



EpiSouth

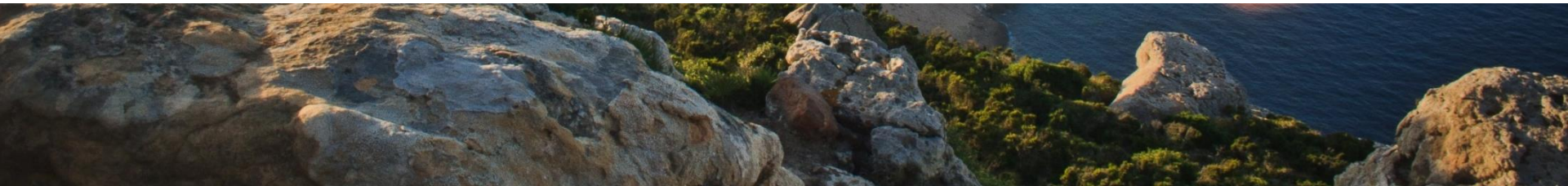
Network for the Control of Public Health Threats
in the Mediterranean Region and South East Europe



From EpiSouth to MediLabSecure: strengthening preparedness and capacity building in Mediterranean and Black Sea Countries (2006-2018)

Silvia Declich and Maria Grazia Dente
Istituto Superiore di Sanità, Rome - Italy
on behalf of EpiSouth and MediLabSecure Network

*Best practices in implementing the International Health Regulations (IHR)
Athens, Greece 07-08/06/2018*



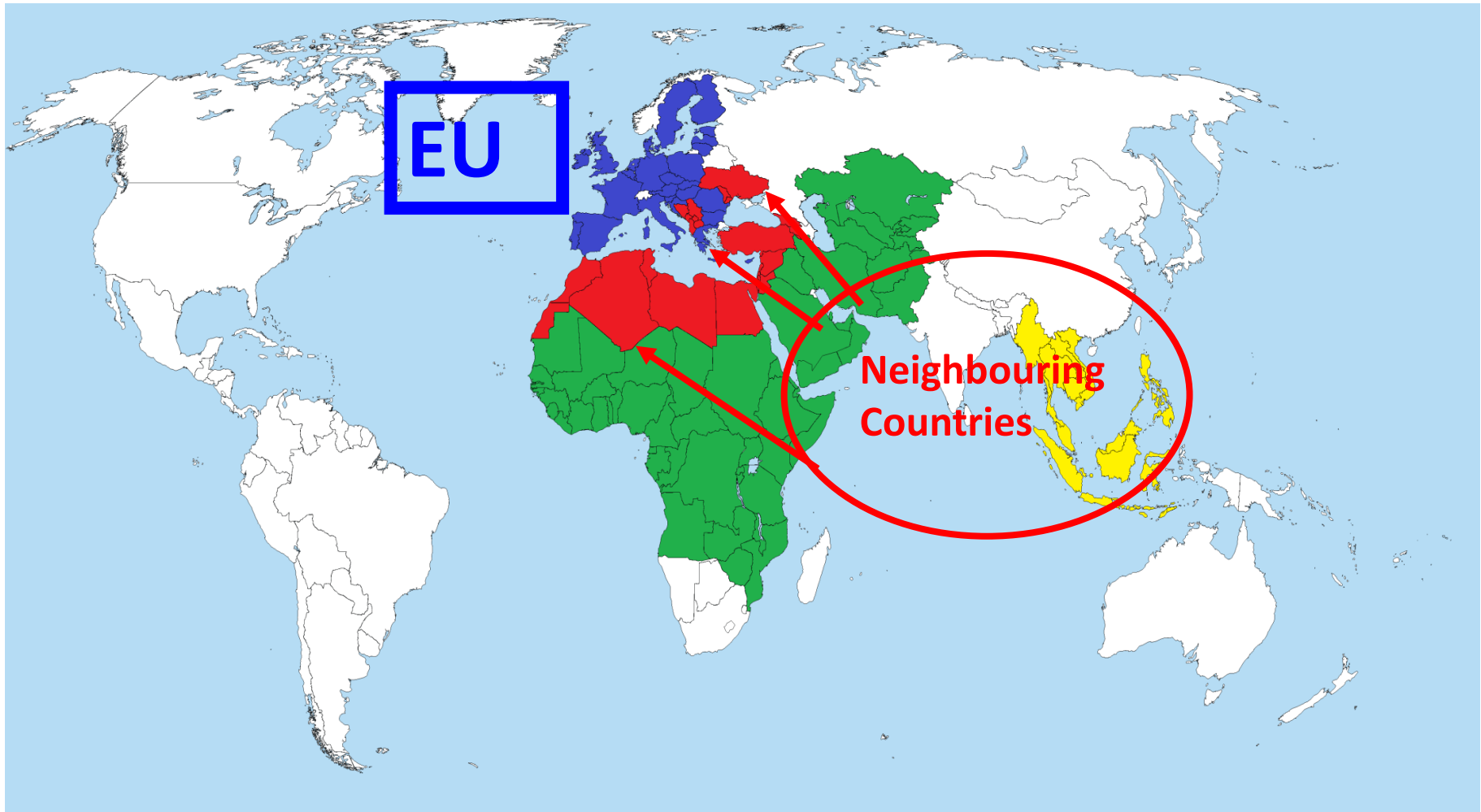
Activities

to reinforce **cross-border & inter-sectorial preparedness and capacity building** of EU and neighbouring countries (2006-2018)

- To increase the health security in the Mediterranean area, South-East Europe and the Black Sea Region
- To enhance and strengthen the preparedness to common health threats and bio-security risks at national and regional levels
- To contribute to IHR implementation

EU & neighbourhood countries 2006-2018

Involved Countries





European Health Award 2014 Winner EpiSouth Project

EHFG President Prof Helmut Brand said in his praise of the project:

- “The project is of particular importance for strengthening preparedness to health threats, health security and bio-security, also outside the EU”.
- “The achievements of EpiSouthPlus are an eloquent example that in the field of public health, cross-border cooperation is not just useful but, in many cases such as these, simply indispensable”

Health Security
Volume 15, Number 4, 2017 © Mary Ann Liebert, Inc.
DOI: 10.1089/hs.2016.0081



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Network for the Control of Public Health Threats
in the Mediterranean Region and South East Europe

CONTRIBUTION OF REGIONAL NETWORKS TO THE CONTROL OF CROSS-BORDER PUBLIC HEALTH THREATS: EPI SOUTH IN THE MEDITERRANEAN REGION AND SOUTHEAST EUROPE

Maria Grazia Dente, Flavia Riccardo, Mondher Bejaoui, Massimo Fabiani,
Dragan Lausevic, and Silvia Declich; on behalf of the EpiSouth Working Group



Capacity building strategy





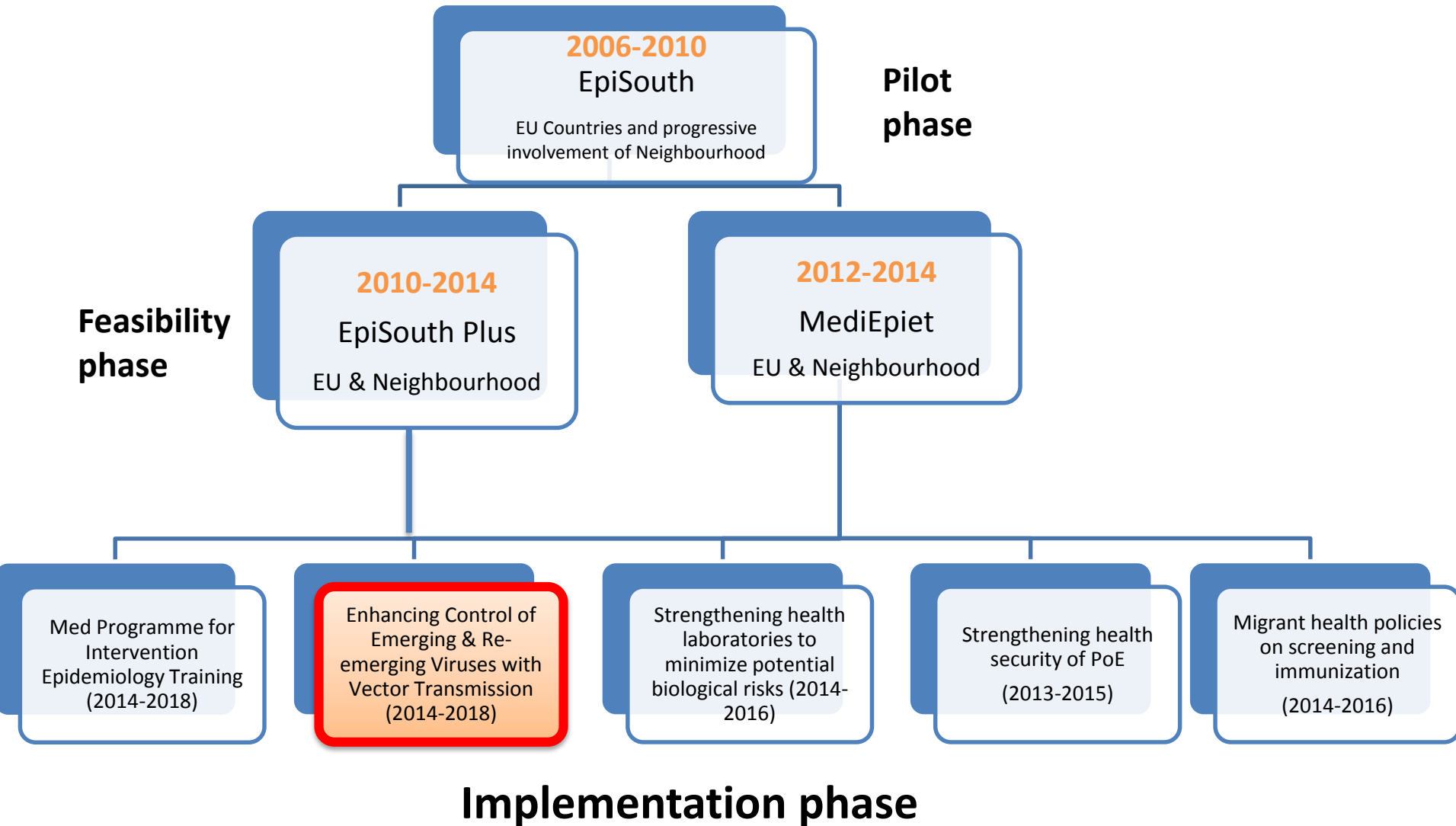
EpiSouth

Network for the Control of Public Health Threats
in the Mediterranean Region and South East Europe

Networking added value

- Creation of a trust, cohesion and concrete collaboration
- Increased and facilitated working relationships: sharing knowledge and info without reservation
- Creation of an environment able to address specific global and trans-regional threats

Development and sustainability



MediLabSecure aims at increasing the health security in the Mediterranean and Black Sea Regions by enhancing and strengthening the **preparedness** to common health threats at national and regional level, following a **One Health approach**

Cluster of awareness, risk assessment, surveillance, monitoring and control of relevant emerging disease, with special focus on **arbovirus infections**

**WP4
Medical
Entomology**



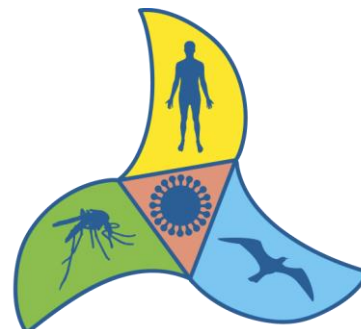
**WP2
Animal
virology**



**WP3
Human
Virology and
Biosafety**



**WP 5
Public
Health**



MediLabSecure

Coordinated by Institut Pasteur



One Health Network



- Project Partners
- MediLabSecure Network Partner countries



* This designation is without prejudice to position on status, and is in line with UN Security Council Resolution 1244/99 and the International Court of Justice Opinion on the Kosovo declaration of independence
** This designation does not entail any recognition of Palestine as a state and is without prejudice to positions on the recognition of Palestine as a state

The network comprises 55 laboratories & 19 PHIs/MoHs of 19 non-EU countries in the Mediterranean and Black Sea regions.

Involved actors



- Public Health Institutes/ Epidemiology (from EpiSouth)



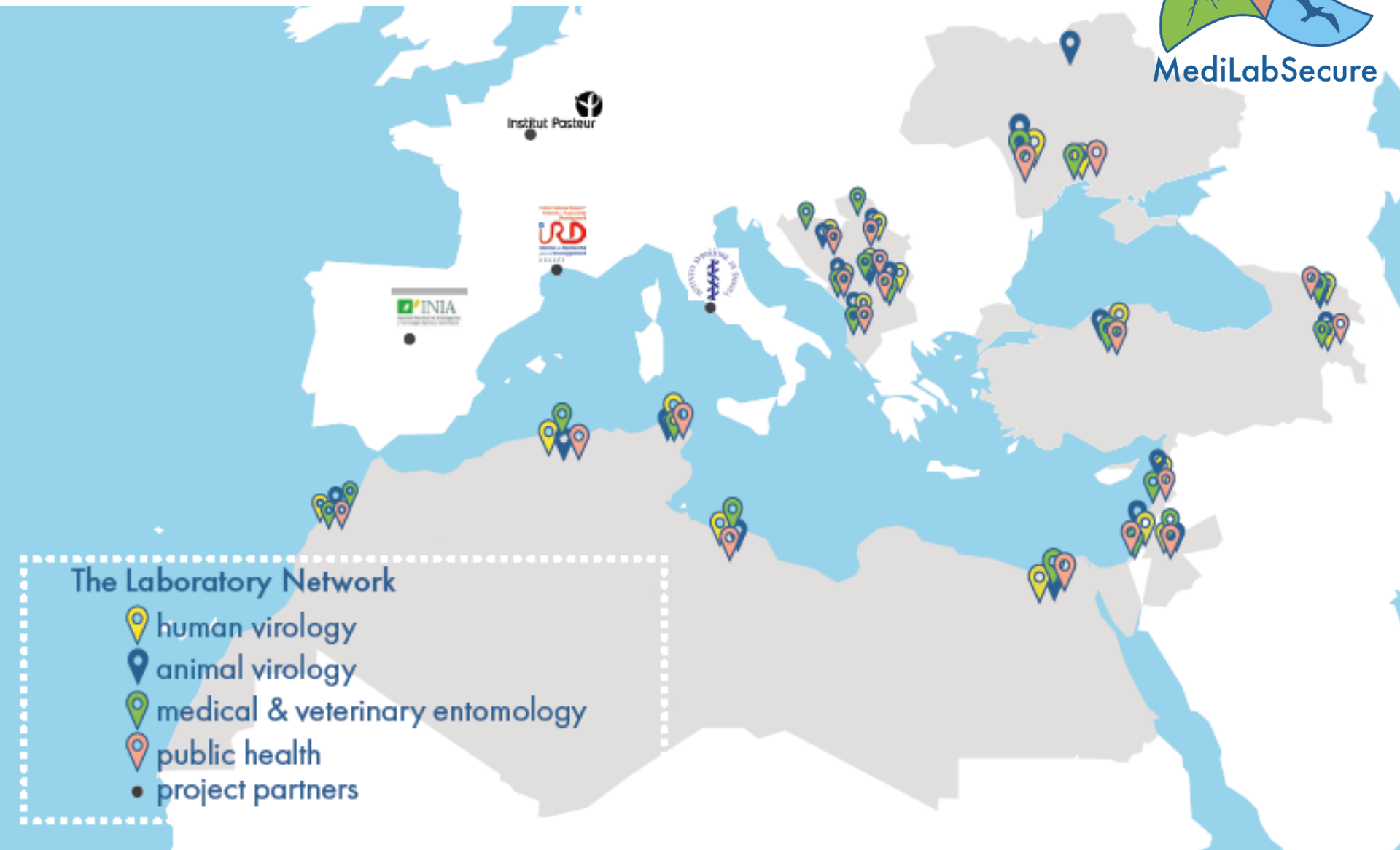
- Human Virology Lab (from Episouth)



- Animal Virology Lab



- Medical Entomology Lab



One Health

...is an approach of improving health and well-being through the **prevention** of risk and the **mitigation** of effects of crises (e.g. emerging diseases) that originate at the **interface between humans, animals and their various environments** (Stone Mountain Process Atlanta USA 2012)



... the desired impact of the One Health approach expected through **intersectoral integration** can only be achieved if also the **capacities of each involved sector** are sufficiently strong and developed

(Häsler B, Gilbert W, Jones BA, Pfeiffer DU, Rushton J, Otte MJ. The economic value of One Health in relation to the mitigation of zoonotic disease risks. *Curr Top Microbiol Immunol.* 2012;365:127–51).

MedilabSecure

is working with a comprehensive strategy addressing both the capacity of the single sector and the intersectoral integration.

Escadafal et al. *BMC Public Health* (2016) 16:1219
DOI 10.1186/s12889-016-3831-1

BMC Public Health

CORRESPONDENCE

Open Access

Risk of Zika virus transmission in the Euro-Mediterranean area and the added value of building preparedness to arboviral threats from a One Health perspective



Camille Escadafal¹, Lobna Gaayeb¹, Flavia Riccardo², Elisa Pérez-Ramírez³, Marie Picard⁵, Maria Grazia Dente², Jovita Fernández-Pinero³, Jean-Claude Manuguerra¹, Miguel-Ángel Jiménez-Clavero^{3,4}, Silvia Declich², Kathleen Victorir^{1*} and Vincent Robert⁵



Main activities

Workshops (lab+field) (12)

Molecular and serological diagnostic tools for the detection of arboviruses



Capacity building in mosquito vectors of arboviruses



Vector-borne viruses risk assessment and integrated surveillance



Biorisk management and infectious substances shipment



Molec. analysis of zoonotic arboviruses



- 340 participants
- 400 hours theoretical and practical training

Qualitative study

Situation analysis on integrated surveillance of arboviruses in the Mediterranean and Black Sea regions



Delivery of Tool

MosKeyTool: an interactive key for mosquito spp. identification



EQAs

PCR (WNV, RVFV, ChikV)
Serology (WNV, RVFV, ChikV)
Identification of mosquitoes



Networking: 15 meetings

- **Coordination meetings**
- **General meetings**
 - Kick-off
 - Heads of laboratories
 - Mid-term meeting
 - Global Conference
 - 2 regional meetings



Site visits

Dissemination: > 45 actions

- 4 scientific papers
- 1 travelling exhibition (>8 languages)
- 36 presentations at conferences (oral and poster)
- 8 participations to other project meetings (WHO, ECDC, etc)
- One Health day labelling



Public Health Group

Aim

Public health activities reinforce the **preparedness** of MediLabSecure Network by strengthening:
integrated surveillance,
multisectoral risk assessment and
early case detection of arboviral diseases
in the framework of ***One Health.***

Public Health Group Activities



❖ Integrated Surveillance

To identify criteria to define integrated surveillance and to compare different systems:

- A Conceptual framework
- A Scoping Review
- A Survey among MediLabSecure members
- A Situation analysis in the Mediterranean and Black Sea Regions

❖ Integrated Risk Assessments

A Conceptual framework

- to assess levels of integration of surveillance systems

Level of integration	Sublevels of integration	Criteria
Policy and institutional level	Policy level	<ol style="list-style-type: none"> 1. Existence of a National policy addressing integrated surveillance for this specific exposure 2. Existence of a policy addressing integrated surveillance for this specific exposure at subnational level
	Institutional level	<ol style="list-style-type: none"> 3. Existence of agreements among the institutions involved in human/animal/entomological surveillance for the specific exposure. 4. Existence of a coordination mechanisms among the institutions involved, 5. Existence of identified focal points for each of human/animal/entomological surveillance for the specific exposure
Data collection and analysis level	Interoperability mechanisms at data collection level	<ol style="list-style-type: none"> 6. Existence of integrated data collection tools 7. Existence of activation mechanisms of human surveillance based on signals from animal/entomological surveillance 8. Other interoperability mechanisms at data collection level
	Interoperability mechanisms at data analysis level	<ol style="list-style-type: none"> 9. Presence of DB exchange/merging/other mechanisms to facilitate joint analysis among sectors. 10. Performance of joint/integrated data analysis among the different surveillance sectors 11. Other interoperability mechanisms at data analysis level
Dissemination level	-	<ol style="list-style-type: none"> 12. Existence of joint result dissemination mechanisms (e.g. bulletins, reports, papers, media reports, websites ...)

A literature review

- to identify and examine surveillance systems for WNV, CHKV, DENV, RFV
- to verify the conceptual framework




International Journal of
*Environmental Research
and Public Health*



Review

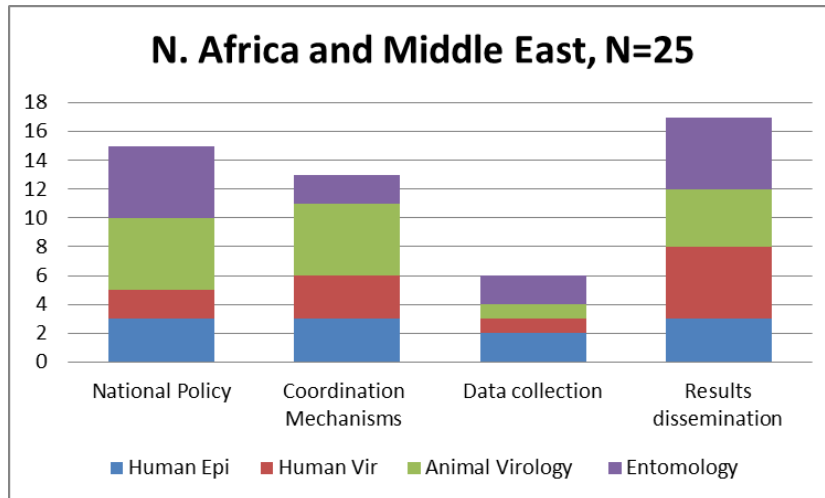
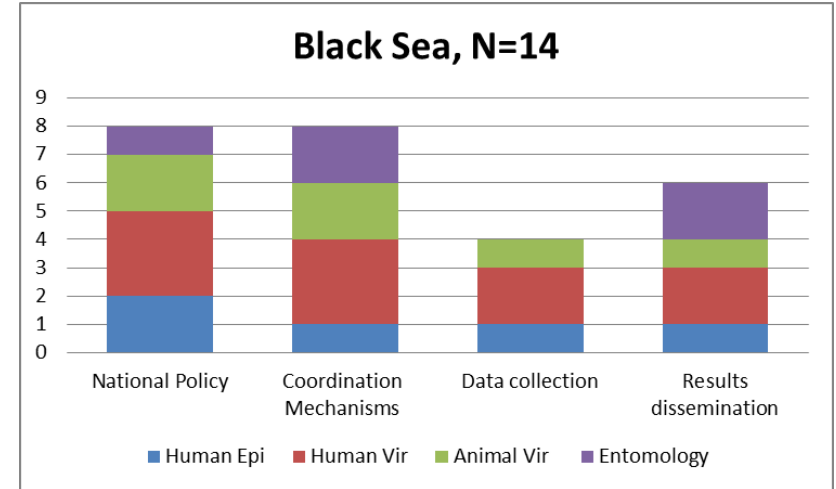
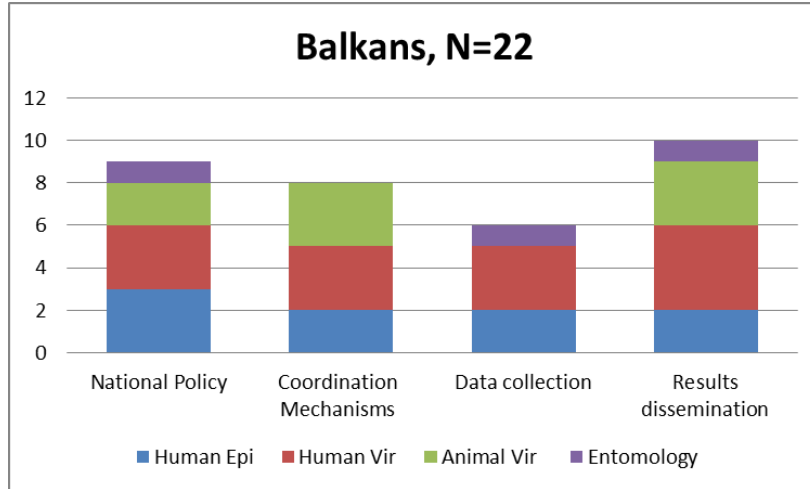
Strengthening Preparedness for Arbovirus Infections in Mediterranean and Black Sea Countries: A Conceptual Framework to Assess Integrated Surveillance in the Context of the One Health Strategy

Maria Grazia Dente ^{1,*}, Flavia Riccardo ¹, Gloria Nacca ¹, Alessia Ranghiasi ¹,
Camille Escadafal ^{2,3}, Lobna Gaayeb ², Miguel Angel Jiménez-Clavero ^{4,5} ,
Jean-Claude Manuguerra ², Marie Picard ⁶, Jovita Fernández-Pinero ⁴, Elisa Pérez-Ramírez ⁴,
Vincent Robert ⁶, Kathleen Victoir ² and Silvia Declich ¹

A survey



to assess levels of integration reported



QUADERNI DELLA SOCIETÀ ITALIANA DI MEDICINA TROPICALE E SALUTE GLOBALE N. 1, 2016

Strengthening integrated surveillance for arboviruses in the Mediterranean and Black Sea regions in the framework of the *One Health* approach

M. G. DENTE¹, F. RICCARDO^{1,2}, G. NACCA¹, A. RANGHIASCI¹, J. C. MANUGUERRA³, C. ESCADAFAL³, M. A. JIMENEZ-CLAVERO⁴, E. PEREZ RAMIREZ², V. ROBERT⁵, M. PICARD⁵, F. CHERBLANC³, L. GAAYEB³, K. VICTOIR³, S. DECLICH¹ ON BEHALF OF THE MEDI-LABSECURE NETWORK

A survey

to assess levels of integration reported



Level of integration	Sublevels of integration	Number of countries reporting integration (N 19)	Number of respondents reporting integration (N 61)	N Respondents reporting integration		
				Balkans (N 22)	Black Sea (N 14)	NA & ME (N 25)
Policy and institutional level	Policy level	17	52% (32)	41% (9)	57% (8)	60% (15)
	Institutional level	16	48% (29)	36% (8)	57% (8)	52% (13)
Data collection and analysis level	-	10	26% (16)	27% (6)	29% (4)	24% (6)
Dissemination level	-	16	54% (33)	45% (10)	43% (6)	68% (17)

A Situation Analysis on integrated surveillance of arboviruses (MeSA Study)

- qualitative situational analysis study
- involving human, animal and entomology sectors of vector borne disease surveillance
- in three countries of the Mediterranean and Black Sea region participating to the MediLabSecure: **Serbia, Tunisia and Georgia**



Multi-sectoral Risk Assessment (MRA) exercises



FACILITATOR'S GUIDE

❖ To enhance knowledge and capacity on MRA for:

- **WNV** disease (Paris 2015)
- **CCHF** (Belgrade 2016)
- **RVF** (Tunis 2017)

❖ To foster small group discussion on **the status of priorities arboviruses** in the region and to assess level of risks at country level

❖ To assess and encourage **multi-sectoral collaboration and exchange**, also among neighbouring countries and assess the added value

❖ To make the participants aware of available methodologies and tools:

- **ECDC Tool for RA for WNV** (Paris 2015)
- **ECDC guidance on Rapid RA** (Belgrade 2016)
- **FAO RA methodology** (Tunis 2017)



MediLabSecure
Mid Term meeting and Technical Workshop on Public Health
Paris 15-17 December 2015

MULTISECTORAL EXERCISE ON RISK ASSESSMENT
December 16th 2015

FACILITATOR'S GUIDE



MediLabSecure
Regional meeting and Technical Workshop on Public Health
Belgrade 15-17 November 2016

2nd MULTISECTORAL EXERCISE ON RISK ASSESSMENT
November 17th 2016



FACILITATOR'S GUIDE

3rd MULTISECTORAL EXERCISE ON RISK ASSESSMENT
MediLabSecure
Regional meeting and Technical Workshop on Public Health
Tunis 4-6 July 2017



MRA exercise on WNV

The exercise involved 73 participants divided in 6 small groups by country according to regional proximity:

Groups	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Name	Black Sea 1	Black sea 2	North Africa	Balkans 1	Balkans 2	Middle East
N. Participants	9	8	14	11	14	17
Countries	Moldova, Ukraine	Armenia, Georgia	Algeria, Morocco, Tunisia, Egypt	Albania, Bosnia- Herzegovin a, Kosovo	Montenegro , Serbia, R. Macedonia	Palestine, Turkey, Jordan, Lebanon

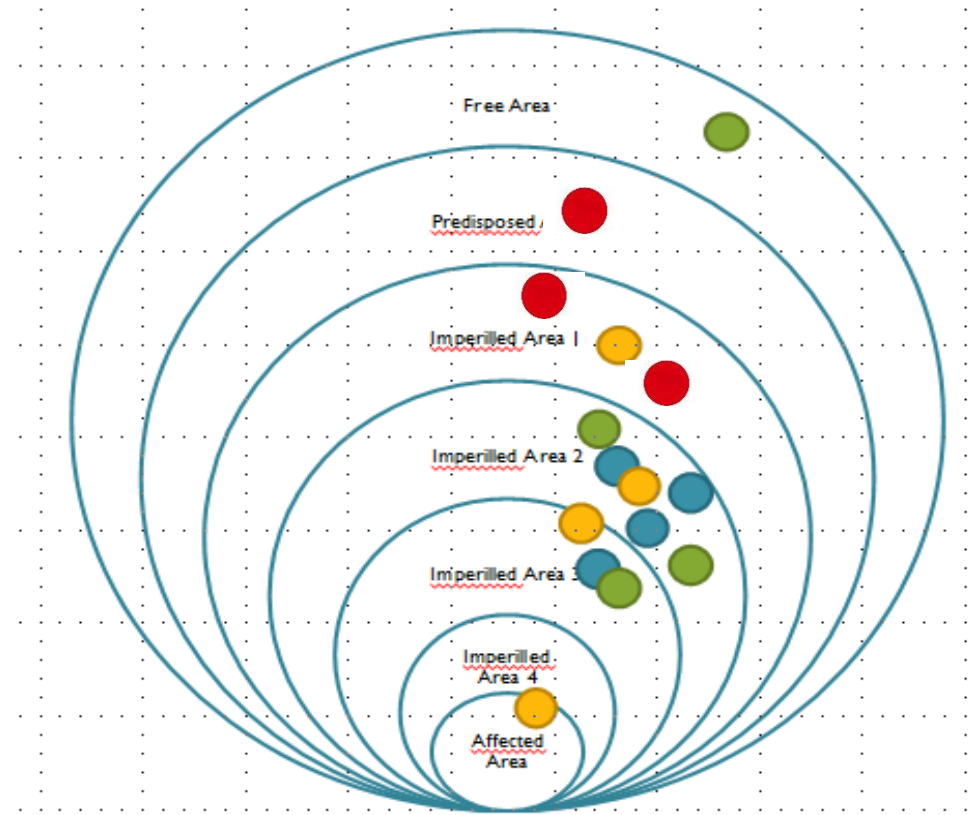
MRA exercise on WNV

Each participant was asked to identify the risk area that is mostly representative of his/her country on a wall poster using sticky dots (dots' colour according to the sector) using the following table from the ECDC tool:

Corresponding risk area	Risk level	Description
Free area	0	No historical circulation of WNV
Predisposed area	1	Ecological conditions suitable for WNV circulation but no historical circulation of WNV
Imperilled	2	Past evidence of WNV circulation
	3a	Evidence of WNV circulation in mosquitoes or birds in the second part of the current season (August-September-October)
	3b	Evidence of WNV circulation in mosquitoes or birds in the first part of the current season (May-June-July)
Affected	4	WNV-specific IgM detected in local non-vaccinated horse(s) or WNV isolated from a local horse.
	5	Detection of at least one human case according to the EU case definition.

Seasonal risk levels of WNV transmission to humans (ECDC Tool)

MRA exercise on WNV



example risk scoring result by regional group

Colour	Sector
yellow	Human virology
blue	Animal virology
green	Medical Entomology
red	Public Health

MRA exercises: lessons learned



- Valorization, dissemination and utilization of **available methodologies and tools on RA** should be promoted at national level also to evaluate the appropriateness of these methodologies and tools in national contexts
- MRA fosters **discussion between the different sectors** involved in the surveillance of arboviruses and **enhances awareness on reciprocal** roles, expertise and procedures
- **Sectors coordination/collaboration** contributes to the assessment of the risks especially **in case of lack** of relevant documentation and updated information



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in the Mediterranean Region and South East Europe



EU & neighbourhood countries 2006-2018

Collaborating Institutions

- **European Commission:** EuropeAid-DG DEVCO – EC DG SANCO – EC DG JRC
- **European Agency:** CHAFEA – ECDC
- **WHO:** Lyon office, HQ, Regional and National Offices
- **Spain:** Instituto de Salud Carlos III, Madrid - FIAPP Cooperaciòn Espanola, Madrid - Centre for Research on Animal Health (INIA-CISA), Madrid
- **France:** Institut Pasteur, Paris - Institut de Veille Sanitaire, Paris - Institut de Recherche pour le Développement (IRD), Montpellier
- **Greece:** Hellenic Center for Disease Control & Prevention, Athens
- **Italy:** Italian National Institute for Health, Rome - Italian Ministry of Health, Rome
- **Albania, Algeria, Armenia, Bosnia and Herzegovina, Bulgaria, Cyprus, Egypt, Georgia, Israel, Jordan, Kosovo, Lebanon, Libya, Malta, Moldova, Montenegro, Morocco, Palestine, Romania, Serbia, Slovenia, Syria, The former Yugoslav Republic of Macedonia, Tunisia, Turkey, Ukraine.**



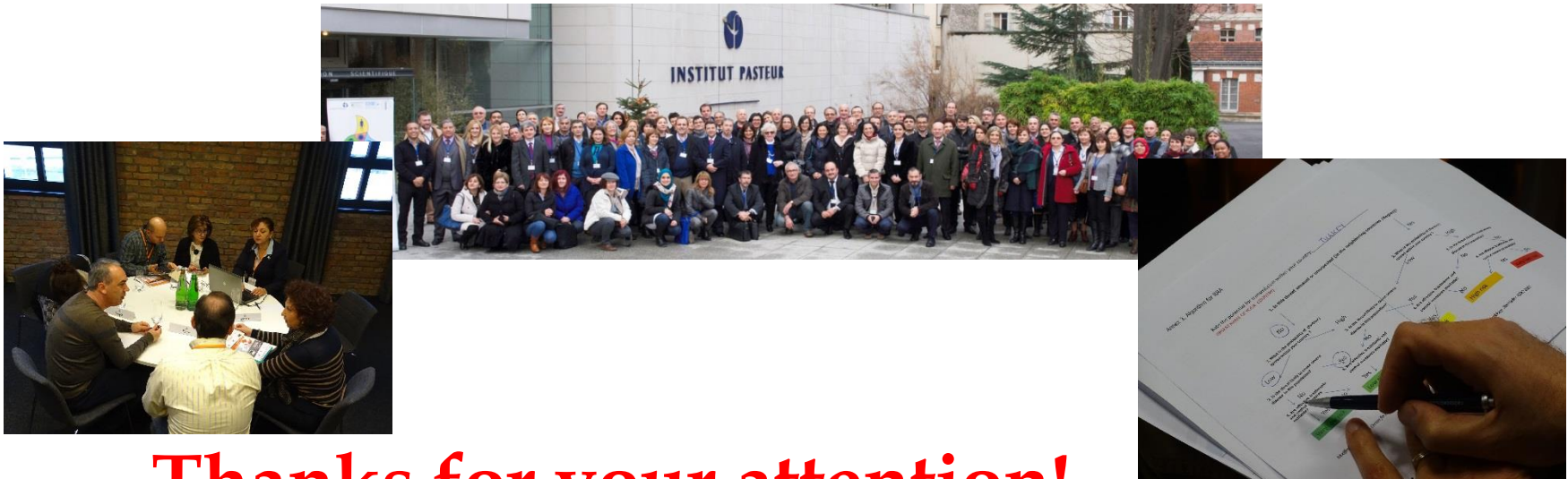
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[www. Episouthnetwork.org](http://www.Episouthnetwork.org)



[www. Medilabsecure.com](http://www.Medilabsecure.com)



Thanks for your attention!



The EpiSouth-Plus project was co-funded by the European Union DG SANCO/EAHC, now CHAFEA, and DEVCO/EuropeAid together with the participating national partner Institutions. The financial support of the Italian Ministry of Health and ECDC is also acknowledged.

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