



Aedes Invasive Mosquitoes COST Action CA17108

WG2 – CONVENTIONAL and INNOVATIVE CONTROL
TOOLS

*Task 2.3 - Innovative vector control tools/New
Paradigms;*

Socio-Economic perspectives of mosquito control

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Objectives

MILESTONE:

- ML3 - Systematic socioeconomic analysis and public awareness of novel practices/tools (Y4-II).

DELIVERABLE:

- DL2 - Report on feasibility of scaling-up, cost-benefits and community acceptance of conventional and innovative AIM control approaches (Y4-IV)

Suggested steps (According to WG meetings)

- Literature review (and evidence) for methodologies in cost & benefit globally
- Focus on methodologies applied in Europe
- Propose the replication of methodologies on innovative control tools in Europe and other temperate areas
- Identify purpose of the WG

Basic Research Question

- Socio-Economic perspectives of mosquito control activities in Europe;

Specifically considering their importance to inform:

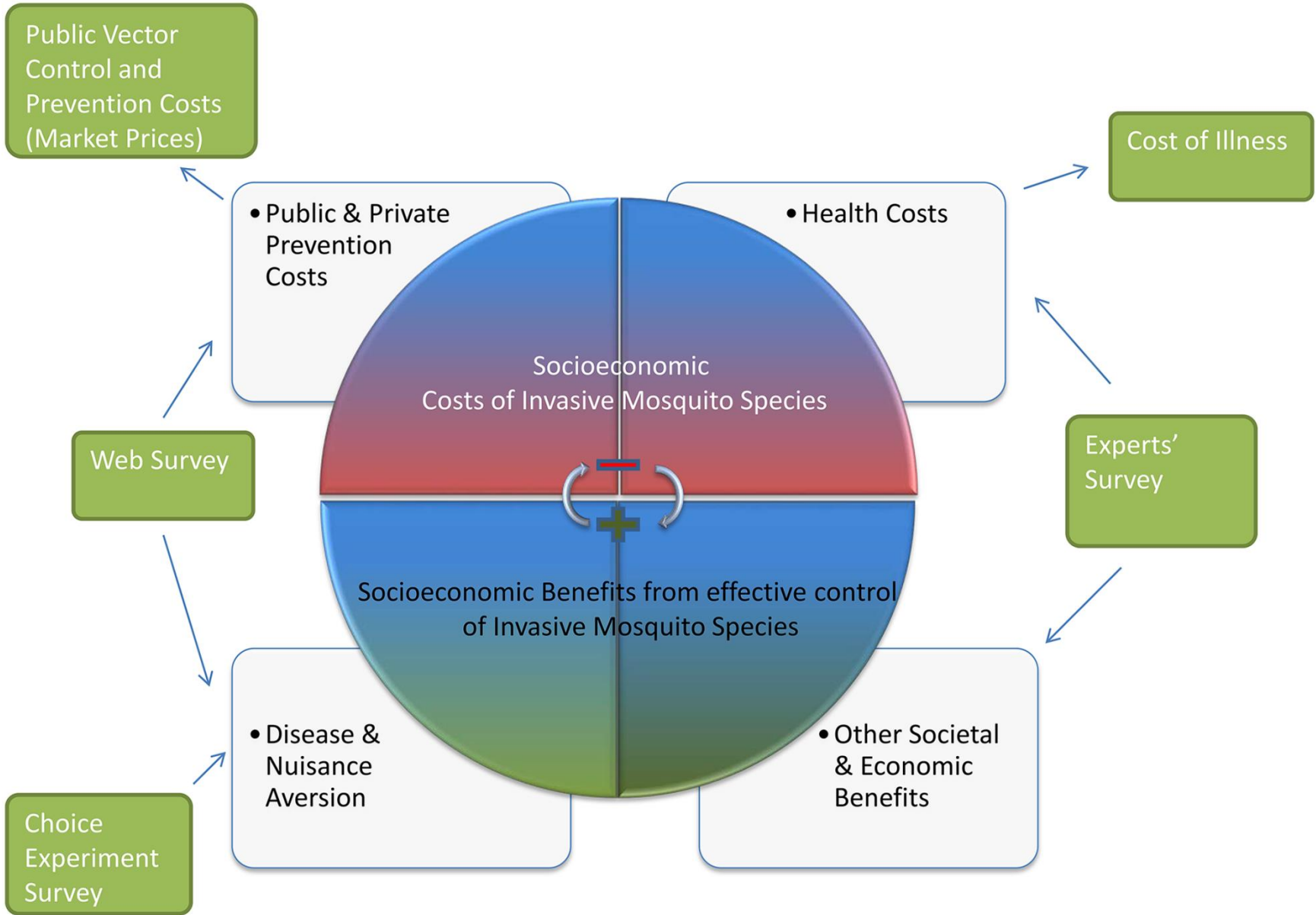
- Importance for Public Policy,
- Importance for Public Health/ Epidemiology,
- Importance for Entomology/Mosquito Control

Methods

- Mini Review of relevant socioeconomic studies in Europe:
 - a) studies focusing on cost analysis for public control and prevention costs,
 - b) studies on cost of illness from mosquito borne diseases,
 - c) studies investigating the benefit levels of implementing various mosquito control programs,
 - d) studies examining cost-effectiveness of mosquito control interventions.

Methods

- Studies were then categorized according to:
 - Methods,
 - Socioeconomic Indicators,
 - Indicative Economic Figures,
 - Challenges/Limitations,
 - Importance for Public Policy,
 - Importance for Public Health/ Epidemiology,
 - Importance for Entomology/Mosquito Control



Source: Kolimenakis et al., "On lifestyle trends, health and mosquitoes: Formulating welfare levels for control of the Asian tiger mosquito in Greece." *PLoS neglected tropical diseases* 13.6 (2019): e0007467.

Challenges/Limitations

- Figures are not always comparable
- Few papers on the socioeconomic figures of innovative mosquito control methods
- Narrow down the WG's task; Narrow down the question to be answered

WG Expert Questions

- Why is socioeconomic analysis important
- What type of analysis is needed
- What would mosquito control experts expect to receive... from socioeconomic analysis?

Main findings

- Evidence supporting the choice of prevention measures as a cost-effective strategy regarding Aedes-borne diseases are already available
- Evidence can bridge the gaps between “vector-control”, “society and economy”, “public health”, and “policy making”
- Holistic approaches cannot be disassociated from relevant notions such as one health
- Societal and environmental pressures are expected to add a further burden in the estimation of future welfare levels
- The importance of mosquito control as a public good, links to the improvement of citizens’ wellbeing, as well as public health as a societal good
- Need for policy makers to focus on the importance of integrated management of mosquito species

Highlights for future consideration in public policy

- Need for weighted methodological limitations to support decision makers
- Further study of mosquito control as a public good also in the forefront of existing climate and socioeconomic challenges
- Consideration of available socioeconomic indicators to calculate cost-benefit relations for different socio-demographic settings
- Consideration of value versus impact in terms of public health;
- Improve science-policy support and communication by making a better use of the translated reading of the evaluation findings

THANK YOU

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