application
December 13th (day 2)	Identified the tools that we needed to use for OH thinking, planning, working, evaluation of learning and sharing so as to able to plot the spider diagram of OHness Applied Framework for evaluation to case study
December 14th (day 3)	Filling the evaluation tools
December 15th (day 4)	Using the evaluation tools in both countries and after comparison, in order to identify essential differences in the 'One Health-ness', Discussion on what and how this might affect the outcomes (what to expect, unexpected outcomes). Discussed with hosts how to proceed with the economic evaluation and what data would be needed.
December 16th (day 5)	The way forward until Malta meeting and economic evaluation plan

3. Description of the main results obtained

The main results obtained during the STSM were the ones on evaluation of our case study. A draft report of the case study evaluation was gained according to the instructions given in the NEOH handbook (Chapter 3) on OHness as the beginning of evaluation process. The report is done in the same order as it is given in the chapter 3 of NEOH Handbook. This case study is somehow different then the others because of its comparative nature. The STSM provided the opportunity for Sara and I, as well as with our hosts to embark on face-to-face meetings that proved useful as we could directly exchange valuable information on the experiences from Serbia and Malta, compare them and see the differences in the processes of eradication.

4. Future collaboration with host institution

Future collaboration will be determined by the publication "The comparison of eradication of brucellosis in Malta and in Serbia – Evaluation of One Health point of view". It should involve the

evaluation of OHness and also economic evaluation which is to be done with the help od Prof. Dr Maurizio Aragrande and Prof. dr Massimo Canali.

5. Projected publications resulting or anticipated to result from the STSM
As previously stated, we aim to participate in Frontiers Veterinary Science special issue on case studies on One Health. But even before that there will be a presentation based on the work done during the STSM, which will be presented at the annual meeting of NEOH COST action in Malta in January 2017.

6. Confirmation by the host of the successful execution of the mission
Sara and I have carried out the STSM successfully, according to the plan. The data gained during the discussions and meetings provide valuable material for the continuation of the evaluation process. All the planned steps of evaluation of the case study were done according to the 5-day plan.

7. Financial summary
(Explanation/breakdown of how the living & travel expenses were spent, receipts are not required)

Expenses	**Total expenses in EUR**	**% Covered by NEOH grant (EUR)**
Travel	330 EUR	91% (300 EUR)
Accommodation	460 EUR	97% (446 EUR)
Consumables (meals)	340 EUR	99% (338 EUR)
Other (faculty insurance)	16 EUR	100% (16 EUR)
Total	**1146 EUR**	**96% (1100 EUR)**

8. Other comments (if any)
The host was very kind to us, helping us to get around the University and Bologna city. Besides the scientific work done during our STSM time, we also had some time for social activities thanks to our hosts.

Signatures
Grantee Host

05th January, 2017