

Regional Experience 3

North Africa Network

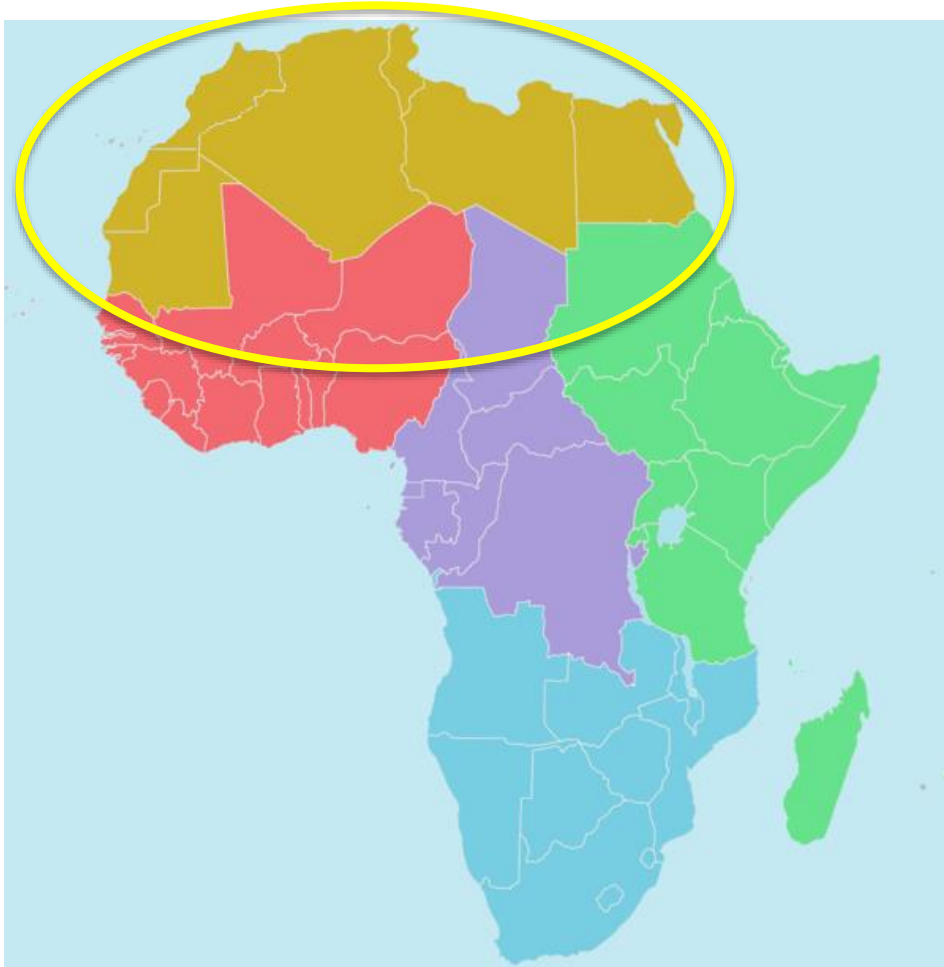


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Workshop on Innovative Approaches to Establishing and Strengthening Regional Laboratory Networks for Disease Surveillance and Clinical Care in Africa”

27–29 March 2017, Addis Ababa, Ethiopia

Northern African countries



- Mauritania
- Morocco
- Algeria
- Tunisia
- Libya
- Egypt

Regions of the African Union: North Southern East West Central

Northern African countries

Area = 7 050 000 km²

Population = 190 M

Mauritania :

- *Area:* 1,030,000 km²
- *Population :* 4 M (2015)
- *GPD/capita :*\$4,404^[4]

Morocco :

- *Area:* 710.850 km²
- *Population :* 34 M
- *GPD/capita :*\$4,900

Algeria :

- *Area:* 2,381,741 Km²
- *Population :* 40 M (2016)
- *GDP/capita :*\$7,400 (2010)

Tunisia :

- *Area:* 163,610 km²
- *Population* 11 M
- *GPD / capita :* \$11,400

Libya

- *Area:*1,759,540
- *Population :* 6 M (urban%)
- *GPD/capita:* \$13,800 (2010)

Egypt :

- *Area:* 1,001,451 km²
- *Population :* 95 M
- *GDP/capita :*\$6,200 (2010)

Morocco

■ **Ministry of Health**

- Directorate of Epidemiology and Diseases control (\approx CDC)
- Public Health Laboratories
 - ✓ National Institute of Hygiene (INH)
 - ✓ Pasteur Institute Morocco (IPM)
- Regional & provincial Clinical Laboratories
 - ✓ Public Hospitals : University (5) : Ibn Roch , Ibn Sina, Mohamed6, ..
 - ✓ Private hospitals (2) Cheikh Khalifa , Cheikh Zaid
- National Reference Laboratories & Laboratory Networks :
Influenzae , Tuberculosis & VIH
Polio, Measles , STI
With integration of Private sector

■ **Other jurisdictions** as part of the One Health Concept :

- Ministry of agriculture : (ONSSA) alimentary , veterinary , environmental
- Ministry of Interior
- Ministry of Defense : Military hospitals ,

Algeria

- **Direction Générale de la Prévention et de la Promotion de la Santé**
 - Direction de la Prévention et de la Lutte Contre les Maladies Transmissibles
 - Direction des Maladies non Transmissibles
 - Direction de la Prévention Socio-Environnementale
- **Public Health Laboratories :**
 - National Public Health Laboratory (INSP)
 - Institut Pasteur of Algeria : Reference laboratory for TB , Influenzae, polio, Measles , vector borne ,
 - Hospitals : university , provincial , ...
 - **Laboratory Network** : Algerian Antimicrobial Resistance network (**AAR**)
- **Other jurisdictions :**
 - Military
 - veterinary

Tunisia

- **National Observatory** of New and Emerging Diseases: Established on 2005 missions : Early warning system (integration of EBS and networking private and public sectors) and preparedness plan
- **Directorate of primary Health Care:** surveillance of vaccine preventable diseases (MDO)

 Next goal is to have common databases

- **Public Health Laboratories :**

- ✓ **Institut Pasteur of Tunis**

References and WHO Collaborative Centers: Leishmaniasis, Rabies , Arboviruses , Viral hepatitis , Measles

- ✓ **University Hospitals & Clinical laboratories :**Reference laboratories

C. Nicoles: Influenzae , HIV , AMR....

La Rabta : Malaria

- ✓ **Laboratory Network:** National Antimicrobial surveillance Network (LAT)

Egypt

- **Department of Epidemiology and Surveillance (DES)**
Influenzae like illnesses , SARI (Severe Acute Respiratory Infection) and Pneumonia , Viral Hepatitis , Arboviral diseases & Typhoid
- **Communicable Diseases Department**
 - ✓ Programs : Zoonotic Diseases ,Meningitis , AIDS, Leprosy
 - ✓ Epidemic Control
 - ✓ Expanded Program of Immunization (EPI)
- **Central Public Health Laboratory**
 - ✓ **Tuberculosis (TB)** laboratory as a Supranational reference lab for the Eastern Mediterranean Region (EMRO), Technical and capacity building services to some African Countries; Sudan, Eretria, Libya and Nigeria
 - ✓ **Microbiology laboratory** as a WHO regional reference laboratory for Invasive Bacterial Preventable for Sudan and other 6 Asian countries
 - ✓ **Virology laboratory** as a reference lab for confirmation of HIV

Libya

المركز الوطني لمكافحة الأمراض
National Center For Diseases Control



ابحث في الموقع

- الرئيسية
- أخبار المركز
- عن المركز
- فروع المركز
- خدمات المركز
- تقارير
- وسائل متعددة
- المكتبة
- المنافذ الدولية



Northern African Countries involved in International & Regional Networks

- **Antimicrobial Resistance :**

PALM, ARMED, SOAR, TEST, SMART...

- **Virology & vector**

Episouth , Medilabsecure , MediPET emphasizing the role of Institut Pasteur in leading of the project

- **Chemical Biological& Radiological, Nuclear (CBRN) with objective of risk migration**

- **WHO Network :** EDPLN (emerging & dangerous Pathogens Lab Network

Antimicrobial Resistance Networks through Microbiological laboratories of university hospitals

Completed Projects :

- **PALM PROJECT 1994-1998** (Pan African Link through Microbiology)
8 countries (**Morocco, Algeria , Tunisia**, Senegal, Cameroun, Ivory Coast , Kenya , Nigeria)- Survey of Antibiotic Resistance of clinical pathogens *supported by Beecham SmithKline*
- **ARMED Project** : Antibiotic Resistance survey in Mediterranean countries , 2003- 2005 : **Morocco , Algeria , Tunisia , Egypt**, Jordan, Libanon, Chypre and Malta supported by EU project
- **SOAR Project** : Survey of Antibiotic Resistance (SOAR) - Ten Countries in Africa and the Middle East 2004-2006- (**Morocco, Tunisia**, Senegal, Nigeria, Ivory Coast), *supported by GSK*

Current :

- **TEST** : Global antimicrobial susceptibility surveillance : Evaluation and Surveillance ,ongoing since 2004.
- **SMART** : **Global** Study for Monitoring Antimicrobial Resistance Trends ongoing since 2002

Networks for Control of Public Health Threats

EpiSouth –EpiSouth Plus – MediLabSecure



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

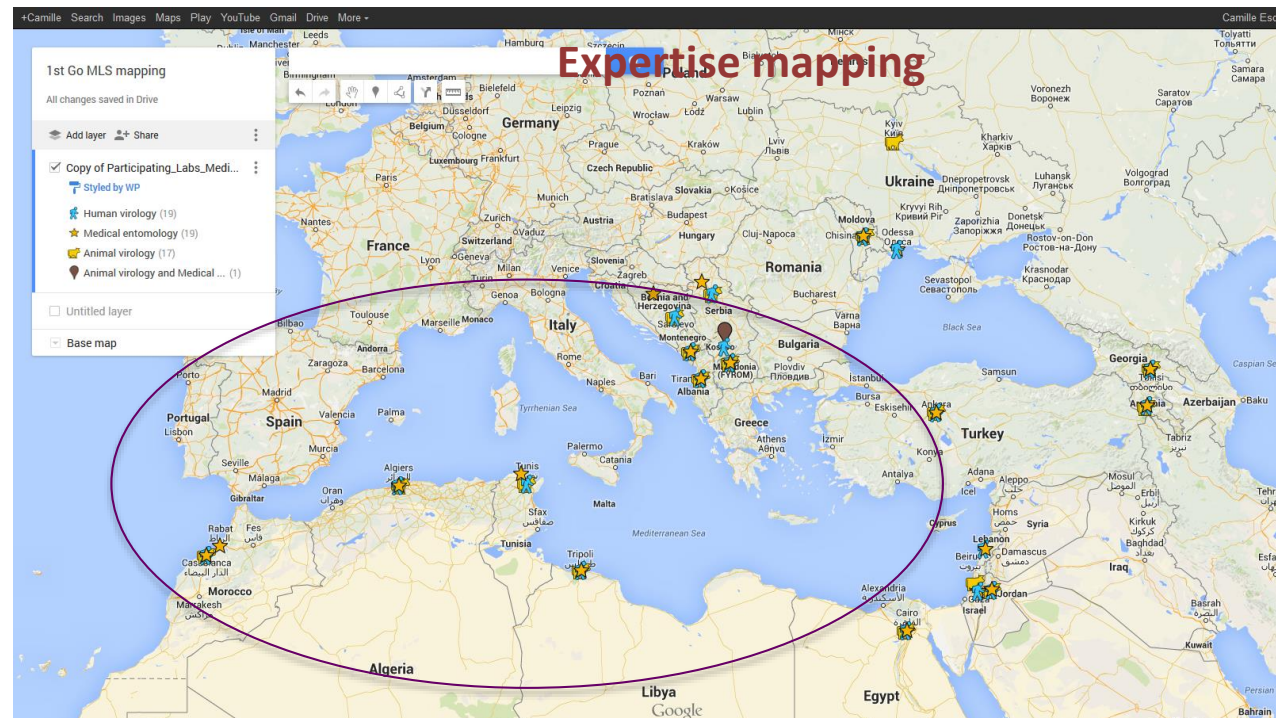
2006 – 2010 , 2010 – 2014



MediLabSecure

2014 - 2017

Network of virology and entomology laboratories for a One Health approach of vector-borne and respiratory viruses in the Mediterranean and Black Sea regions





Specific objectives

- Create a framework for **collaboration to improve surveillance** and monitoring of **emerging vector-borne viral diseases and emerging respiratory viruses** in order to:
 - **Prevent spread** of viruses and concerned vectors
 - **Prevent outbreaks** of zoonotic viruses with an existing risk in the region
 - **Provide risk assessment** of the emerging viruses
- Promote knowledge in biosafety and transfer of best laboratory practices
- Improve **integrated** multi-sectorial surveillance (animal, human, entomological)

Organisation



Coordination, communication and dissemination

WP1



**Animal
Virology**



WP2

**Human
Virology**



WP3

**Medical
Entomology**



WP4

**Public
Health**



WP5

Steering Team

Member Laboratories and units/ **Fpoints in MoH - CoE**

Advisory Board (external)





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

MediPIET

project (2014-2017) linked to the Chemical, Biological, Radiological and Nuclear Centers of Excellence initiative Scientific leadership of European CDC

Objective : Development and Consolidation of the Mediterranean Programme for Epidemiology Training

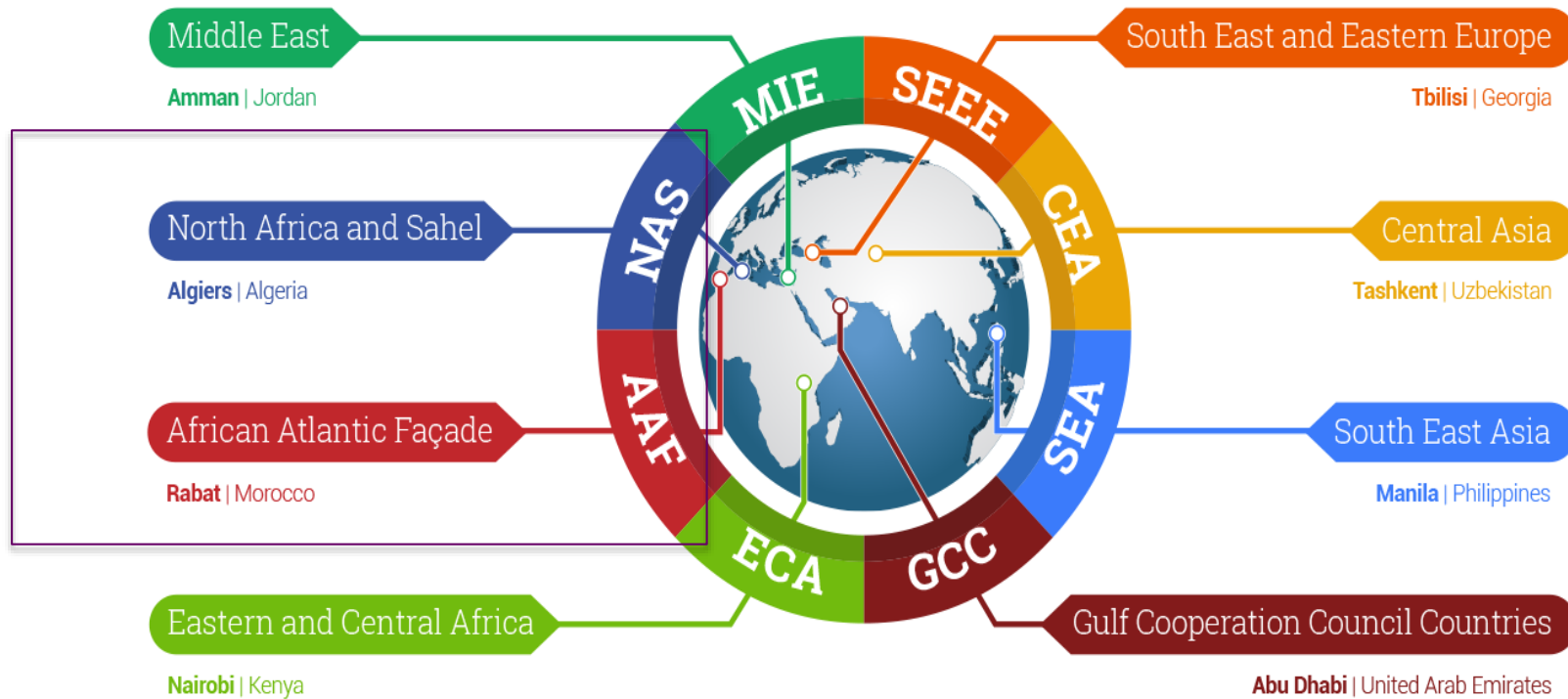
18 countries of the Mediterranean, Balkans and Black Sea basins: Algeria, Morocco, , Libya, Tunisia, Egypt,

Spain, France and Greece : scientific and institutional advice

Supported by EU

Chemical , Biological , Radiological and Nuclear Centers of Excellence (CBRN CoE)

The CoE aims to strengthen regional security by increasing local ownership, local expertise and by ensuring long-term sustainability through this dynamic network that continues to evolve.



WHO laboratory Networks : EDPLN

Emerging and Dangerous Pathogens Laboratory Network

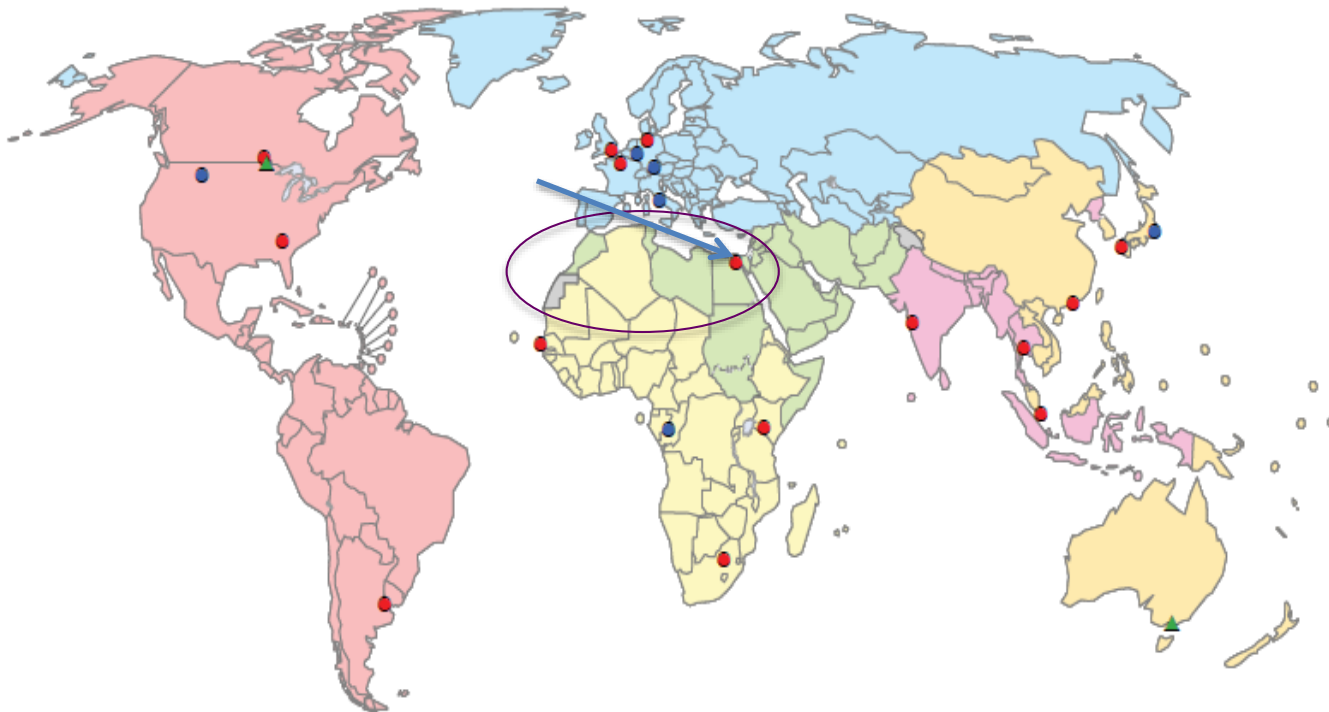
Global and Regional EDPLN of High security human and veterinary diagnosis laboratories

EDPLN - 23 members globally

WHO regions

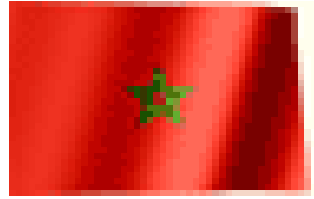
- African Region
- Region of the Americas
- South-East Asia Region
- European Region
- Eastern Mediterranean Region
- Western Pacific Region

- EDPLN member (6 members)
- EDPLN member and WHO CC (15 members)
- ▲ EDPLN member and veterinary laboratory (2 members)



Conclusions

- Surveillance under responsibility of MoH
- **Laboratories**
 - Central and regional level
 - Reference laboratories in CPHL or University Hospitals
- **Laboratory Networks**
 - National Networks : some needs for more effort for organization and National Financial support
 - Regional and African Laboratory Networks should benefit from experiences of existing networks (eg IP/ IPIN) and bridge between Northern and Southern countries



**Thank you for your
attention**