MediLabSecure
1st Technical Workshop on Public Health:
Multisector Risk Assessment for West Nile Virus

Paris 16-17 December 2015
This report was compiled by the MediLabSecure WP5 ISS team: Maria Grazia Dente, Silvia Declich and Flavia Riccardo. The West Nile Risk Assessment exercise was designed by the WP5 ISS team with the support of the West Nile Virus subject-matter experts Caterina Rizzo and Christian Napoli.

As the technical workshop on public health was embedded in the mid-term meeting of the project. The *Institut Pasteur* took care of the logistic organization of the workshop.

MediLabSecure is a continuation of the “EpiSouth plus” project (2010-2013). The project is funded by the European Union DEVCO/ EuropeAid (Contract Number: IFS/2013/330 961). The Project is led by the Institut Pasteur and counselled by an Advisory Board composed by international experts.
CONTENTS

Introduction 4

The MediLabSecure project ................................................................. 4

Overview of the PH Workshop 5

Objectives ........................................................................................................... 5
Target Audience ................................................................................................. 5
Enhancing Abilities .............................................................................................. 6
Groupwork setup ................................................................................................. 6
Role of facilitators and rapporteurs ..................................................................... 7

The exercise step by step 8

Step 1: Technical presentations ................................................................. 8
Step 2: Technical presentation debriefing in context ......................................... 8
Step 3: Risk perception ...................................................................................... 9
Step 4: ECDC Tool consultation and discussion with a focus on surveillance .... 10
Step 5: SWOT analysis ....................................................................................... 10
Restitution .......................................................................................................... 10

The exercise evaluation 12

Conclusions 14

Resources 15

Appendices 16

Appendix A: event schedule ........................................................................... 16
Appendix B: Exercise schedule and summary of tasks .................................... 17
Appendix C: SWOT Template ............................................................................. 18
Appendix D: Exercise Evaluation Form ............................................................ 19
Introduction

THE MEDILABSECURE PROJECT

Countries of the Mediterranean and Black Sea regions have common sea borders and, as a result, share common public health issues and threats. MediLabSecure is a European project (2014-2017) that aims at consolidating a Public Health and Laboratory Network on emerging zoonotic vector borne viruses.

It represents a cluster for awareness, risk assessment, monitoring and control of these vector borne diseases. This cluster pursues the interaction of four sub-networks, one laboratory network for human health, one laboratory network for animal health, one laboratory network for entomology and one network for public health reinforcement. The MediLabSecure network includes partner countries around the Mediterranean and Black Sea Regions (19 non-EU countries).

General objectives

- Create a framework for collaboration to improve surveillance and monitoring of emerging vector borne viral diseases (arboviruses)
- Provide training for public health experts in participating countries to increase the communicable disease control in the Mediterranean and Black Sea region.
- Promote knowledge development and transfer of biosafety best laboratory practices

Specific objectives

Prevent spread of viruses and concerned vectors (mosquitoes):

- Prevent outbreaks of zoonotic viruses with an existing identified or potential risk in the region (West Nile, Dengue, Chikungunya, Yellow Fever, Rift valley fever, ...)
- Improve integrated surveillance (animal, human, entomological)
- Provide risk assessment of the different emerging viruses (transmission, spread, human impact...)
- Recommend and implement public health measures for control where possible

For more information, visit http://www.medilabsecure.com/project.html
Overview of the Public Health Workshop

The Public Health (PH) workshop consisted in the conduction of the Multisectorial Exercise on Risk Assessment. This exercise was designed to foster small group discussion on surveillance integration in the framework of One Health, on the status of West Nile Virus surveillance in the region in relation to what proposed in the ECDC tool and on the applicability of the ECDC tool in a non EU context.

OBJECTIVES

The goal of this exercise was:

- To enhance knowledge on multi-sectoral/integrated Risk Assessment (RA) for West Nile Virus disease (WNV)
- To make the participants aware of the ECDC Tool for RA for WNV
- To enrich, if appropriate, the Tool on the basis of the exercise’s outcomes
- To encourage multisectoral collaboration and exchange.

TARGET AUDIENCE

This exercise was held on the second and third day of the MediLabSecure mid-term meeting in December 2015.

Invited participants to this event included:

- Laboratory staff from human and veterinary sectors (heads of labs and nominees)
- Entomologists (heads of labs and nominees)
- PH officials MoH/IPH (Ministries of Health or Institutes of Public Health, including those from the former EpiSouth Network and Vector-borne disease nominees)

Participants were all mid-career/senior staff with expertise from the different sectors in each country.
ENHANCING ABILITIES

The exercise was designed to enable participants to:

- Describe how a multi-sectoral/integrated Risk Assessment (RA) for West Nile Virus disease (WNV) could be conducted
- Discuss pros and cons of the ECDC RA tool in relation to their national experience and context
- Propose ways in which the ECDC tool could be improved to better fit national requirements of non EU/EEA countries.

GROUPWORK SETUP

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

<table>
<thead>
<tr>
<th>Groups</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
<th>Group 5</th>
<th>Group 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Black Sea 1</td>
<td>Black sea 2</td>
<td>North Africa</td>
<td>Balkans 1</td>
<td>Balkans 2</td>
<td>Middle East</td>
</tr>
<tr>
<td>N. Participants</td>
<td>9</td>
<td>8</td>
<td>14</td>
<td>11</td>
<td>14</td>
<td>17</td>
</tr>
<tr>
<td>Countries</td>
<td>Moldova, Ukraine</td>
<td>Armenia, Georgia</td>
<td>Algeria, Morocco, Tunisia, Egypt</td>
<td>Albania, Bosnia-Herzegovina, Kosovo</td>
<td>Montenegro, Serbia, R. Macedonia</td>
<td>Palestine, Turkey, Jordan, Lebanon</td>
</tr>
</tbody>
</table>

- Two trained facilitators were assigned to each group
- Each group conducted the exercise in a separate break-out room.
- Participants in each group were seated in country tables including all sectors present for that country.
- Each group nominated a Rapporteur at the beginning of activities.
ROLE OF FACILITATORS AND RAPPORTEURS

- **Facilitators** had the following tasks:
  - Guide the discussions encouraging participation,
  - Keep time, and
  - Support the rapporteur.

- **Rapporteurs** had the following tasks:
  - Summarize the main outputs of each step of the group work at the end of each step in a single slide (according to a predefined template),
  - Share and discuss the slides with the group participants at the end of the group work ahead of restitution,
  - Present the slides on behalf of the group at the end of the exercise.
The exercise step by step

STEP 1: TECHNICAL PRESENTATIONS

The first step of the exercise was the delivery of two technical presentations on WNV risk assessment to all the participants. The objective of this step was to

- enhance knowledge on multi-sectoral/integrated Risk Assessment (RA) for WNV
- make the participants aware of the ECDC Tool for RA for WNV

Experts from the European Centre of Disease Prevention and Control (ECDC) were invited.

**Content:**

- 30min - Risk assessment aims and methodology (ECDC- Mr Wim Van Bortel)
- 30min - How ECDC performs WNV risk assessment (ECDC- Mrs Laurence Marrama)

The technical content presented by the experts provided participants with the knowledge basis to perform the remaining steps of the exercise.

STEP 2: TECHNICAL PRESENTATION DEBRIEFING IN CONTEXT

Following these presentations, participants were divided in six small groups by country according to proximity and sat in country tables.

In this environment participants nominated their rapporteur and discussed, with the help of facilitators, the presentation received. In particular participants answered the following questions:

- Is WNV RA carried out in your countries?
- Are the aspects of RA presented by ECDC also considered in your countries/among different sectors?
- Is a multi-sectoral/integrated approach in your countries?

The objective of this step was to:

- Share experiences on how a multi-sectoral/integrated Risk Assessment (RA) for West Nile Virus disease (WNV) could be conducted
- Discuss the ECDC Methodology for RA for WNV (pros and cons)
At the end of a 30 minute discussion the rapporteur prepared, with the help of the group, one restitution slide on the basis of a predefined template.

### STEP 3: RISK PERCEPTION

The third step of the exercise consisted in the identification of the perceived risk of WNV transmission in the sub-region represented in each group according to the methodology proposed in the ECDC tool. The objective of this step was therefore to identify the perceived risk of WNV using the ECDC tool.

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

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

**Table 1 – Seasonal risk levels of WNV transmission to humans (ECDC Tool)**

**Figure 1 – example risk scoring result**
After 15 minutes, the rapporteur prepared, with the help of the group, one restitution slide by taking a picture of the poster.

STEP 4: ECDC TOOL CONSULTATION AND DISCUSSION WITH A FOCUS ON SURVEILLANCE

The fourth step of the exercise lasted 30 minutes and consisted in the consultation and discussion of the ECDC tool. The objective of this step was to:

- Make the participants aware of the ECDC Tool for RA for WNV (focus on columns 1-3)
- Discuss pros and cons of the ECDC RA tool in relation to participant’s national experience and context
- Propose ways in which the ECDC tool could be improved to better fit national requirements of non EU/EEA countries.

Based on most predominant risk area identified in the group poster, the ECDC tool was consulted and discussed according to the following questions:

- Are questions asked pertinent to the sub-regional context?
- Are the surveillance recommendations implemented in the sub-region?
- Is the ECDC tool applicable to the specific non-EU sub-regional context?

At the end of this session the rapporteur prepared, with the help of the group, one restitution slide on the basis of a predefined template.

STEP 5: SWOT ANALYSIS

The final step of this exercise was a 45 minute session with the objective to:

- Discuss pros and cons of the ECDC RA tool in relation to participant’s national experience and context
- Propose ways in which the ECDC tool could be improved to better fit national requirements of non EU/EEA countries.

The methodology chosen for this session was the Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis. This is a structured planning method that aims to increase awareness of the status of an activity/business and is helpful in both strategic planning and decision-making.

During this exercise each country table (including participants from the same country and different professional sectors) conducted a SWOT analysis on the basis of a predefined template looking at:

- Strengths in the country in relation to surveillance in place and the risk level assessed.
- Weaknesses in the country in relation to surveillance in place and the risk level assessed.
- Opportunities in the use of the ECDC tool in their context
- Challenges in using the tool in their context.

Findings were then discussed in the whole group and summarized in a single subregional SWOT output that was included in the last restitution slide.

RESTITUTION

On the 17th of December the rapporteurs of the six groups presented their slides in plenary commenting on the output of the study. The slides presented are downloadable in the private area of the website.

Recurring strengths that were mentioned in relation to WNV surveillance included:
- The existence of consolidated surveillance systems for WNV infection including entomological surveillance, animal surveillance and human surveillance,
- Existing laboratory capacity and expertise, and
- In some countries, the existence of multisectorial collaboration mechanisms across disciplines was also mentioned.

The most recurring mentioned weaknesses were:
- The need to strengthen intersectorial collaboration,
- The need to strengthen laboratory capacity for differential diagnosis and confirmation of WNV, and
- The need to strengthen surveillance systems (e.g. through active surveillance).

Some countries reported that WNV is not considered a priority for public health. These participants highlighted a lack of awareness of WNV among authorities/physicians/general public and of political commitment in supporting targeted preparedness activities.

In general, participants appreciated the ECDC tool presented and viewed its application in a non EU-context as an opportunity to strengthen WNV detection and control capacities. In particular, participants mentioned as assets the fact the tool provides a standardized method for RA producing comparable results across countries that could therefore more easily exchange experiences.

The most frequently mentioned challenges in using the ECDC tool included:
- The difficulty of retrieving adequate funding in the context of the ongoing economic crises,
- The lack of trained professionals across disciplines, leading to the need to implement training and capacity building activities,
• The difficulty of fostering sufficient political engagement to promote change in areas where WNV is not considered a PH priority.

Some countries also mentioned that unreliability of surveillance data in some countries could lead to inaccurate risk assessments using this tool and that some adaptation of the tool to the country context might be needed.

**The exercise evaluation**

At the end of the exercise all participants were asked to compile an evaluation sheet (Appendix D).

Of the 73 participants, 66 provided an evaluation questionnaire (90%).

<table>
<thead>
<tr>
<th>Group</th>
<th>N. questionnaires received</th>
<th>N. of participants</th>
<th>Response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black Sea 1</td>
<td>9</td>
<td>9</td>
<td>100%</td>
</tr>
<tr>
<td>Black Sea 2</td>
<td>8</td>
<td>8</td>
<td>100%</td>
</tr>
<tr>
<td>North Africa</td>
<td>13</td>
<td>14</td>
<td>93%</td>
</tr>
<tr>
<td>Balkans 1</td>
<td>6</td>
<td>11</td>
<td>55%</td>
</tr>
<tr>
<td>Balkans 2</td>
<td>13</td>
<td>14</td>
<td>93%</td>
</tr>
<tr>
<td>Middle East</td>
<td>17</td>
<td>17</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>66</strong></td>
<td><strong>73</strong></td>
<td><strong>90%</strong></td>
</tr>
</tbody>
</table>

Table 2 – Evaluation questionnaire response rate by group

As shown in Table 2, all participants from the Black Sea and Middle East provided feedback while lower response rates were registered among participants of North Africa (93%) and the Balkans (55% and 93%).

Overall participants expressed a very high satisfaction with the exercise (Figure 2).

![Question statement: Overall the exercise was satisfactory](image-url)
Regarding content participants reported finding the discussion topics addressed useful (Figure 3). In particular, the most recurrently mentioned strengths were: the usefulness of discussions, the exchange of expertise and information across sectors and countries, team building and exposure to the ECDC tool.

**Question statement: Discussions were useful**

![Figure 3 – Proportion of answers provided to the question on usefulness of discussions](image)

Concerning more organizational aspects, participants reported finding the exercise to be well designed and implemented. More specifically most participants found that the objectives of the exercise were well communicated (Figure 4) and that time was adequately allotted to the exercise activities (Figure 5).

**Question statement: The exercise objectives were well communicated**

![Figure 4 – Proportion of answers provided to the question on communication of objectives](image)
The participants mentioned two methodological strengths of the exercise:

- The design/Step-wise approach
- The use of the SWOT analysis

The following areas of improvement were identified:

- Including different pathogens/more examples
- Providing materials (for example, the tool) in advance

**Conclusion**

In conclusion the PH workshop was successful in implementing a practical exercise on WNV risk assessment following an integrated and intersectorial approach in the framework of One Health.

Based on the feedback received, participants were satisfied with the quality of this exercise both in general and specifically in regards to its content and its organization.

The evaluation highlighted that the exercise was successful in providing information on multi-sectoral/integrated RA for WNV and expose participants to the ECDC Tool for RA for WNV (objectives 1 and 2).
Participants provided inputs on the ECDC tool applicability in a non-EU context and insights on how the Tool might be further enriched in their context (objective 3).

Finally, participants reported that the exercise successfully promoted the exchange of expertise across sectors and countries and multisectorial team building (objective 4).

Resources

Appendices

APPENDIX A: EVENT SCHEDULE

AGENDA

Tuesday 15/12

1. Project overview
   Kathleen Victoir
   09:30

2. Animal Viralology
   Miguel-Angel Jimenez & Elisa Pérez
   09:50

3. Human Viralology
   Jean-Claude Manuguerra & Camilla Escadafoal
   10:10

4. Medical Entomology
   Vincent Robert
   10:20

5. Public Health
   Silvia Dailic & Flavio Riccardo
   10:40

6. EDEN & EDENext: ten years of EC-funded research on vector and vector-borne infections
   Renauld Loncel
   11:00

7. VectorNet, a PANEuropean network of Medical Entomologists
   Guy Hendrickx
   11:40

8. MedAPPEL: strengthening institutional capacities and collaboration in Mediterranean and Black Sea Regions to face common public health threats
   Cezio Martín de Pando
   12:20

9. EU CRN risk mitigation Ce initiative technical tools

12:30 LUNCH & GROUP PHOTO

14:30 FAO activities in One Health
   Beatrice Mouillé
   13:00

15:00 West Nile virus transmission: from enzootic to epizootic
   Jordi Figuerola
   13:50

16:00 West Nile virus changing epidemiology in Europe
   Sylvie Leclercq
   15:00

16:30 Assessment of arbovirus surveillance 15 years after introduction of West Nile virus in the United States
   Lyle Petersen
   16:30

17:00 Scientific Advisory Board meeting
   Meeting restricted to Scientific Advisory Board members
   17:00

Wednesday 16/12

4. Introduction
   Core studies on detection and response to potential public health emergencies
   Regional groups
   09:30

5. Risk assessment
   Definition, aims and methodology
   Wim Van Borrel
   12:00

6. Risk Assessment Exercise Part I
   Regional groups
   14:00

7. Regional groups

17:30 END

Thursday 17/12

7. Group presentations on the multinational exercise on Risk Assessment
   Regional groups
   09:00

8. Developing multiprofessional integrated surveillance for West Nile Virus: the example of Italy
   Caterina Rizzo & Paolo Colistri
   10:10

9. Concluding remarks
   10:30

11:45 Parallel session: discussion within specialties’ groups

Locations

- Auditorium François Jacob
- Hall François Jacob building
- Module espace congrès
- Meeting room F. jacob 28-01-01C
- Iris hotel Restaurant

Please refer to the group lists (pages 23 - 34 of meeting booklet)
## APPENDIX B: EXERCISE SCHEDULE AND SUMMARY OF TASKS PROVIDED TO FACILITATORS

<table>
<thead>
<tr>
<th>Steps of the Exercise</th>
<th>Expected Time</th>
<th>Task of Facilitator</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Technical presentations</td>
<td>60 minutes</td>
<td>Pay particular attention to those presentations as you will need to refer to them in the following step of the exercise.</td>
</tr>
<tr>
<td>• Risk Assessment definition, aims and methodology (Wim van Bortel)</td>
<td>30 minutes</td>
<td></td>
</tr>
<tr>
<td>• How ECDC performs WNV risk assessment (Laurence Marrama)</td>
<td>30 minutes</td>
<td></td>
</tr>
<tr>
<td>2. Technical presentation debriefing in context</td>
<td>30 minutes</td>
<td>Moderate discussion, Keep time, Support rapporteur in preparing restitution slide</td>
</tr>
<tr>
<td>• Discussion</td>
<td>20 minutes</td>
<td></td>
</tr>
<tr>
<td>• Restitution</td>
<td>10 minutes</td>
<td></td>
</tr>
<tr>
<td>3. Risk perception</td>
<td>15 minutes</td>
<td>Encourage each participant to identify the risk area that is mostly representative of his/her country on the wall poster using his/her sticky dot</td>
</tr>
<tr>
<td>• Scoring on bullet-target using adhesive dots (1 colour per sector)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Restitution</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. ECDC tool consultation and discussion with a focus on surveillance</td>
<td>30 minutes</td>
<td>Moderate discussion, Keep time, Support the rapporteur in preparing restitution slide</td>
</tr>
<tr>
<td>• Discussion of tool applicability in non EU countries</td>
<td>20 minutes</td>
<td></td>
</tr>
<tr>
<td>• Restitution</td>
<td>10 minutes</td>
<td></td>
</tr>
<tr>
<td>1. SWOT analysis</td>
<td>45 minutes</td>
<td>Moderate discussion, Keep time, Support the rapporteur in preparing restitution slide and finalizing restitution package</td>
</tr>
<tr>
<td>• Strengths in the country in relation to surveillance in place and the risk level assessed.</td>
<td>30 minutes</td>
<td>Collect the country SWOTs at the end of the session</td>
</tr>
<tr>
<td>• Weaknesses in the country in relation to surveillance in place and the risk level assessed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Opportunities in the use of the ECDC tool in their context</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Challenges in using the tool in their context</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Restitution</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## APPENDIX C: SWOT TEMPLATE

<table>
<thead>
<tr>
<th>Strengths in your country in relation to surveillance in place for the risk level assessed.</th>
<th>Weaknesses in your country in relation to surveillance in place for the risk level assessed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
<td>3.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities in the use of the ECDC tool in your country</th>
<th>Challenges in using the tool in your country</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
<td>3.</td>
</tr>
</tbody>
</table>
APPENDIX D: EXERCISE EVALUATION FORM

Evaluation

Please help us improve the workshop by responding candidly to the following statements:

<table>
<thead>
<tr>
<th>Scale Definition: 1 – Strongly Disagree</th>
<th>2 – Disagree</th>
<th>3 – Neither Agree nor Disagree</th>
<th>4 – Agree</th>
<th>5 – Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercise objectives were well communicated</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The discussions were useful</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adequate time was allotted for explanations/practice</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall the exercise was satisfactory</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What did you like most about the exercise?


How can we improve the exercise?


Do you have any additional questions regarding this topic?


If you wish us to contact you, please provide the following information:

<table>
<thead>
<tr>
<th>Name</th>
<th>Email</th>
<th>Telephone Number</th>
</tr>
</thead>
</table>